

# **OE ENERGY MARKET SNAPSHOT**

## **Northeast States Version – August 2012 Data**

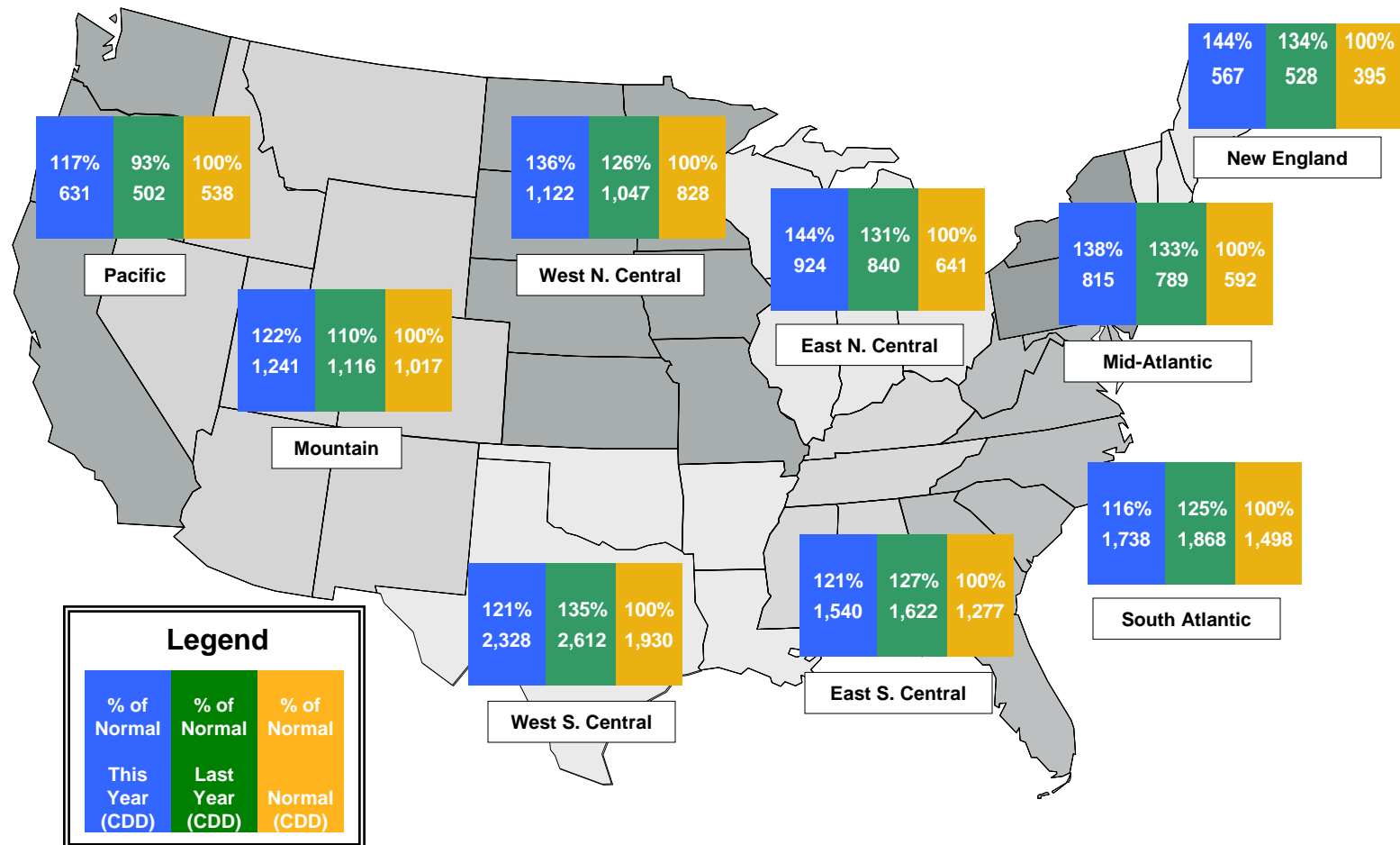
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Office of Enforcement  
Federal Energy Regulatory Commission  
September 2012



# Weather

## Regional Cooling Degree Days – January to August 2012



Source: Derived from NOAA data. Normal is based on a 30-year average of cooling degree day data.  
September 2012 Northeast Snapshot Report

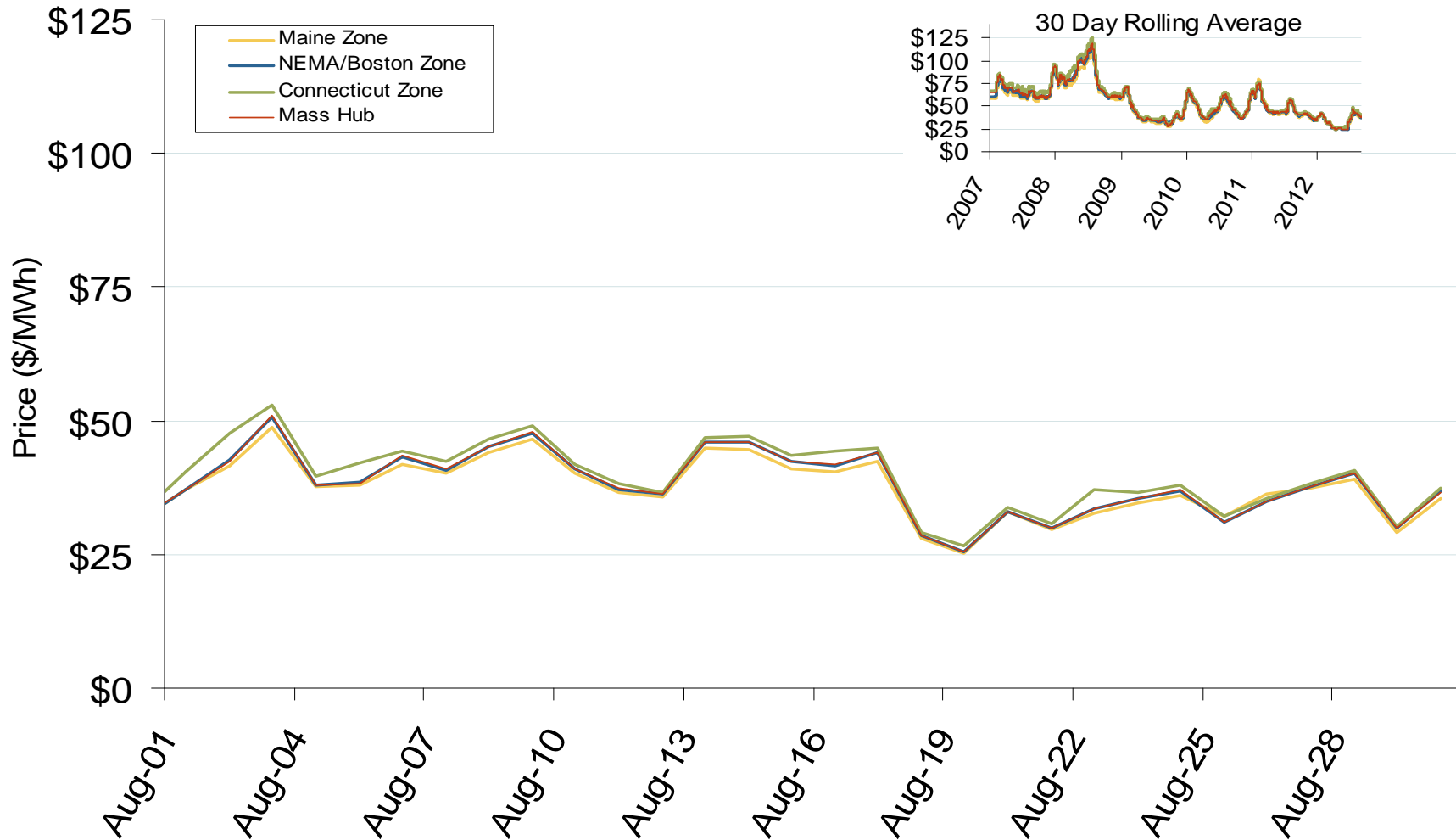


# Electricity Markets

New England Electric Market: Last Month's RTO Prices

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

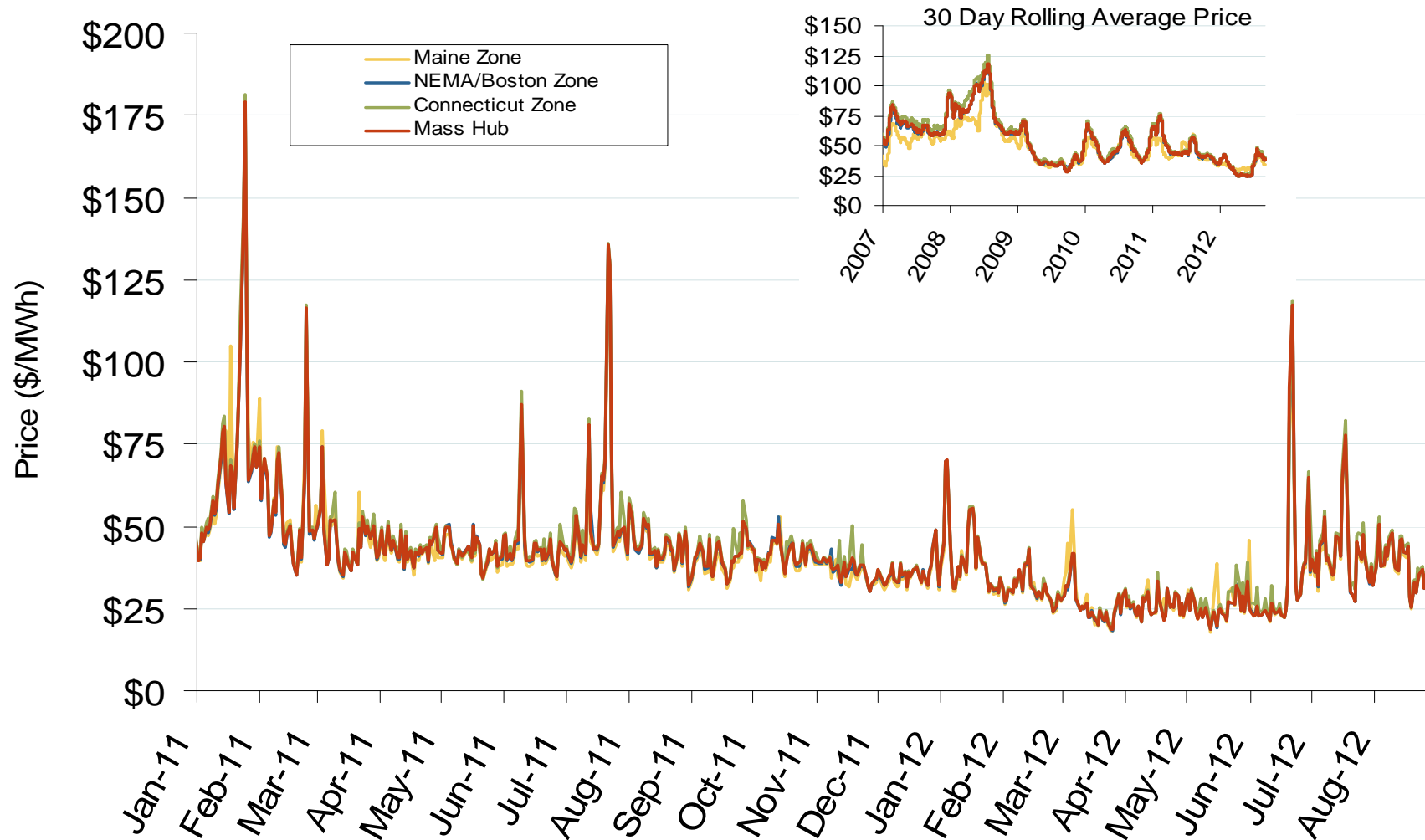
## Daily Average of ISO-NE Day-Ahead Prices - All Hours



New England Electric Market: RTO Prices

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

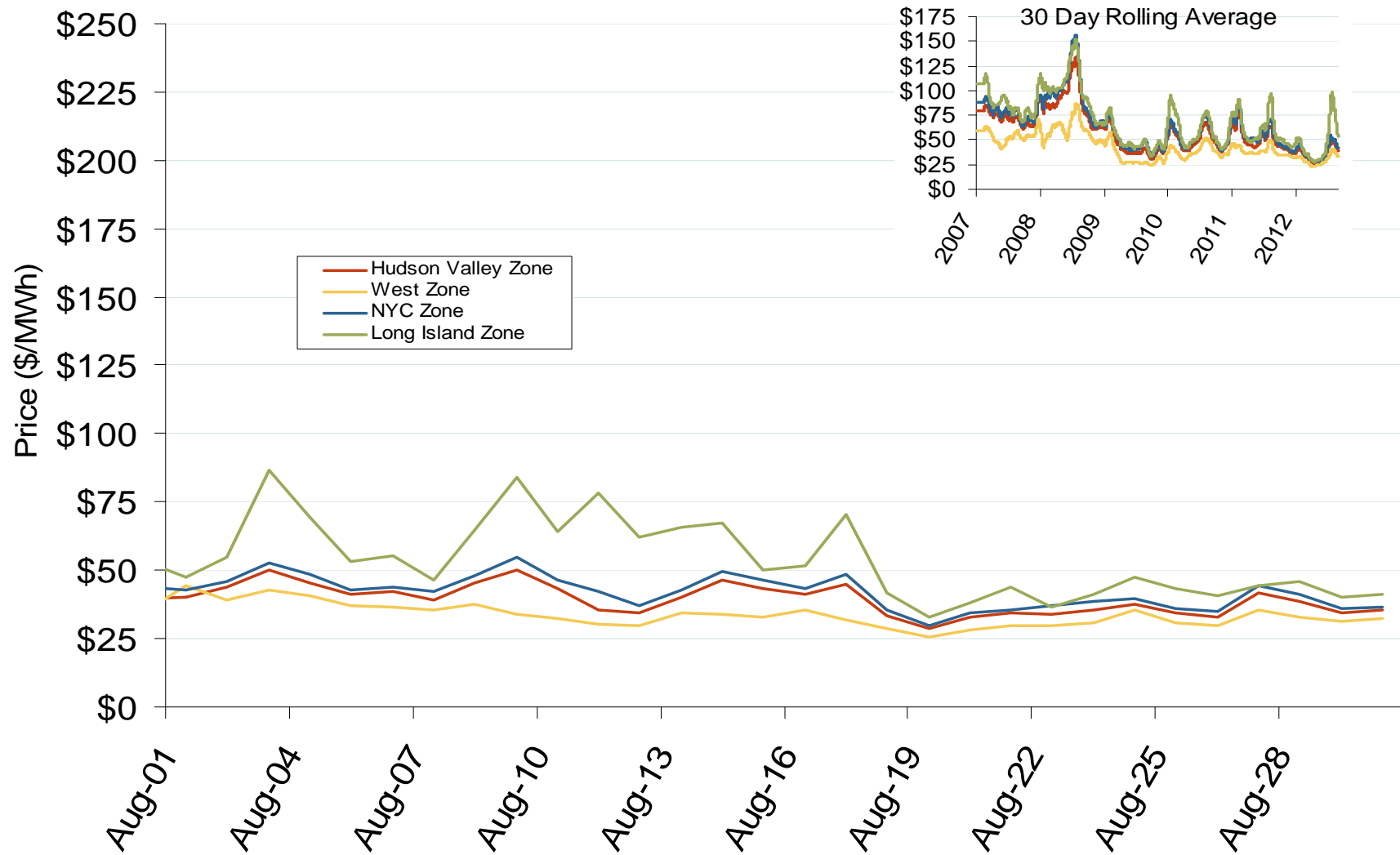
## Daily Average of ISO-NE Day-Ahead Prices - All Hours



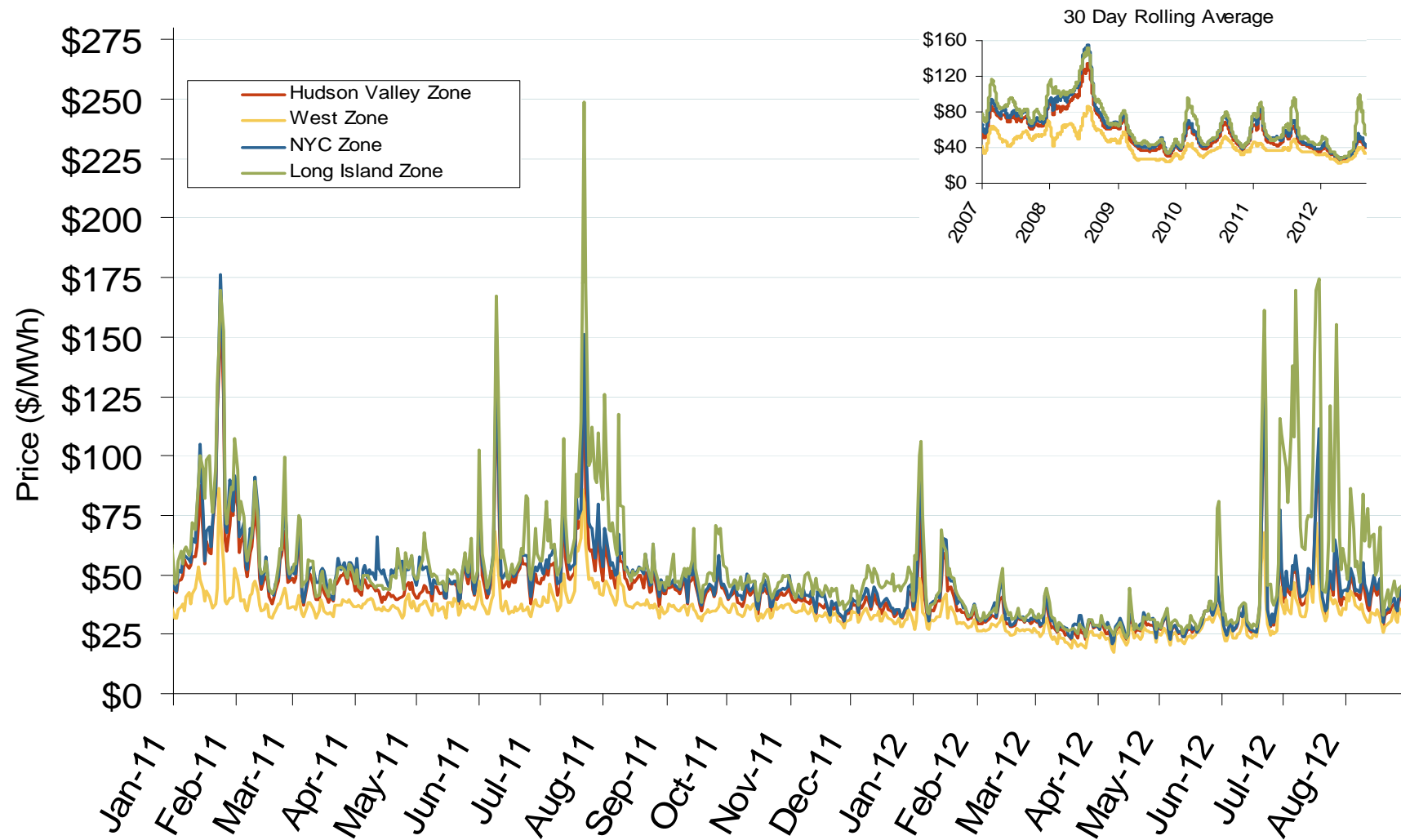
New York Electric Market: Last Month's RTO Prices

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

## 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

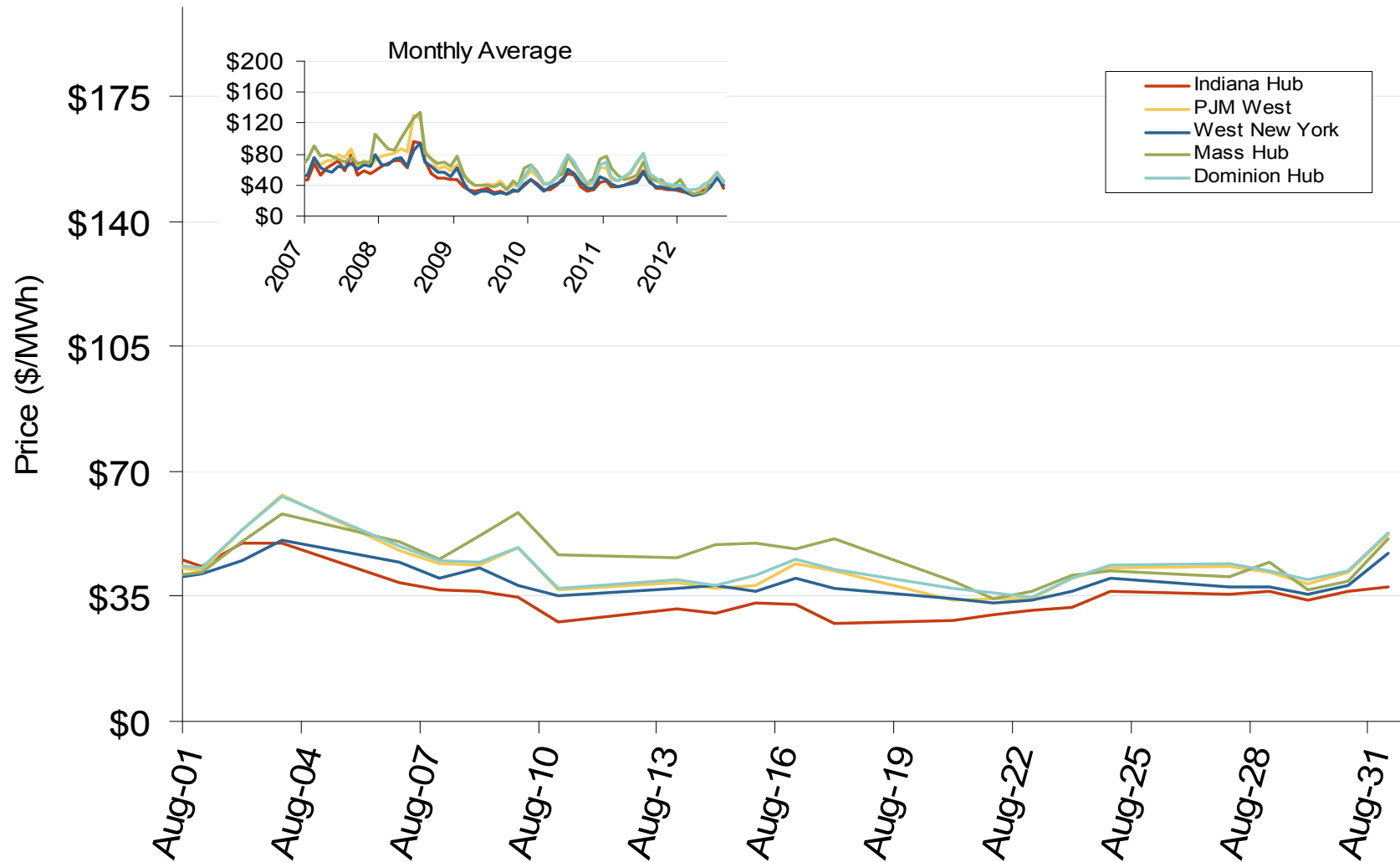
Updated: September 04, 2012



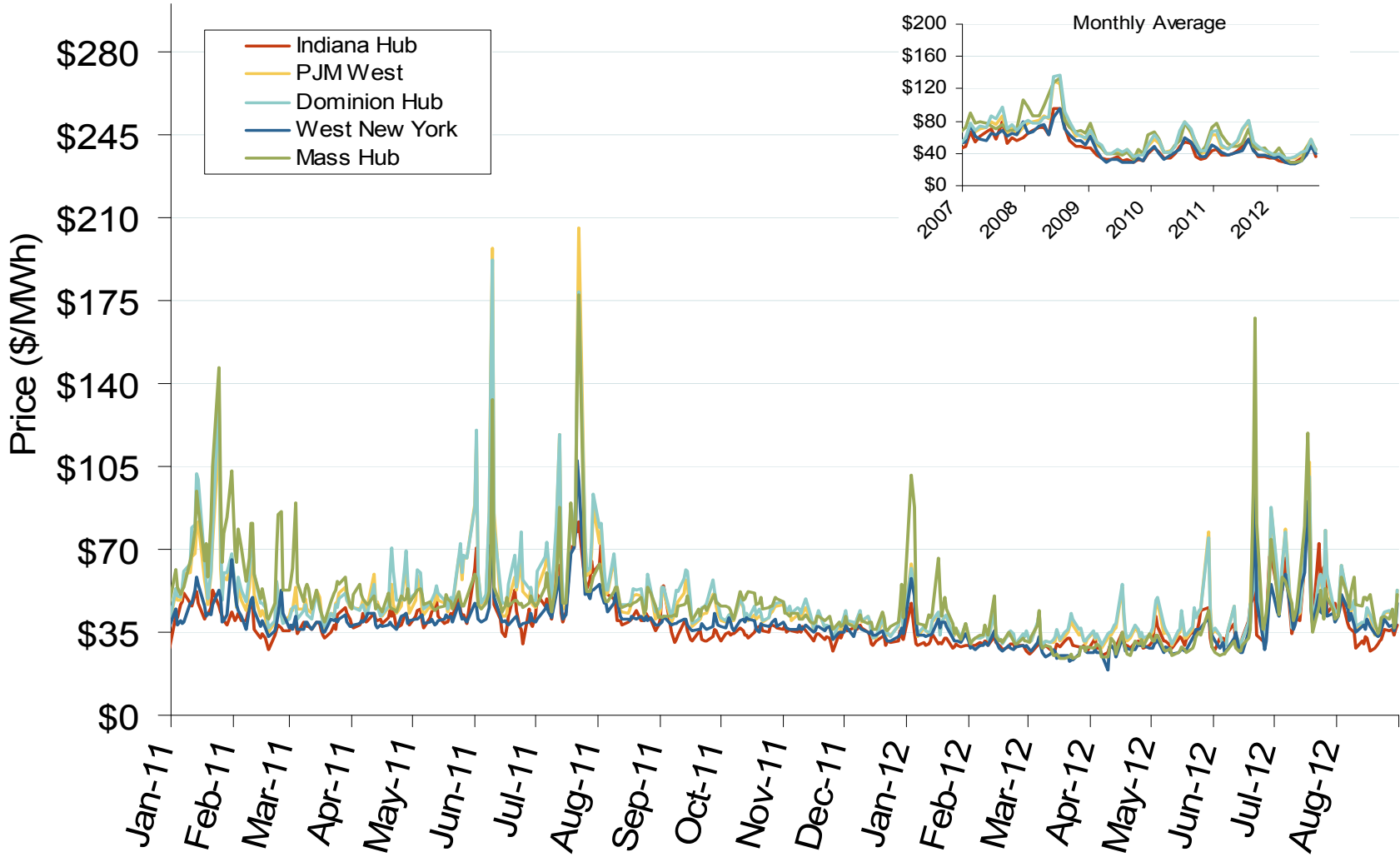
New England Electric Market: Last Month's Eastern Index Prices

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

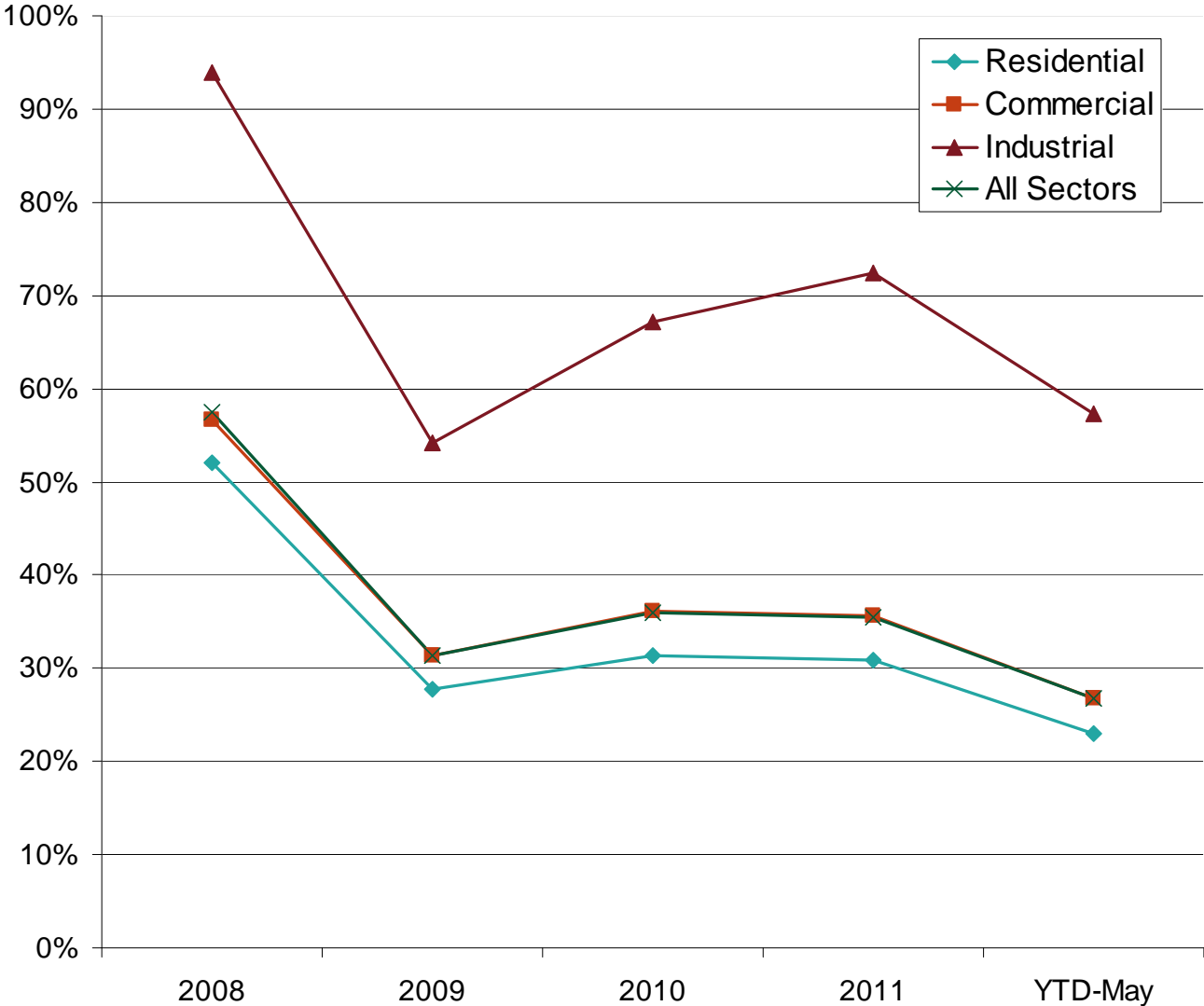
## Eastern Daily Index Day-Ahead On-Peak Prices



# Eastern Daily Index Day-Ahead On-Peak Prices



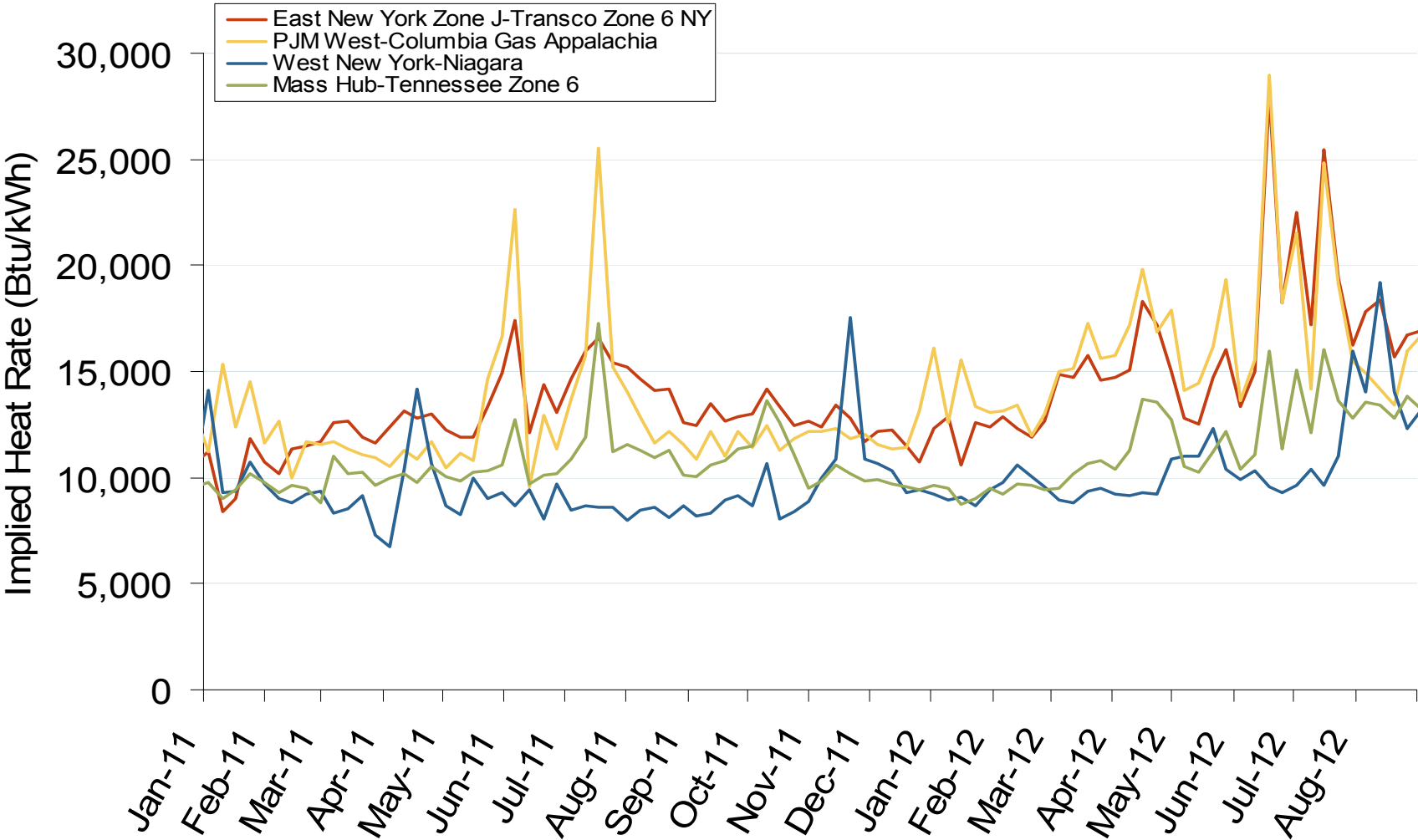
# NYISO Wholesale Costs As A Percentage of Retail Rates



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.**



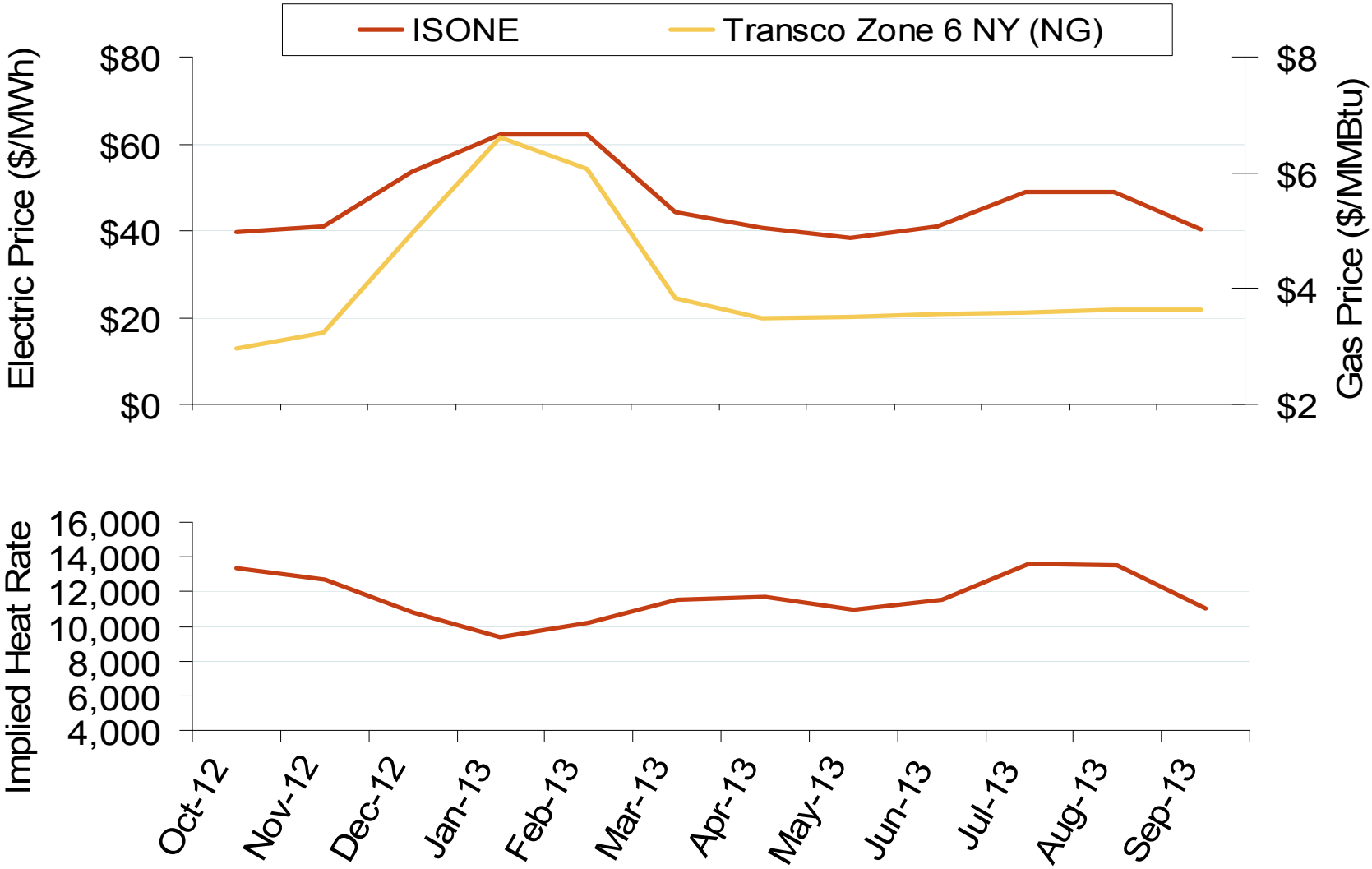
Source: Derived from Platts on-peak electric and natural gas price data  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012

New England Electric Market: Forward Price Curves

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

# New England Electric Forward Price Curves and Implied Heat Rate



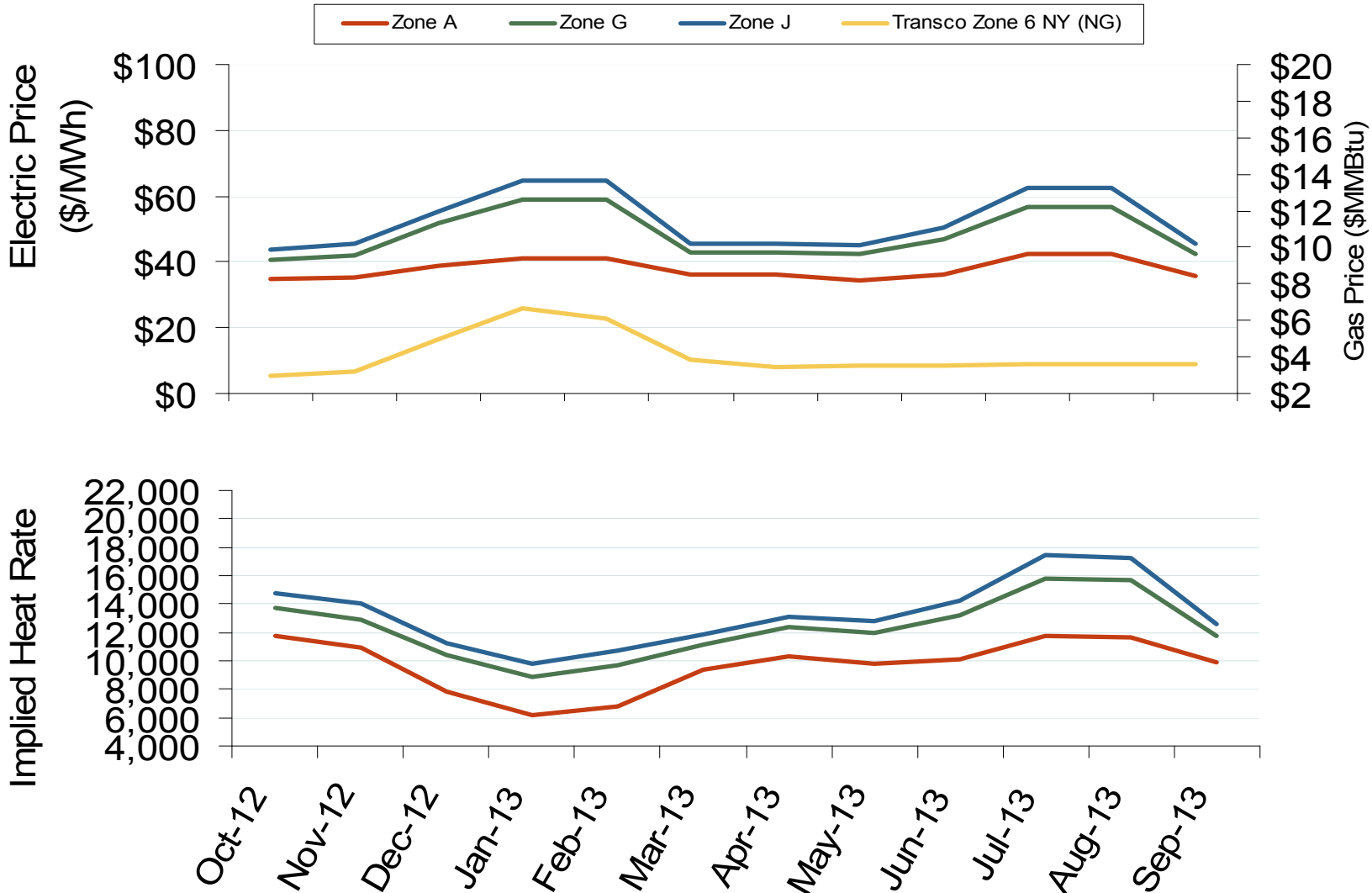
Source: Derived from Nymex data  
September 2012 Northeast Snapshot Report

Updated: September 04, 2012

New York Electric Market: Forward Price Curve

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

# New York Electric Forward Price Curves and Implied Heat Rates

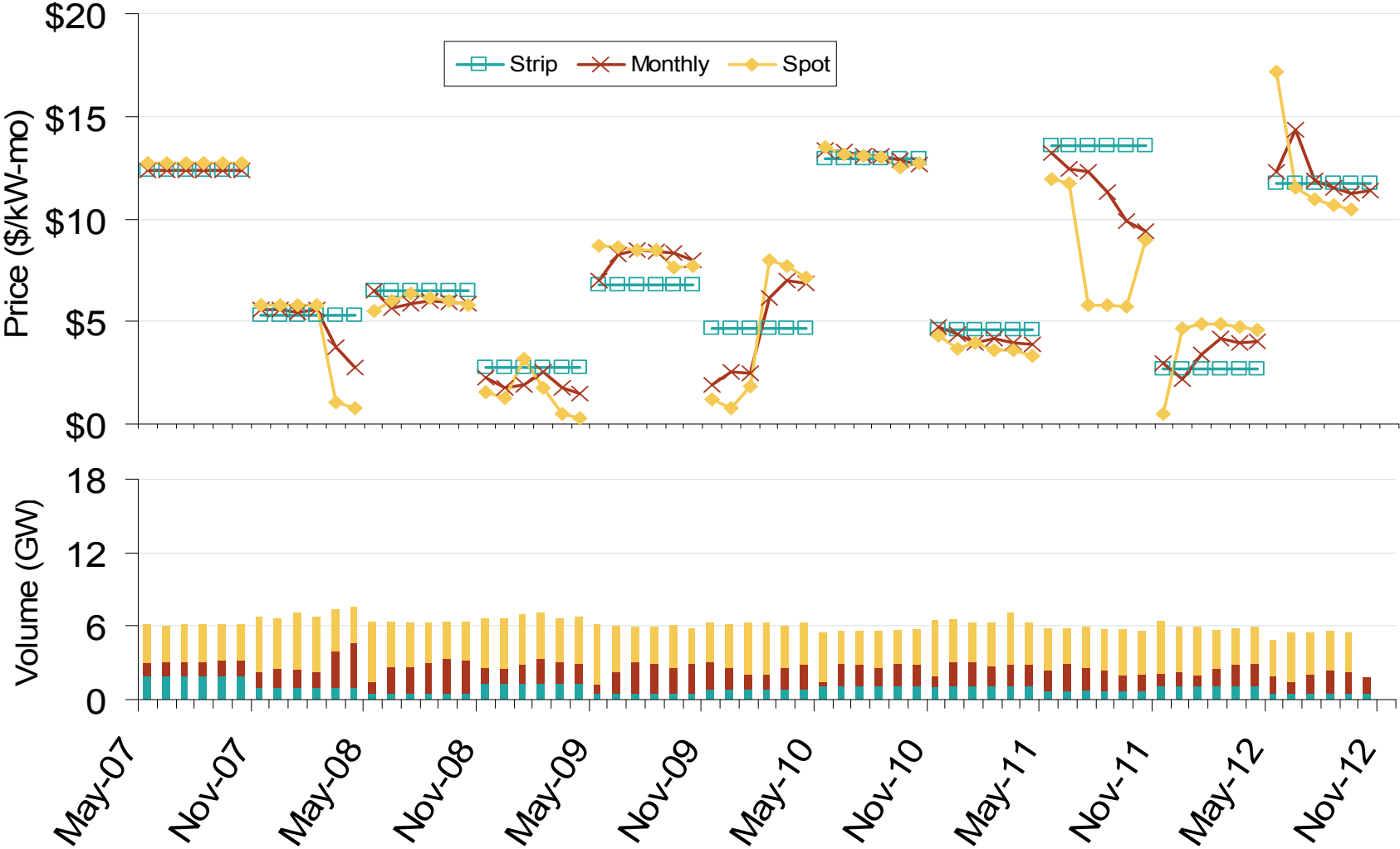


Source: Derived from Nymex data  
September 2012 Northeast Snapshot Report

New York Electric Market: New York City Capacity Markets

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

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



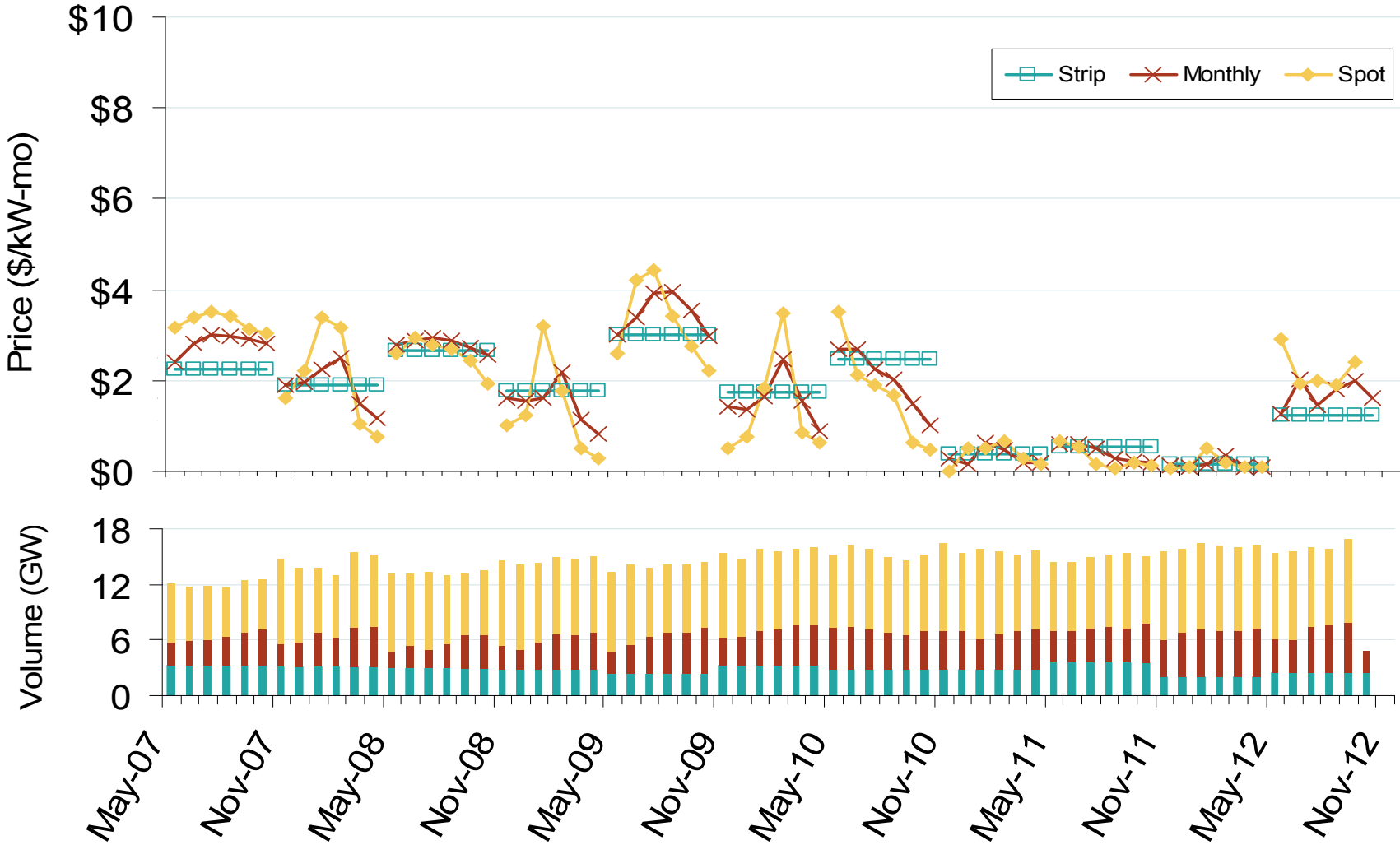
Source: Derived from NYISO data  
September 2012 Northeast Snapshot Report

Updated: August 31, 2012

New York Electric Market: New York Capacity Markets

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

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

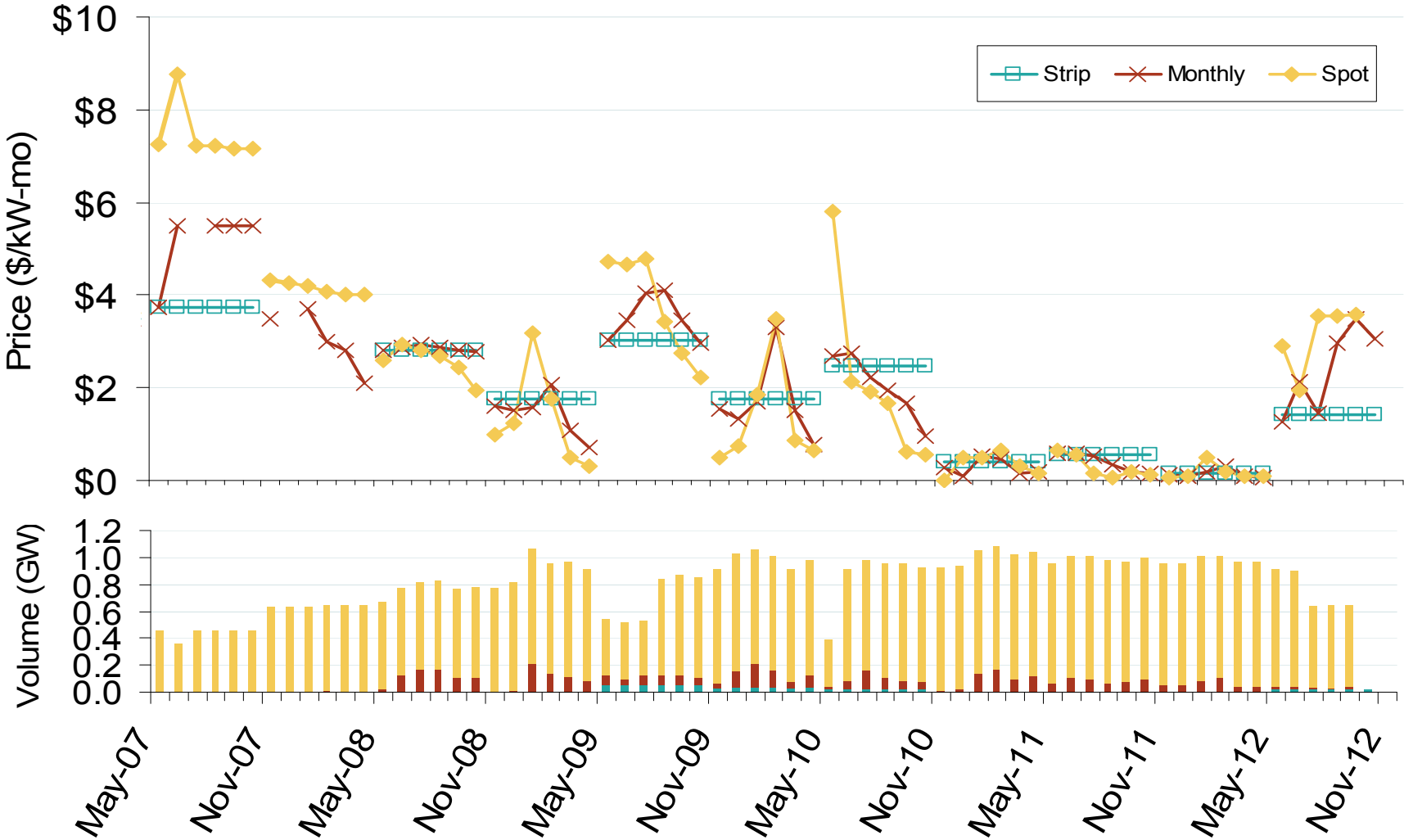


Source: Derived from NYISO data  
September 2012 Northeast Snapshot Report

Updated: August 31, 2012



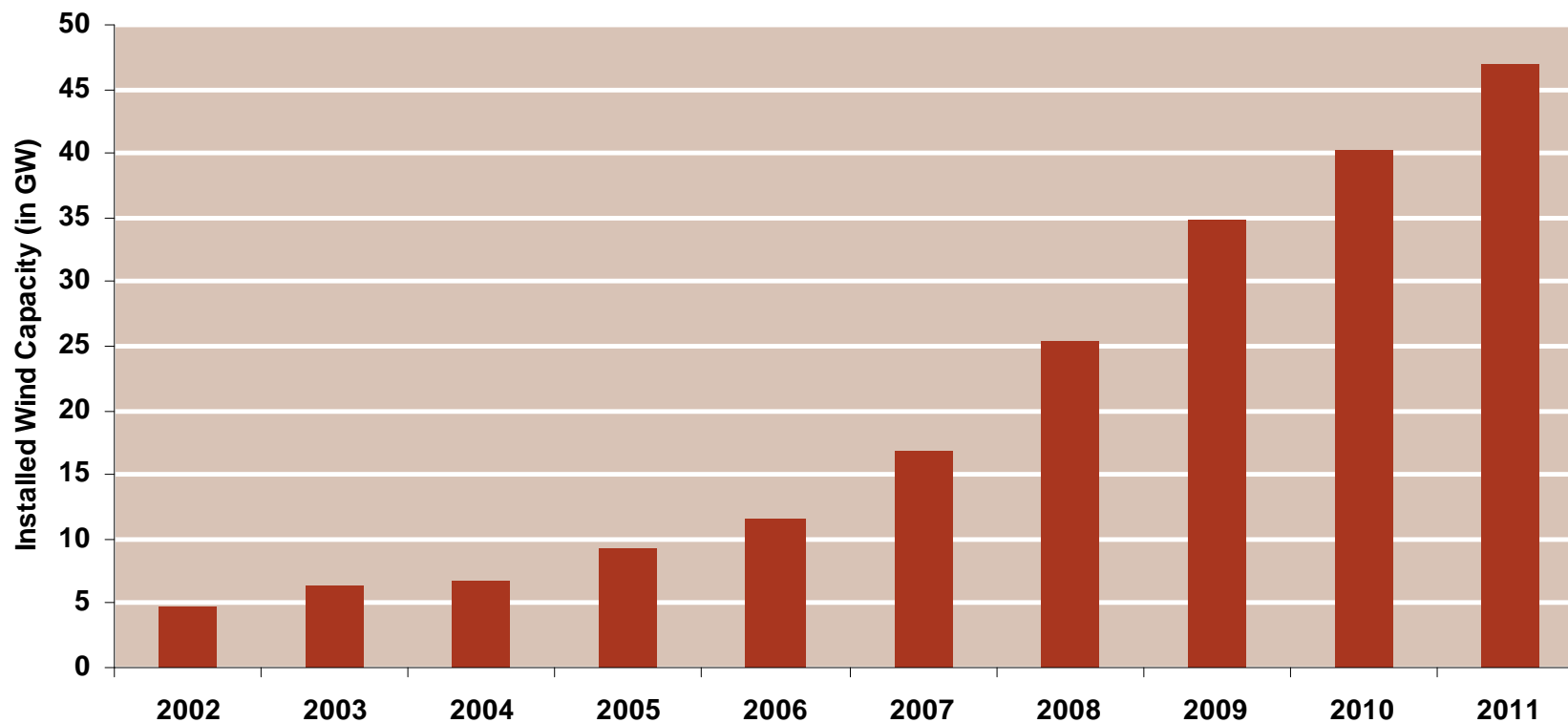
# Weighted Average ICAP Clearing Prices and Volumes: Long Island



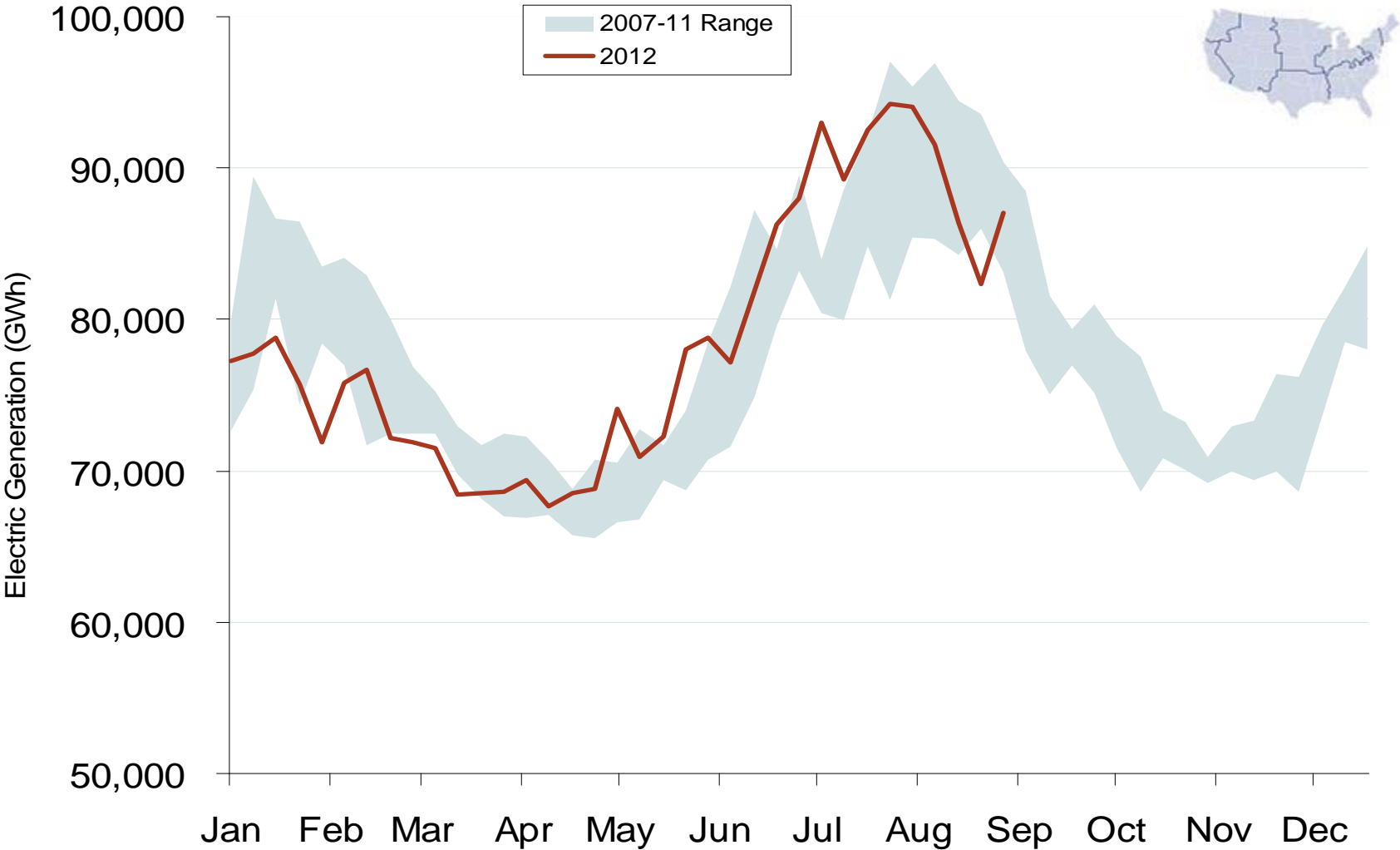
Source: Derived from NYISO data  
September 2012 Northeast Snapshot Report

Updated: August 31, 2012

## US Installed Wind Capacity Surpasses 50 GW



# Weekly U.S. Electric Generation Output

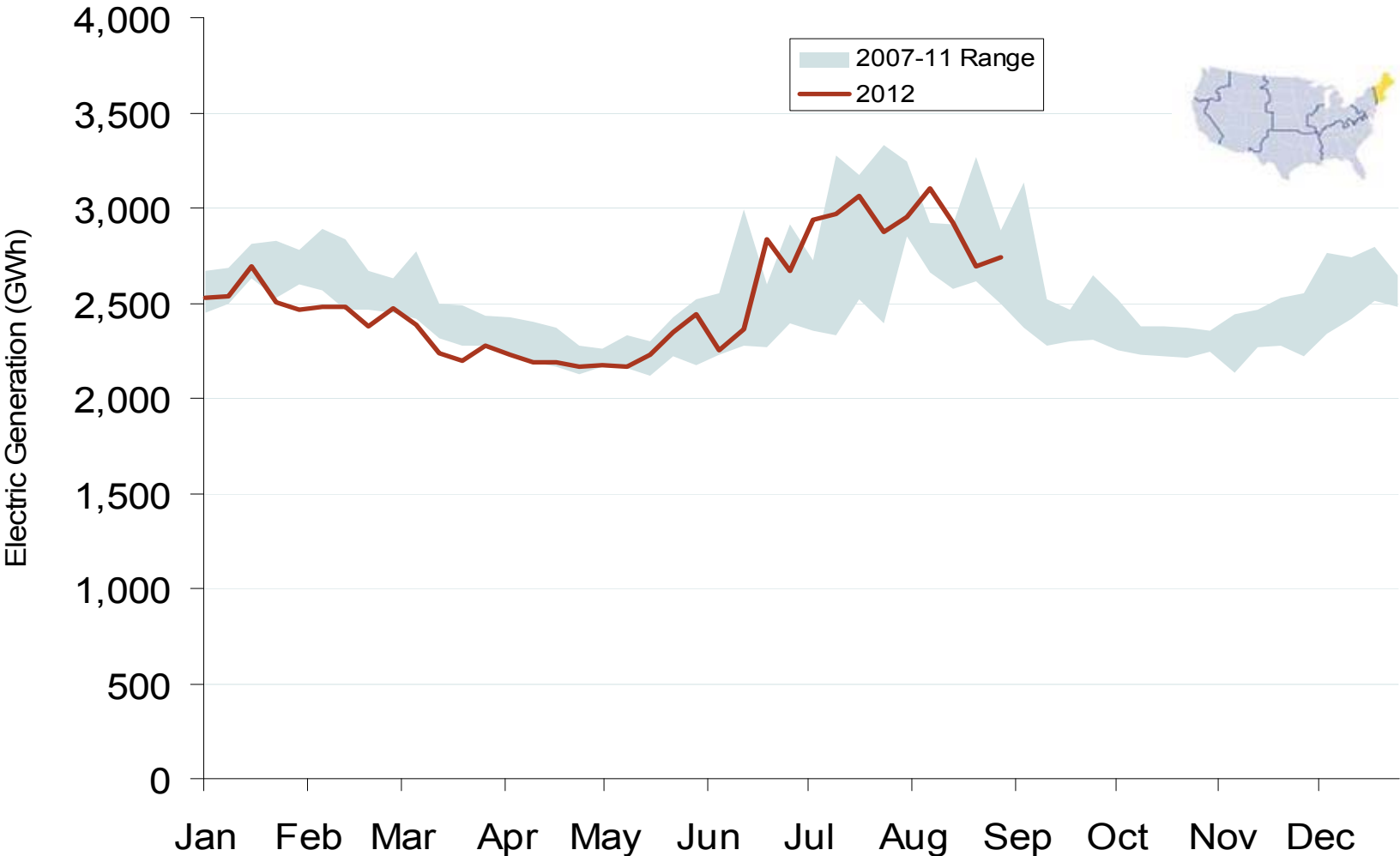


Source: Derived from *EEI* data  
September 2012 Northeast Snapshot Report

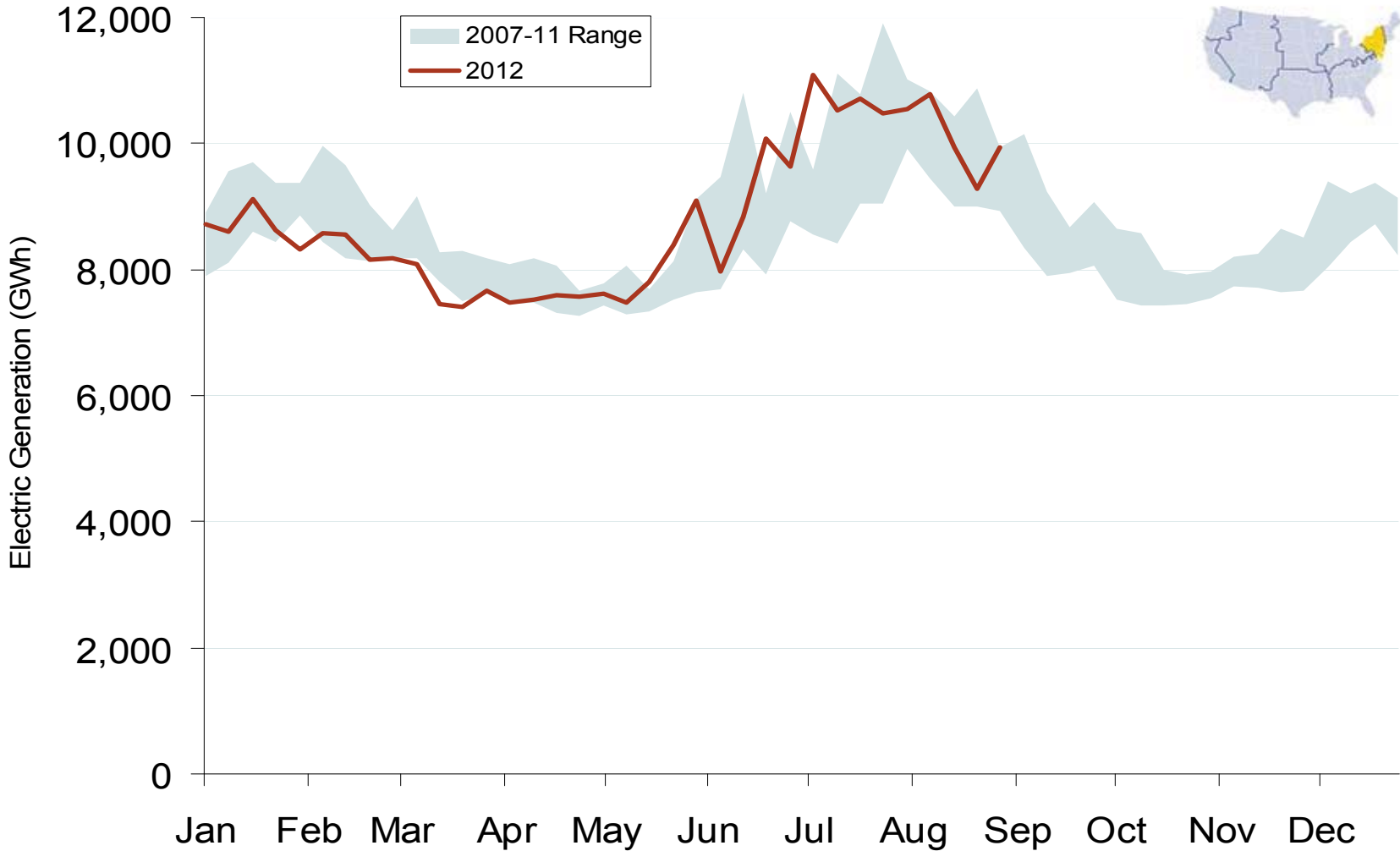
New England Electric Market: Generation Output

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

# Weekly Generation Output New England



### Weekly Generation Output - Mid Atlantic



Source: Derived from *EEI* data  
September 2012 Northeast Snapshot Report

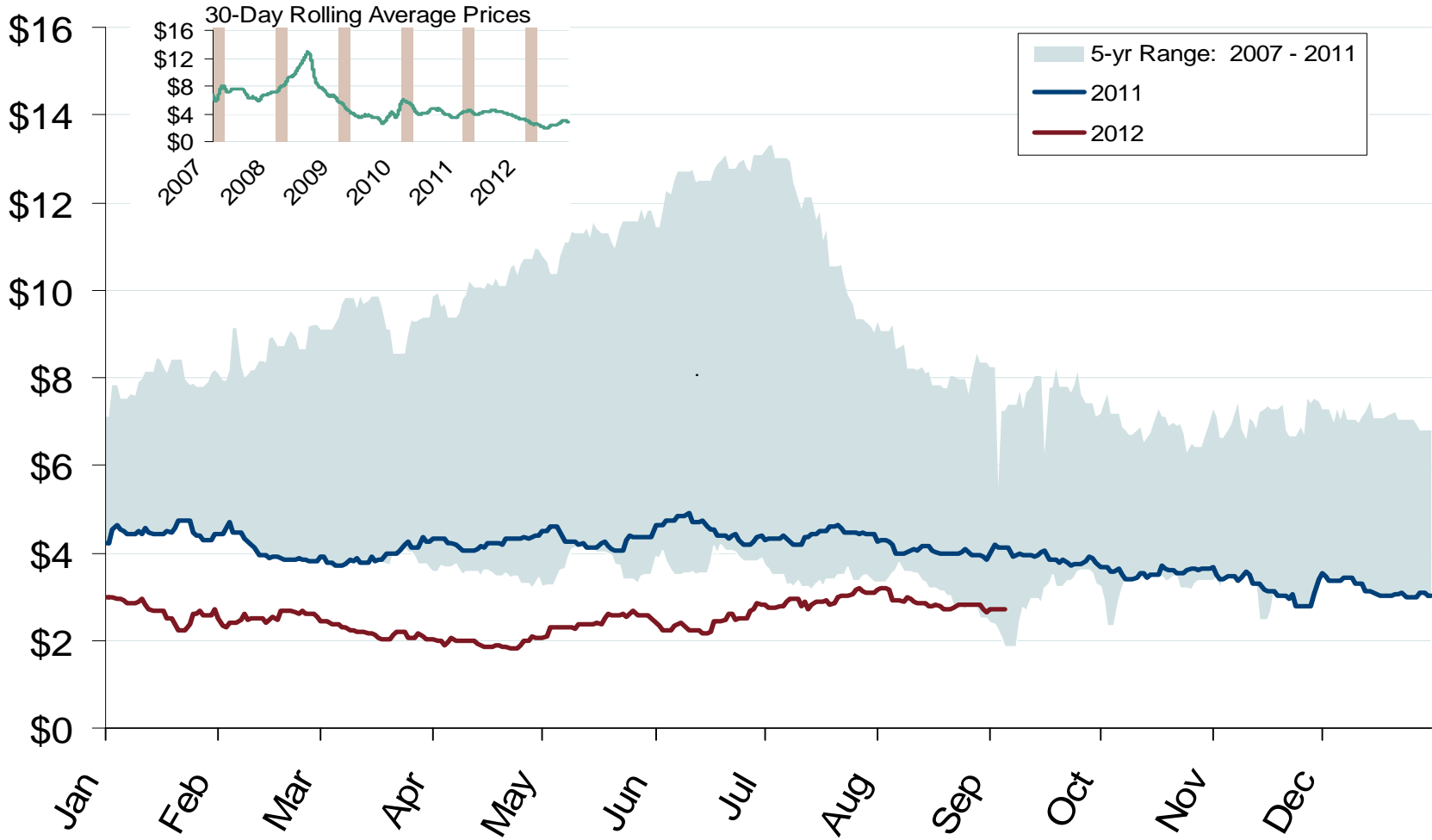


# Natural Gas and Fuels Markets

Natural Gas Market Overview: 5 Year Range of Henry Hub Spot Prices

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

# Henry Hub Natural Gas Daily Spot Prices



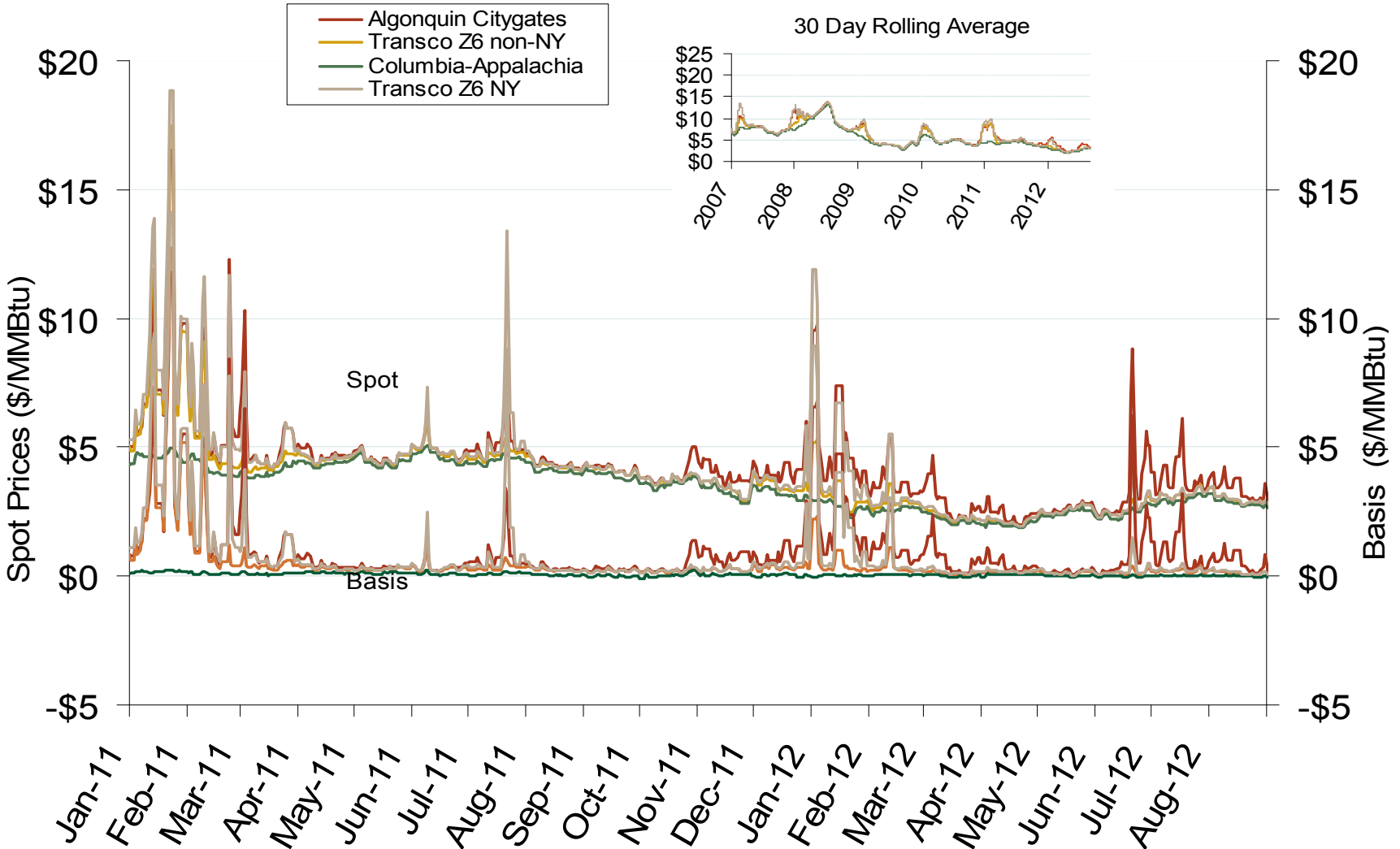
Source: Derived from *Platts* data  
September 2012 Northeast Snapshot Report

Updated: June 14, 2012

Northeast Natural Gas Market: Spot Prices and Basis

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

### Northeastern Spot Prices and Basis



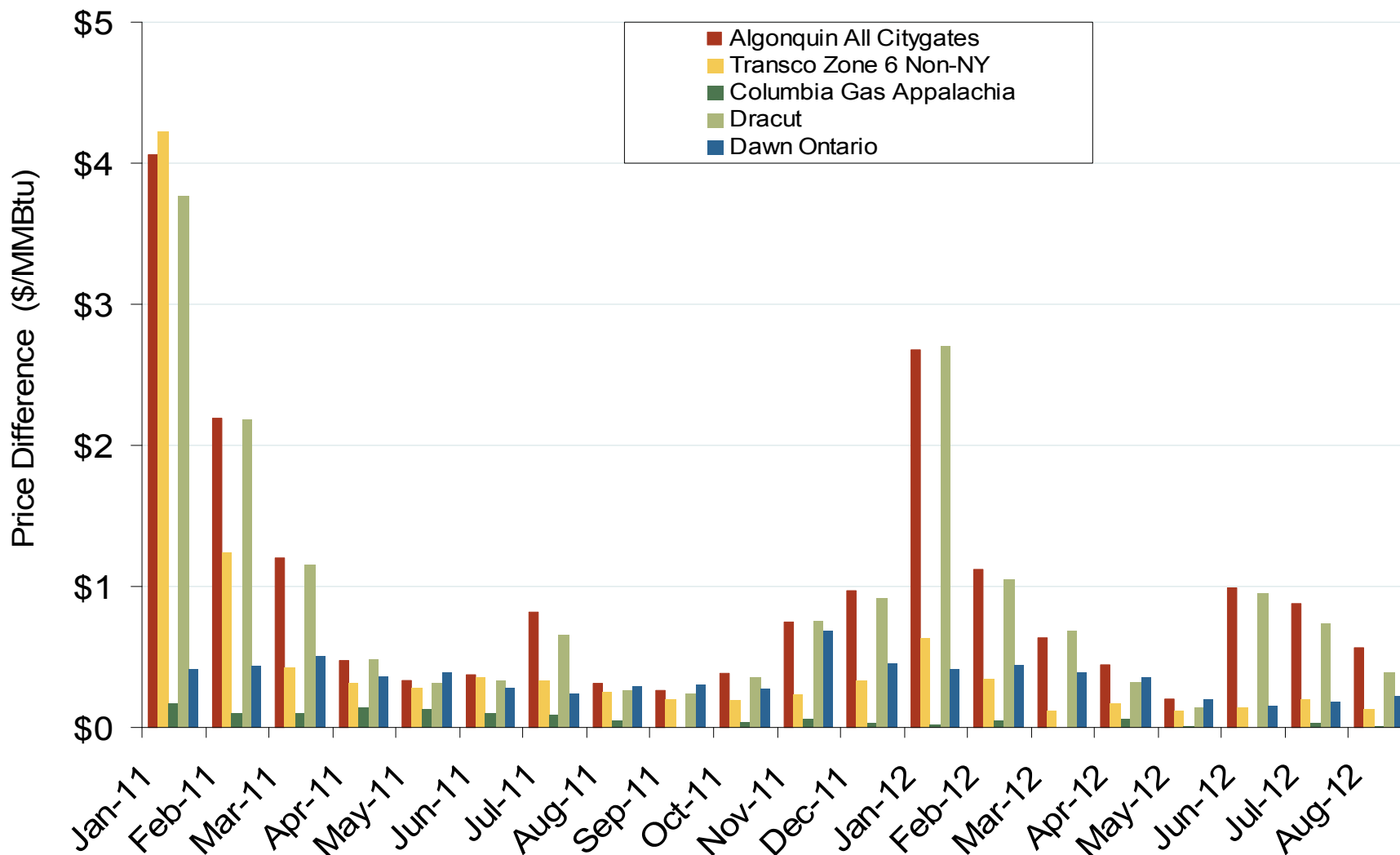
Source: Derived from *Platts* data  
September 2012 Northeast Snapshot Report



Northeast Natural Gas Market: Average Basis to Henry Hub

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

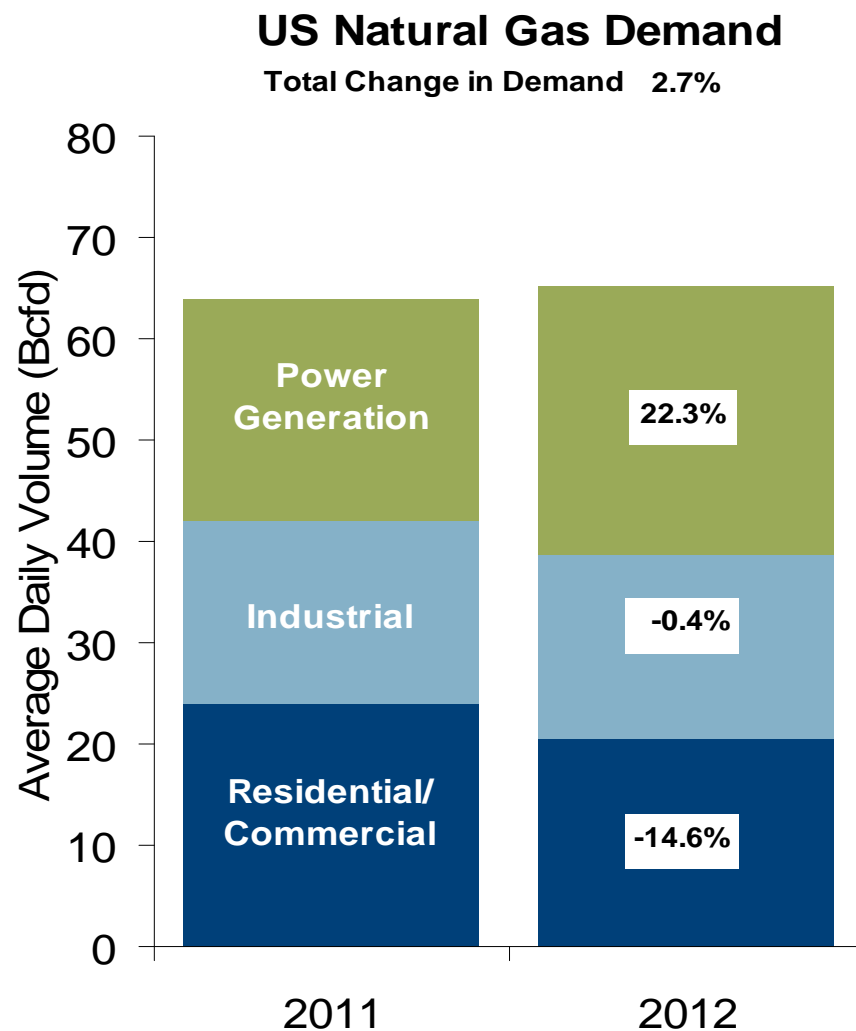
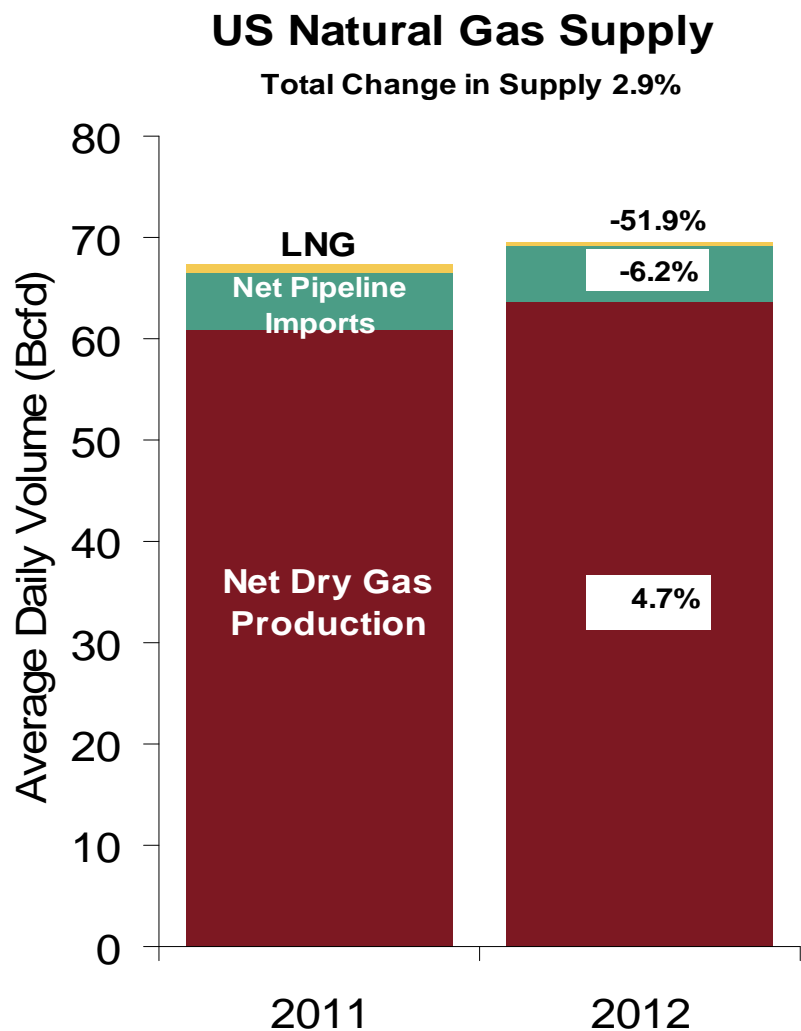
## Northeastern Monthly Average Basis Value to Henry Hub



Natural Gas Market Overview: U.S. Supply and Consumption

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

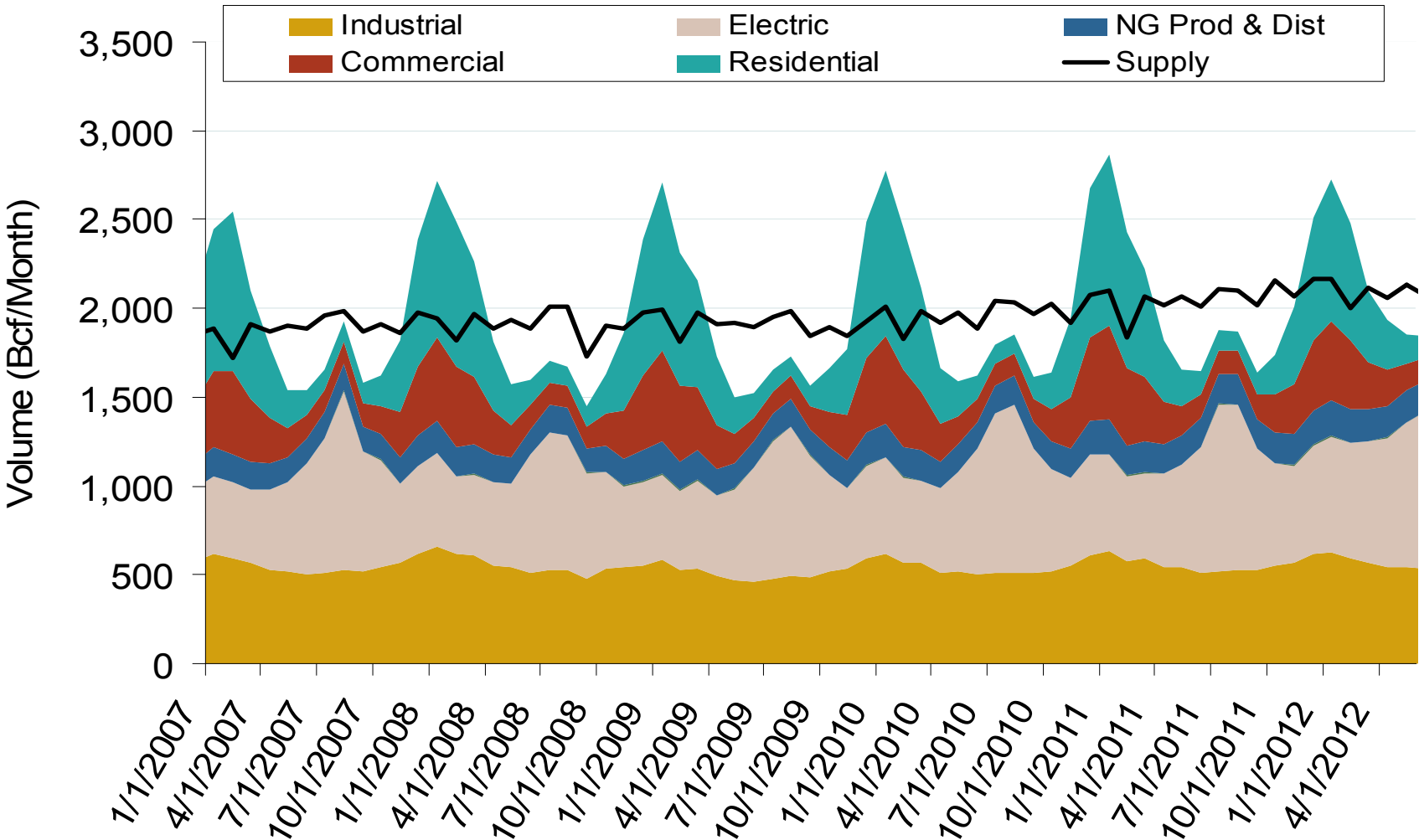
## U.S. NG Supply and Demand 2011 vs. 2012: January - August



Natural Gas market Overview: Consumption by Sector

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

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



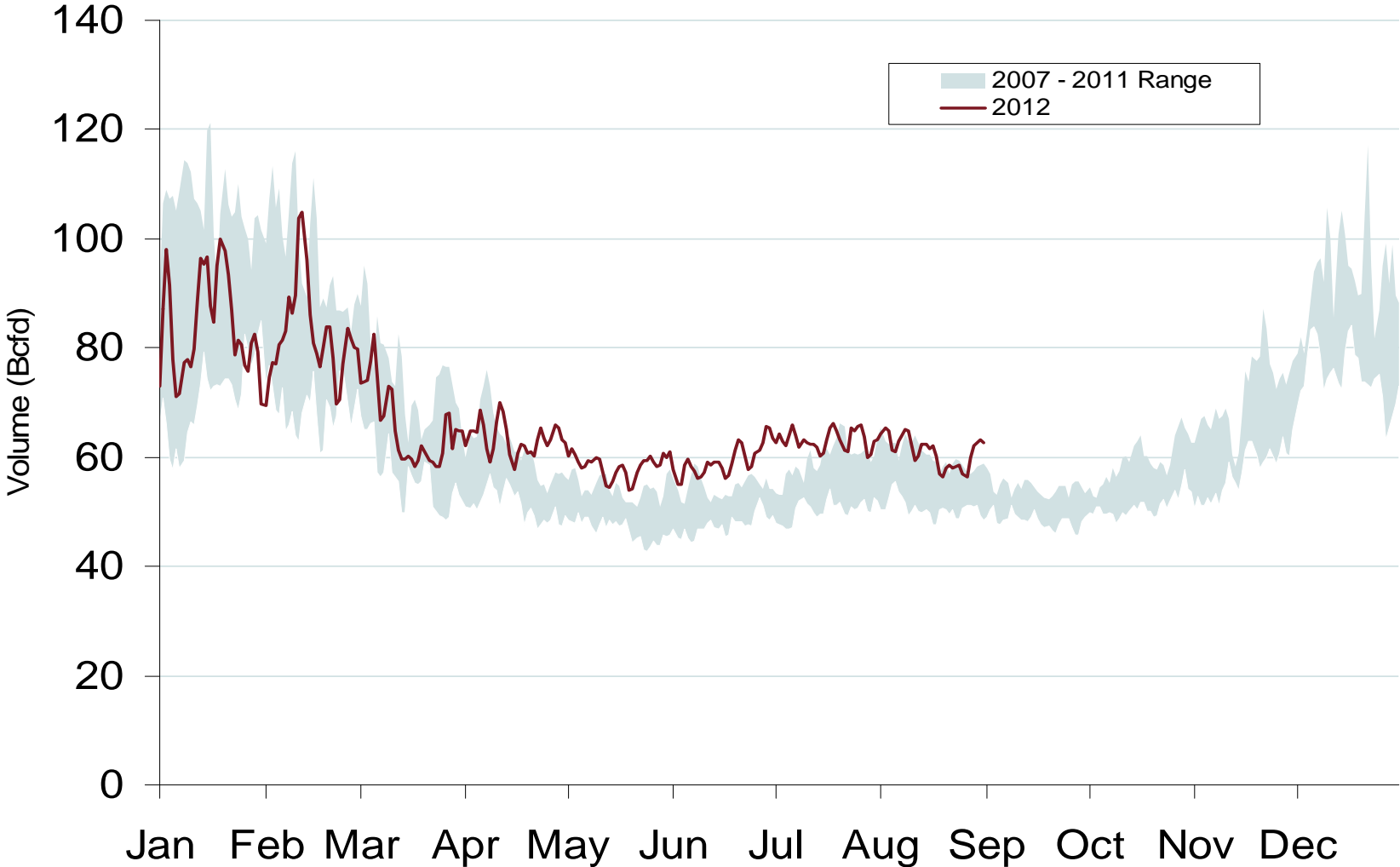
Notes: Supply includes lower 48 state production, net pipeline imports, and LNG imports

Source: Derived from EIA data

Natural Gas Market Overview: Total US Gas Demand

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

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



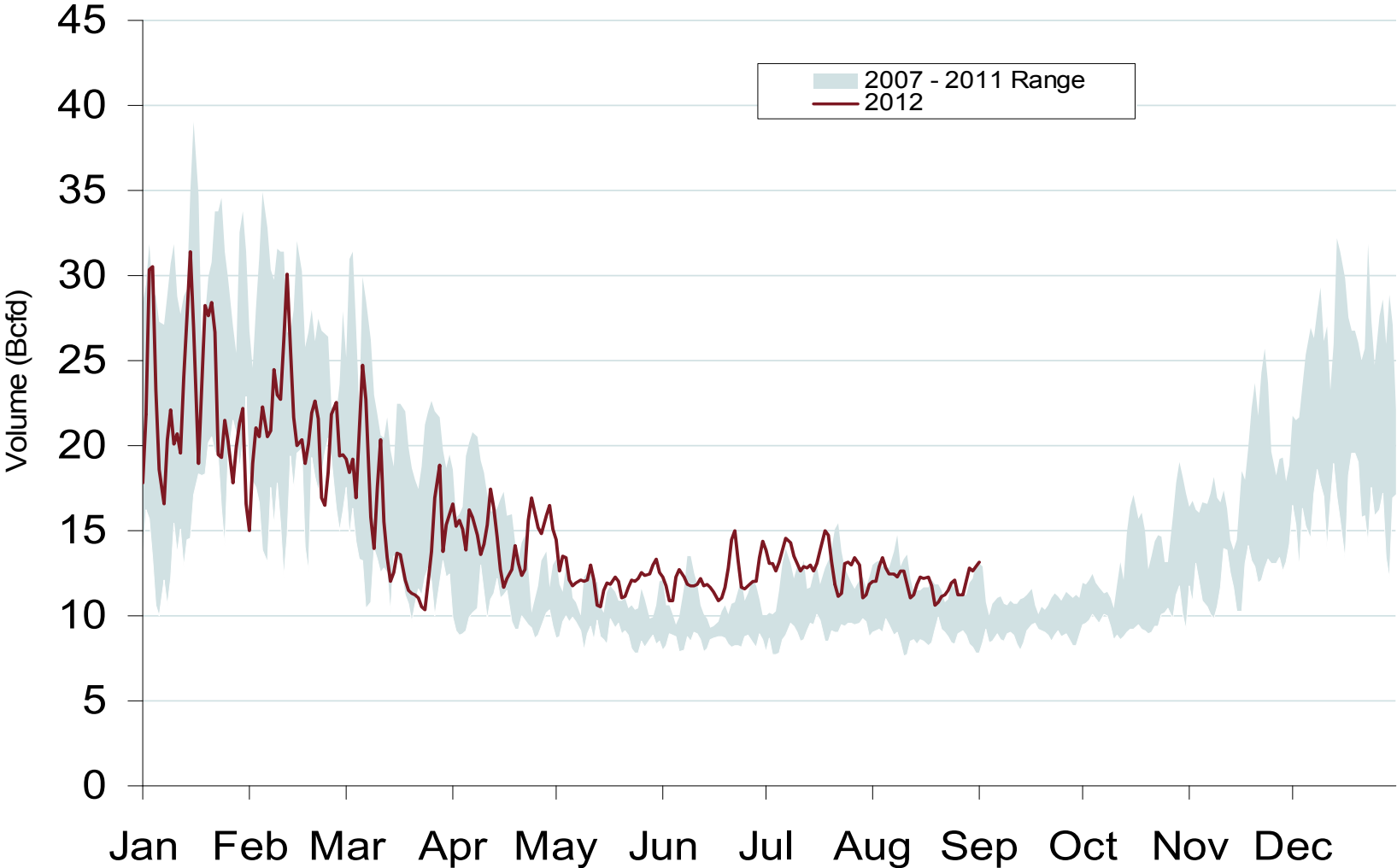
Source: Derived from *Bentek Energy* data  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012

Northeast Natural Gas Market: Daily Demand

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

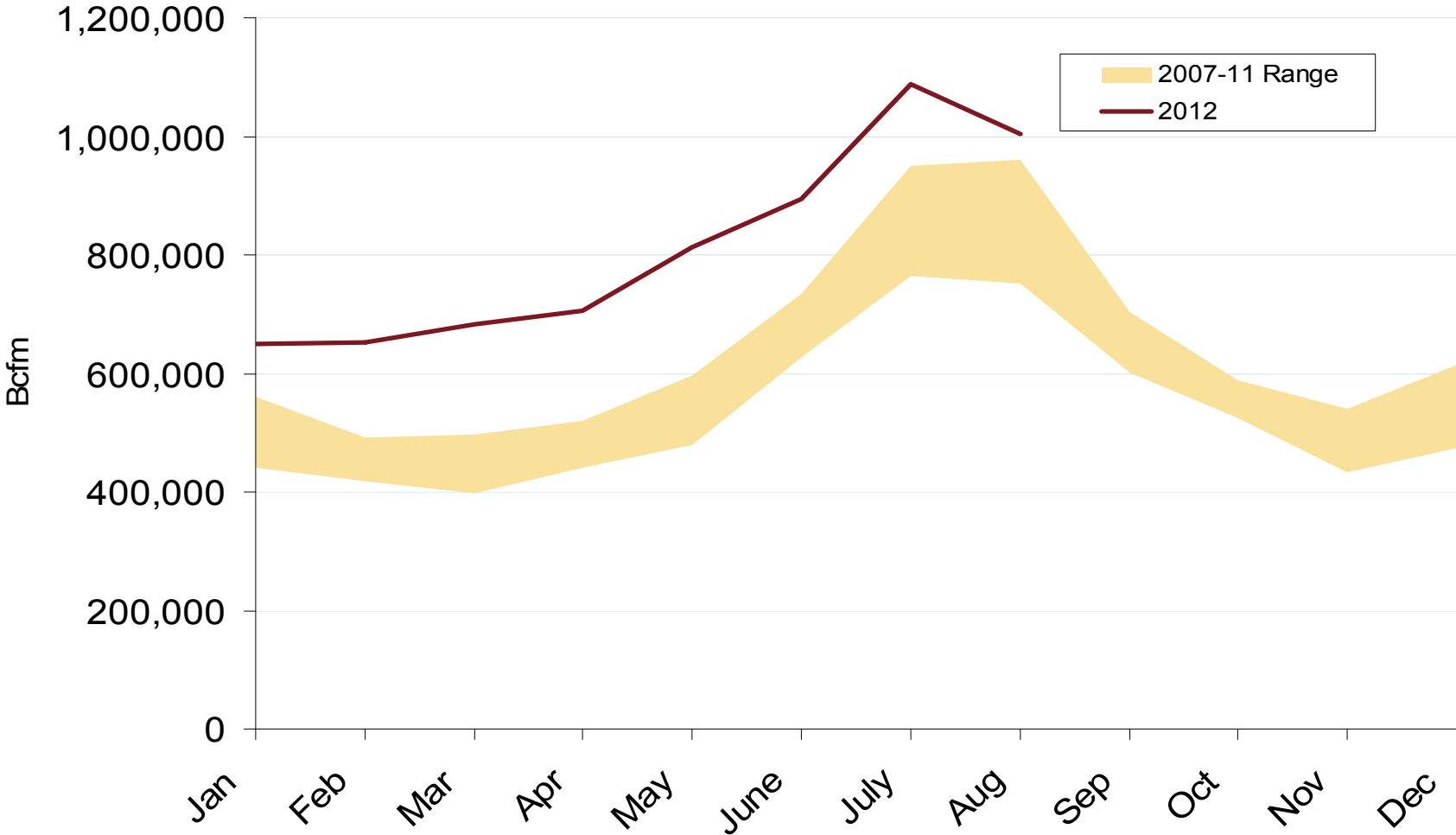
### Daily Northeast Natural Gas Demand All Sectors



Source: Derived from *Bentek Energy* and Weekly NOAA data  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012

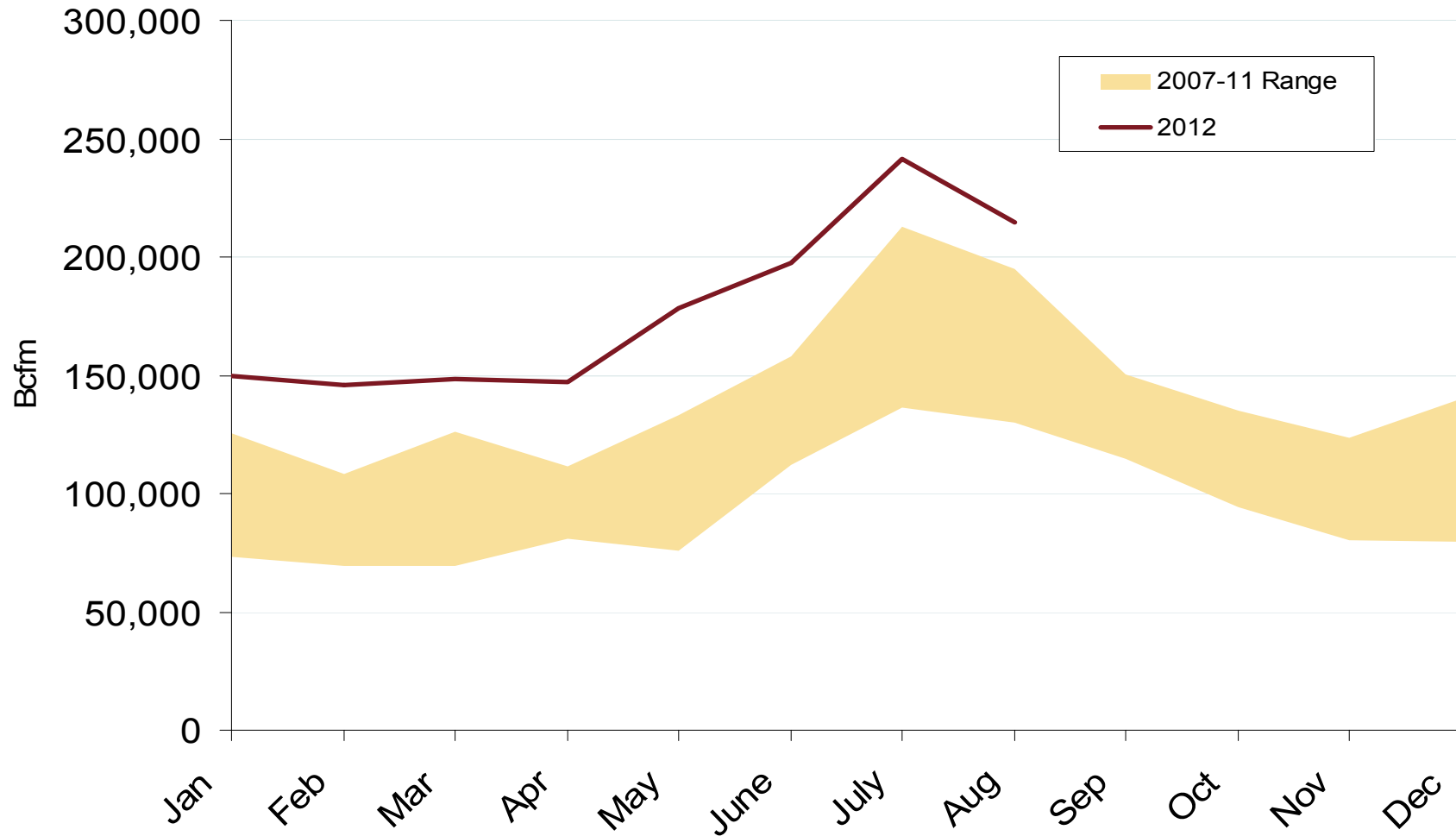
# U.S. Natural Gas Consumption for Power Generation



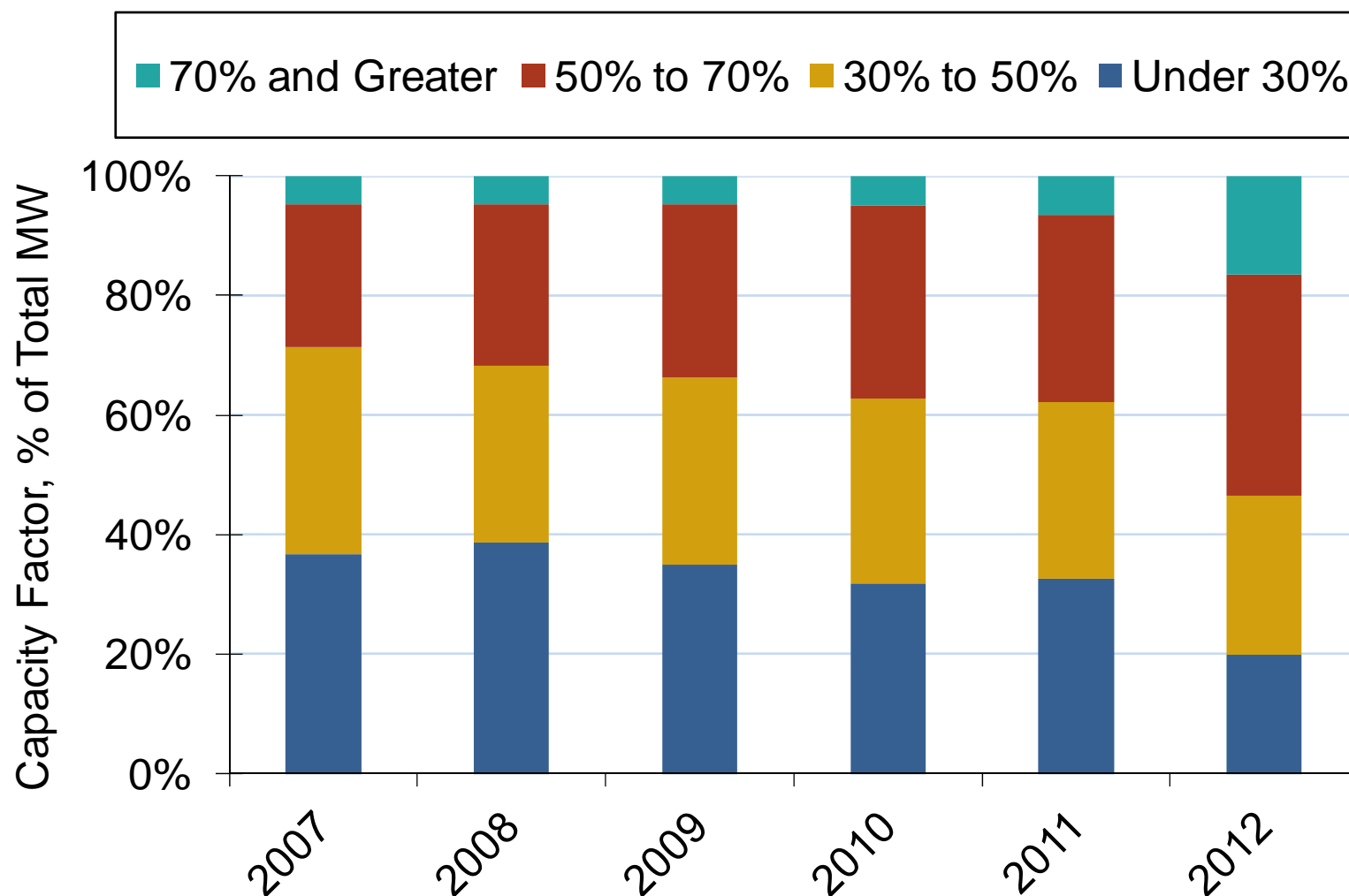
Source: Derived from *Bentek Energy* data  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012

## Northeast Natural Gas Market: NG Consumption for Power Generation

Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**Northeast Natural Gas Consumption for Power Generation**

## Major Shifts in U.S. CCGT Units Capacity Factors in 2012



Note: CCGT-Combined Cycle Gas Turbines. The capacity factor of a plant as the annual number of MWh generated divided by the plants annual operating capability which is maximum load at which a generator can operate without exceeding approved plant stress limits.

Source: Derived from SNL Data

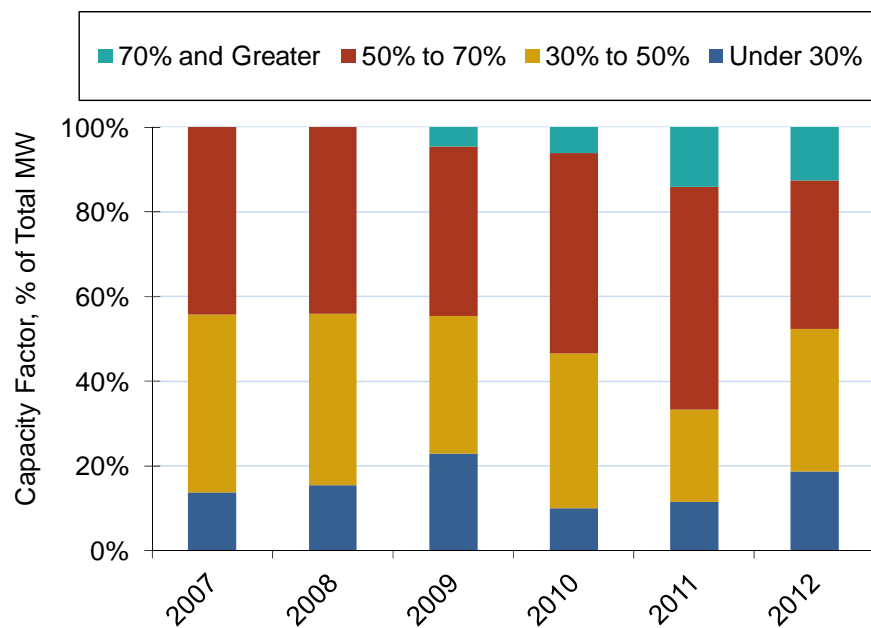
Updated May, 2011

2122

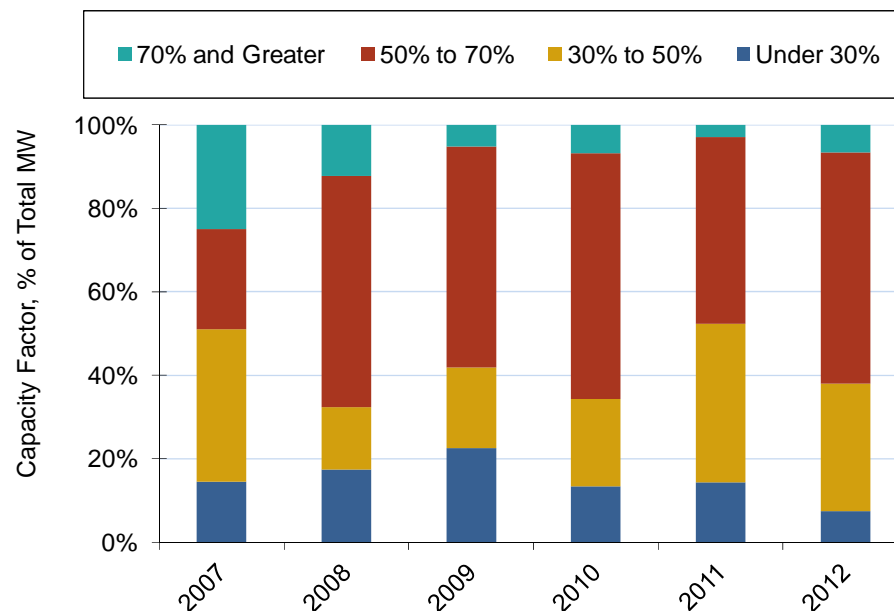


## Little Change in New England and New York CCGT Use

NEISO CCGT Use



NYISO CCGT Use



Note: CCGT-Combined Cycle Gas Turbines. The capacity factor of a plant as the annual number of MWh generated divided by the plants annual operating capability which is maximum load at which a generator can operate without exceeding approved plant stress limits.

Source: Derived from SNL Data

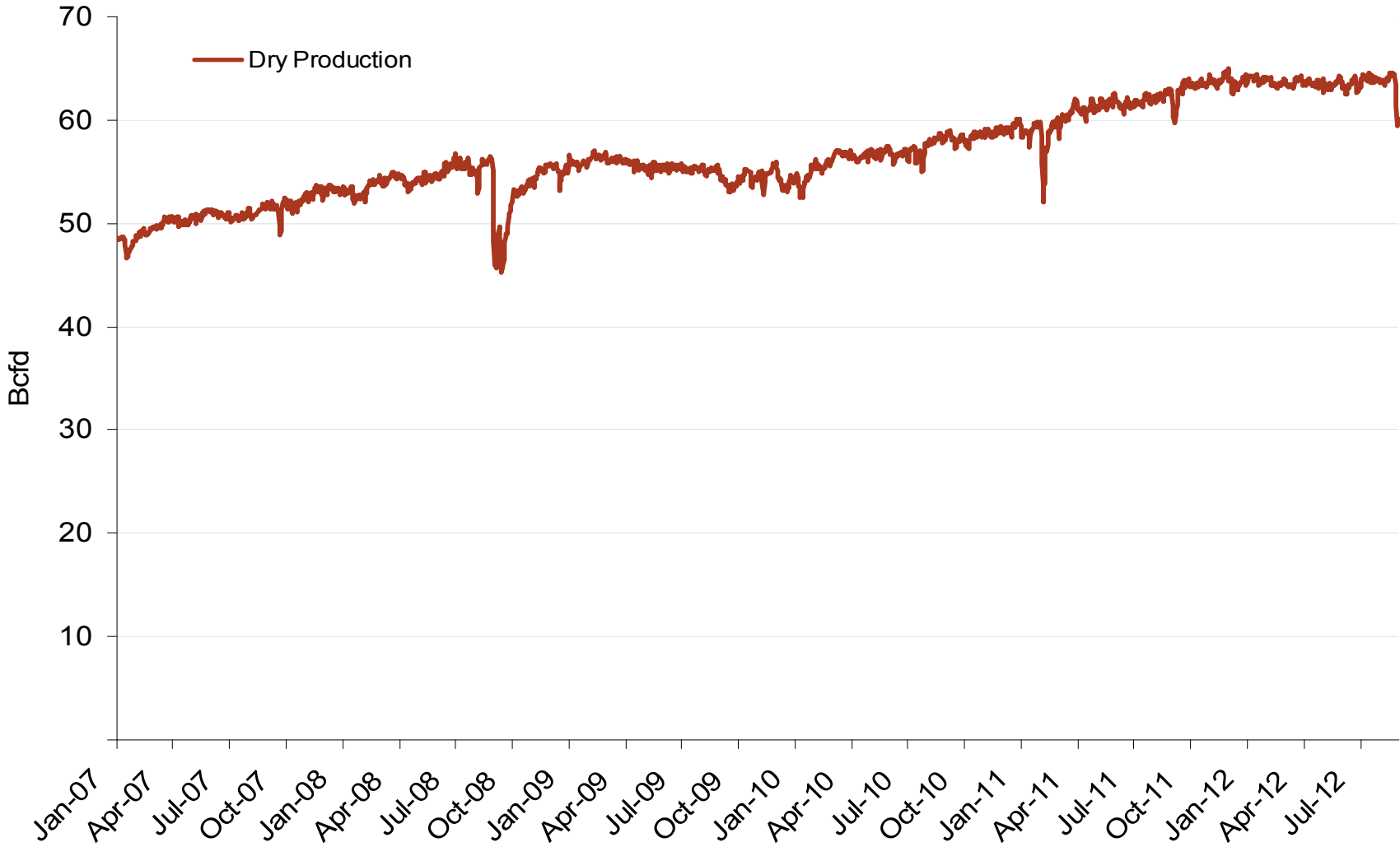
Updated May, 2011

2122

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

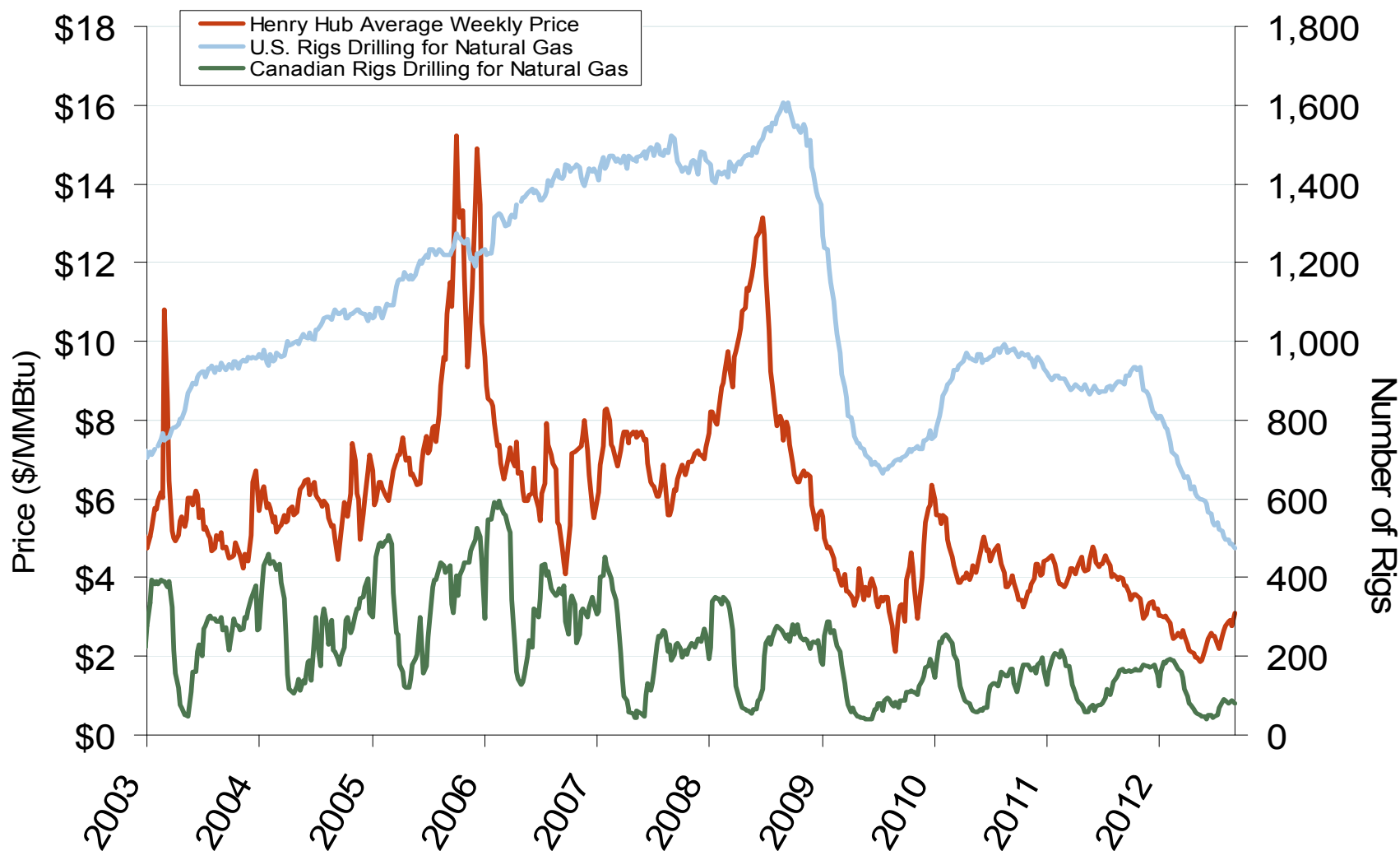


Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek Energy data  
Source: Derived from Bentek Energy data  
September 2012 Northeast Snapshot Report

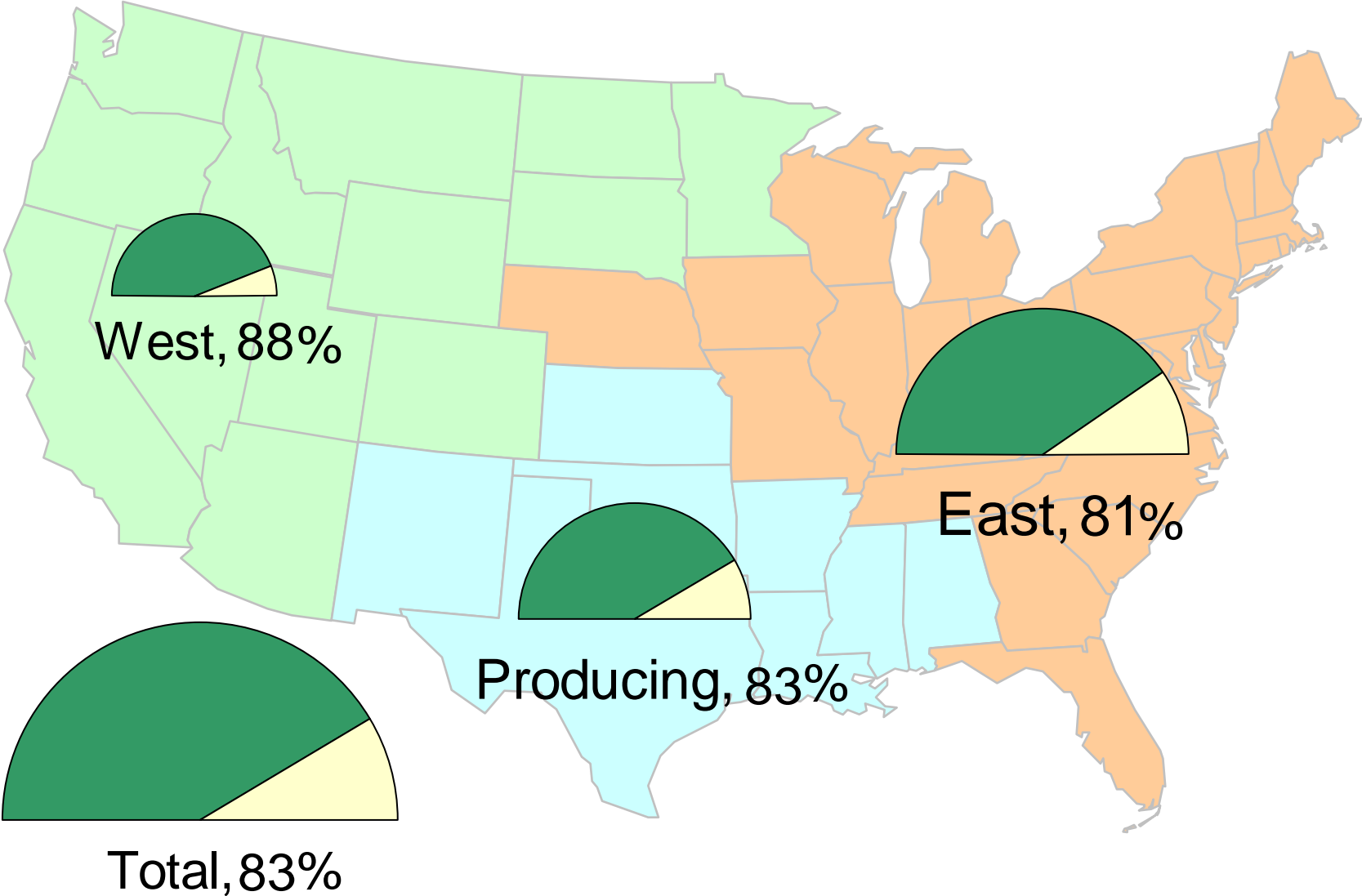
Natural Gas Market Overview: Drilling Rig Count

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

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



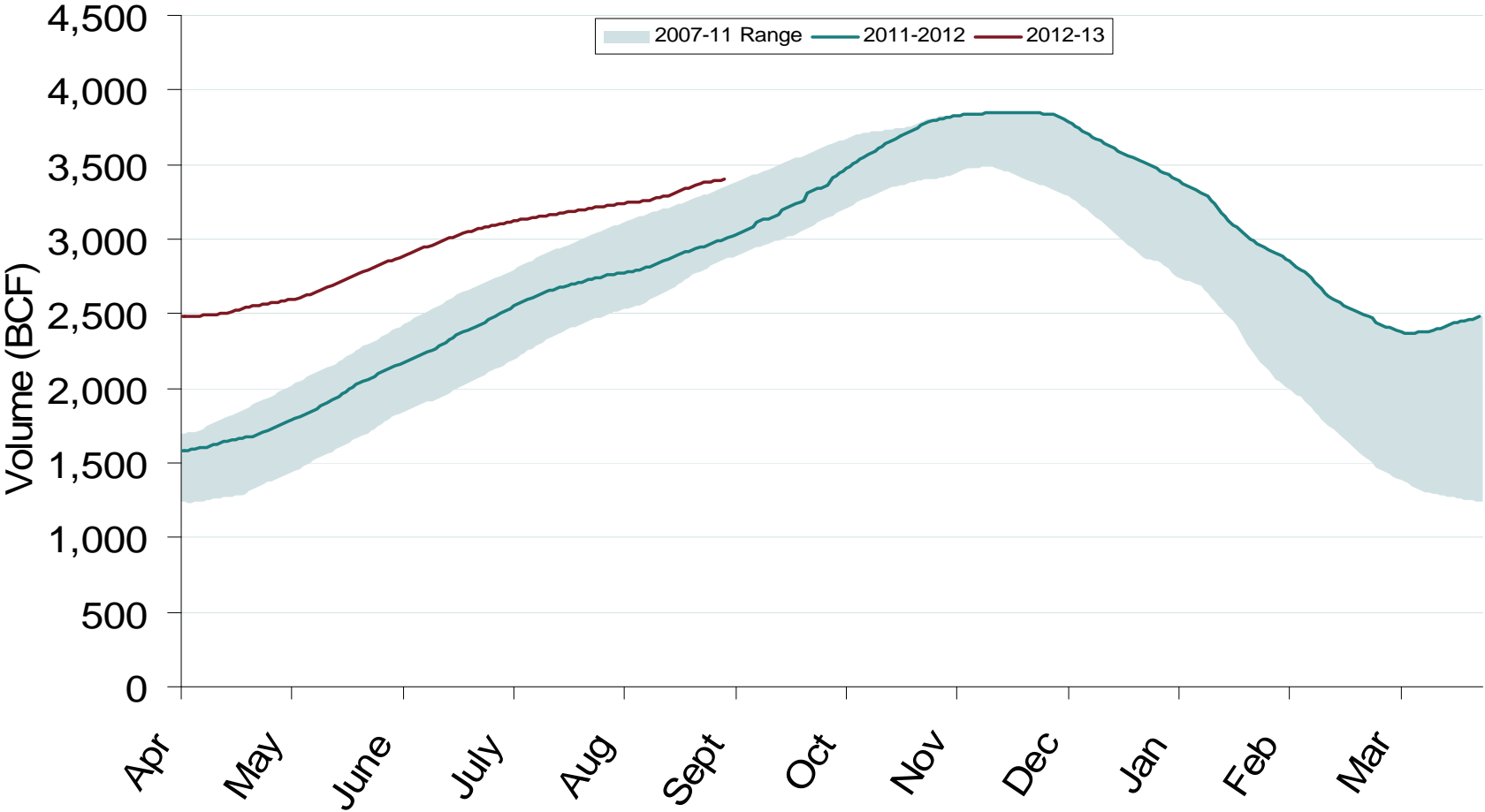
# Natural Gas Storage Inventories – August 31, 2012



Source: Derived from EIA Storage and Estimated Working Gas Capacity data  
September 2012 Northeast Snapshot Report

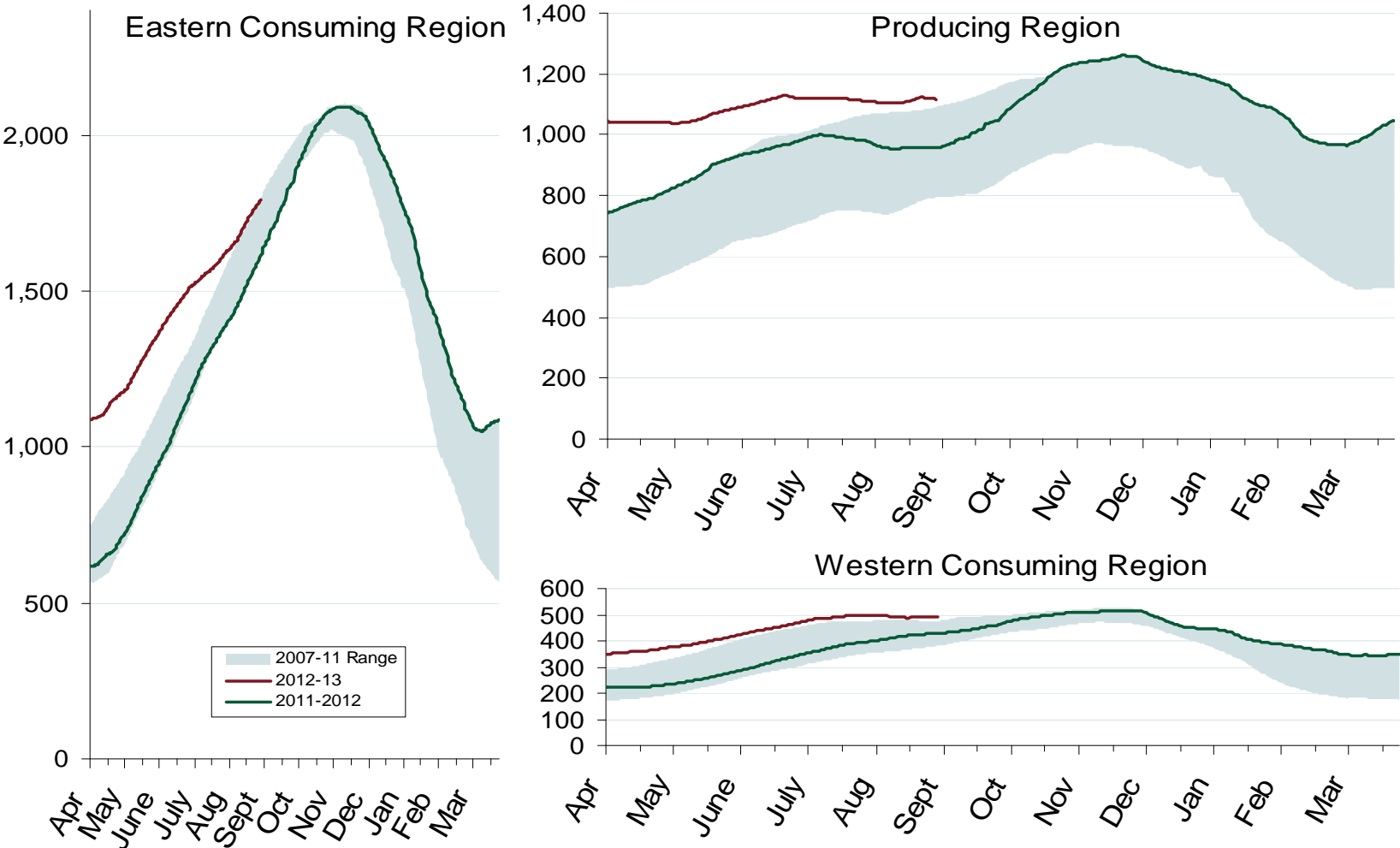
Updated: September 6, 2012<sup>022</sup>

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



Source: Derived from EIA data  
September 2012 Northeast Snapshot Report

# Regional Totals of Working Gas in Storage

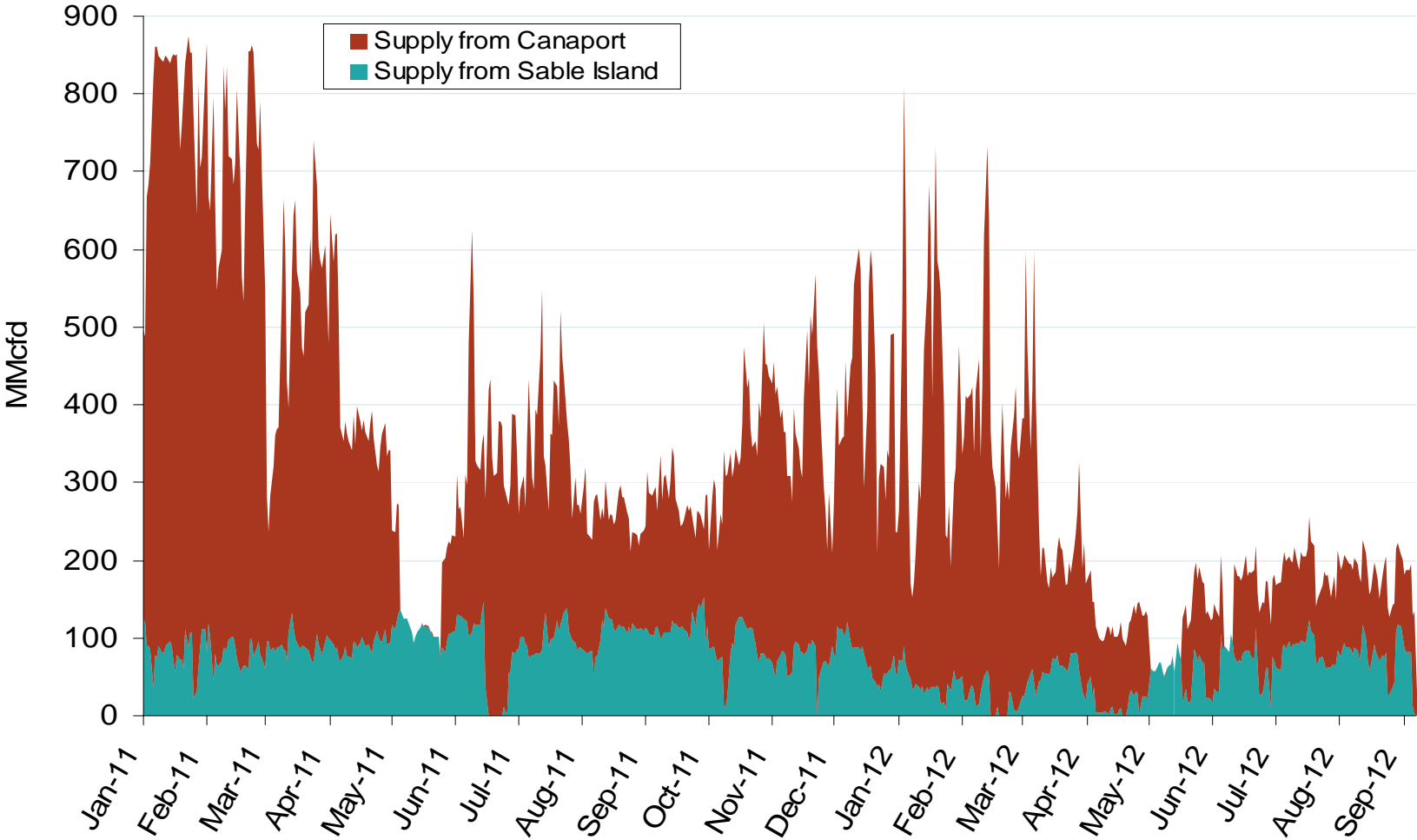


Source: Derived from EIA data  
September 2012 Northeast Snapshot Report

Northeast Natural Gas Market: Maritimes Pipeline Flows

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

# Maritimes Pipeline Flows



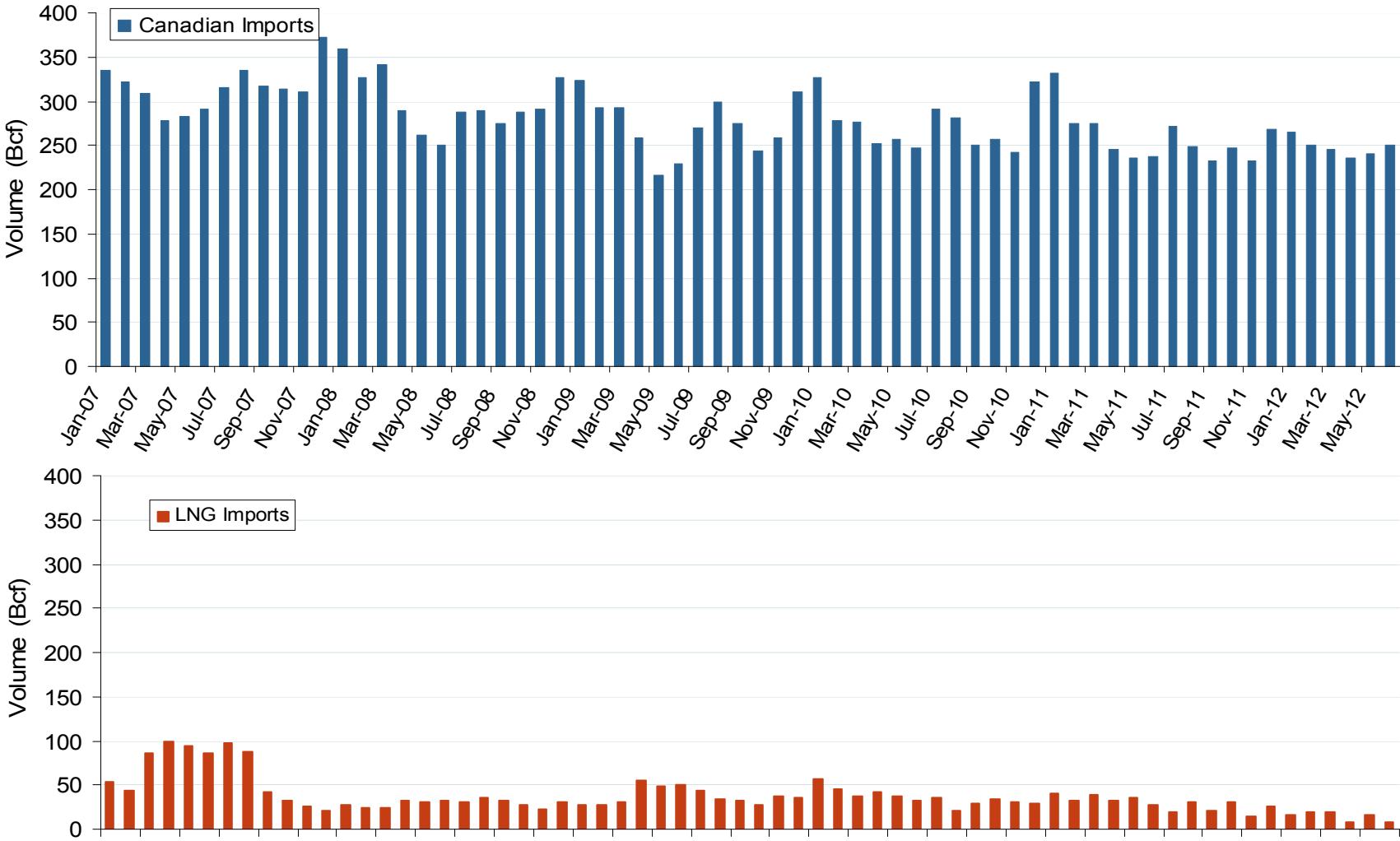
Source: Derived from *Bentek Energy* data  
September 2012 Northeast Snapshot Report

Updated: September 10, 2012

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  
September 2012 Northeast Snapshot Report

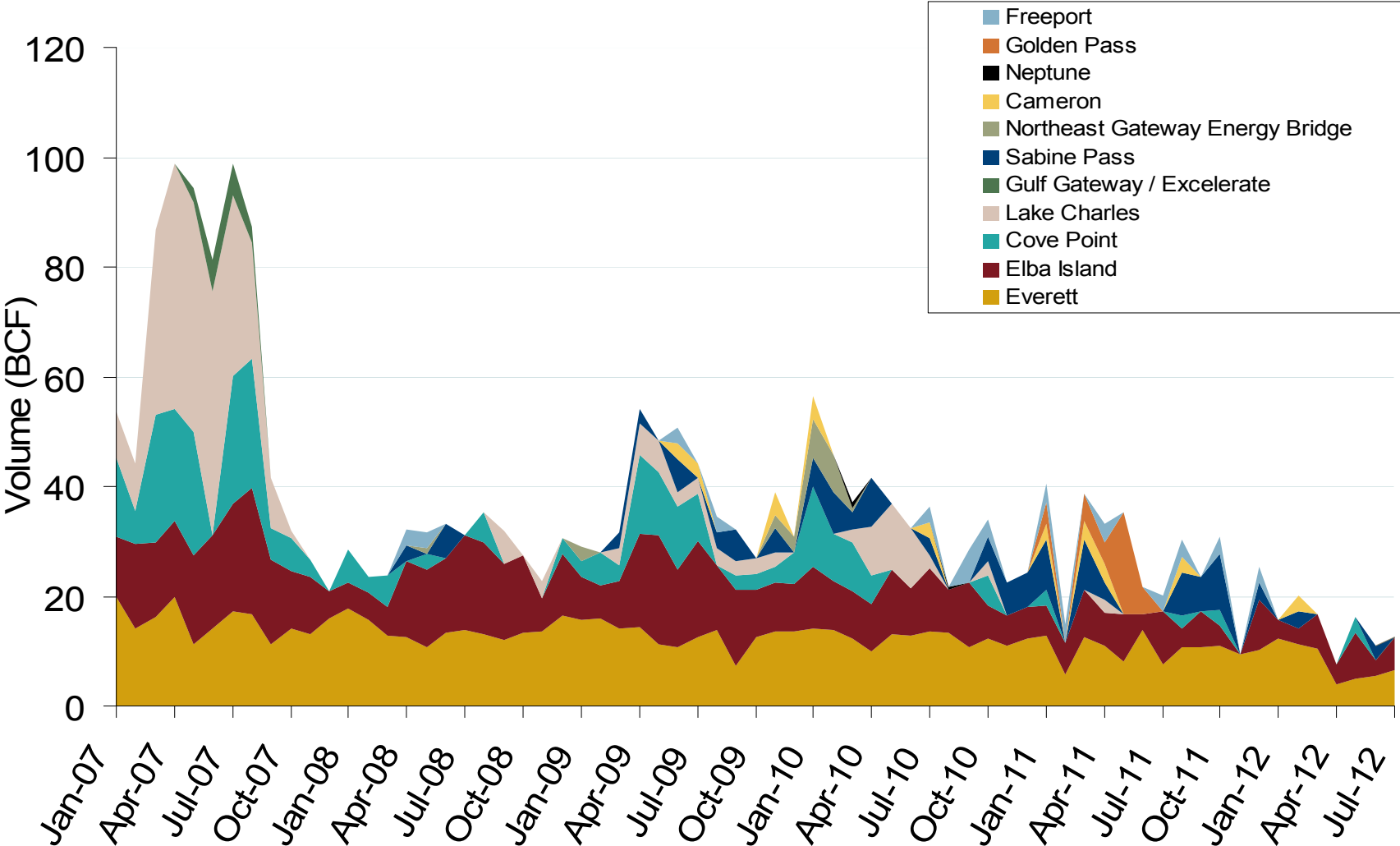
Updated: September 06, 2012



## Natural Gas Overview: World LNG Prices

Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**World LNG Estimated October 2012 Landed Prices**

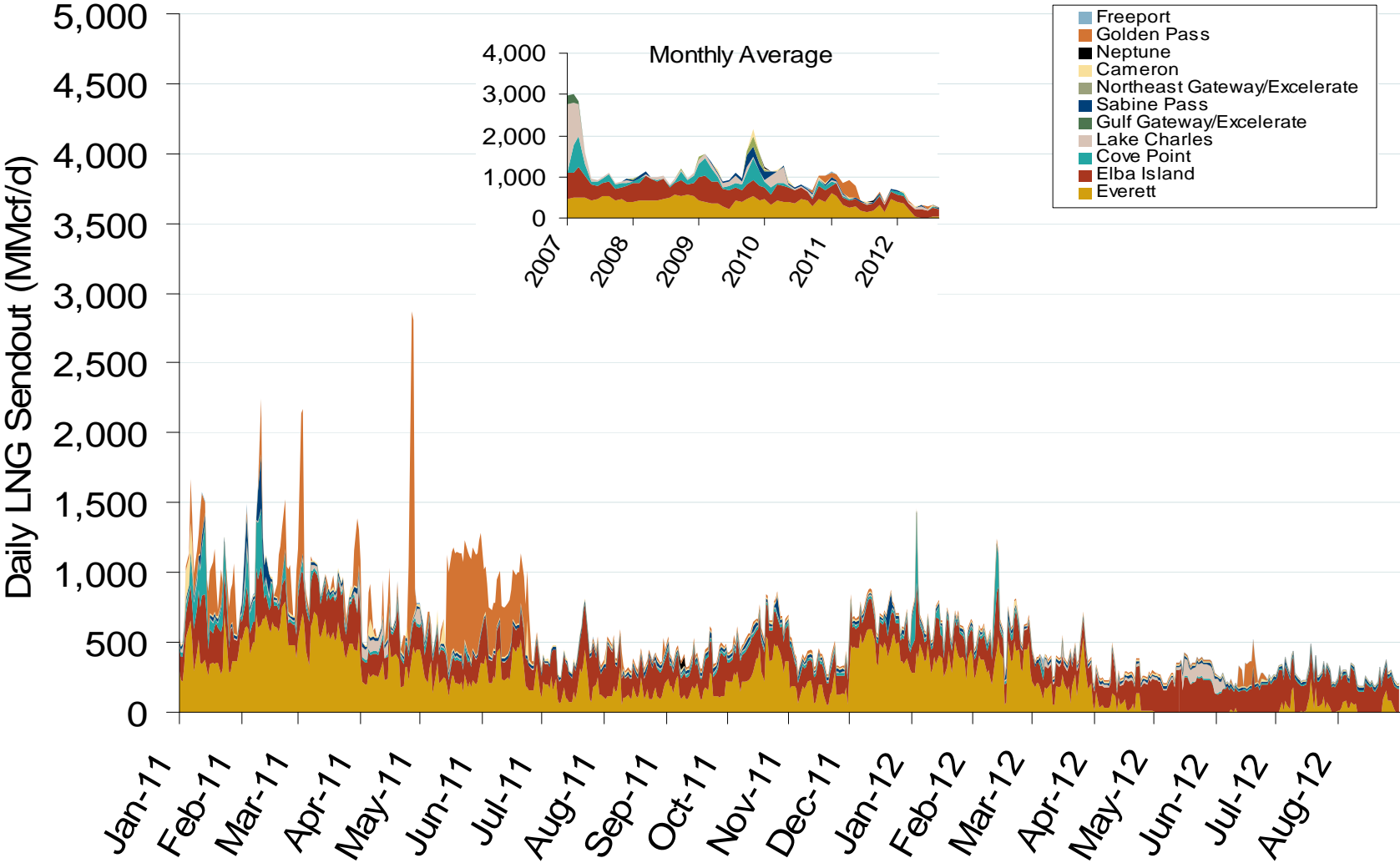
### Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012

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

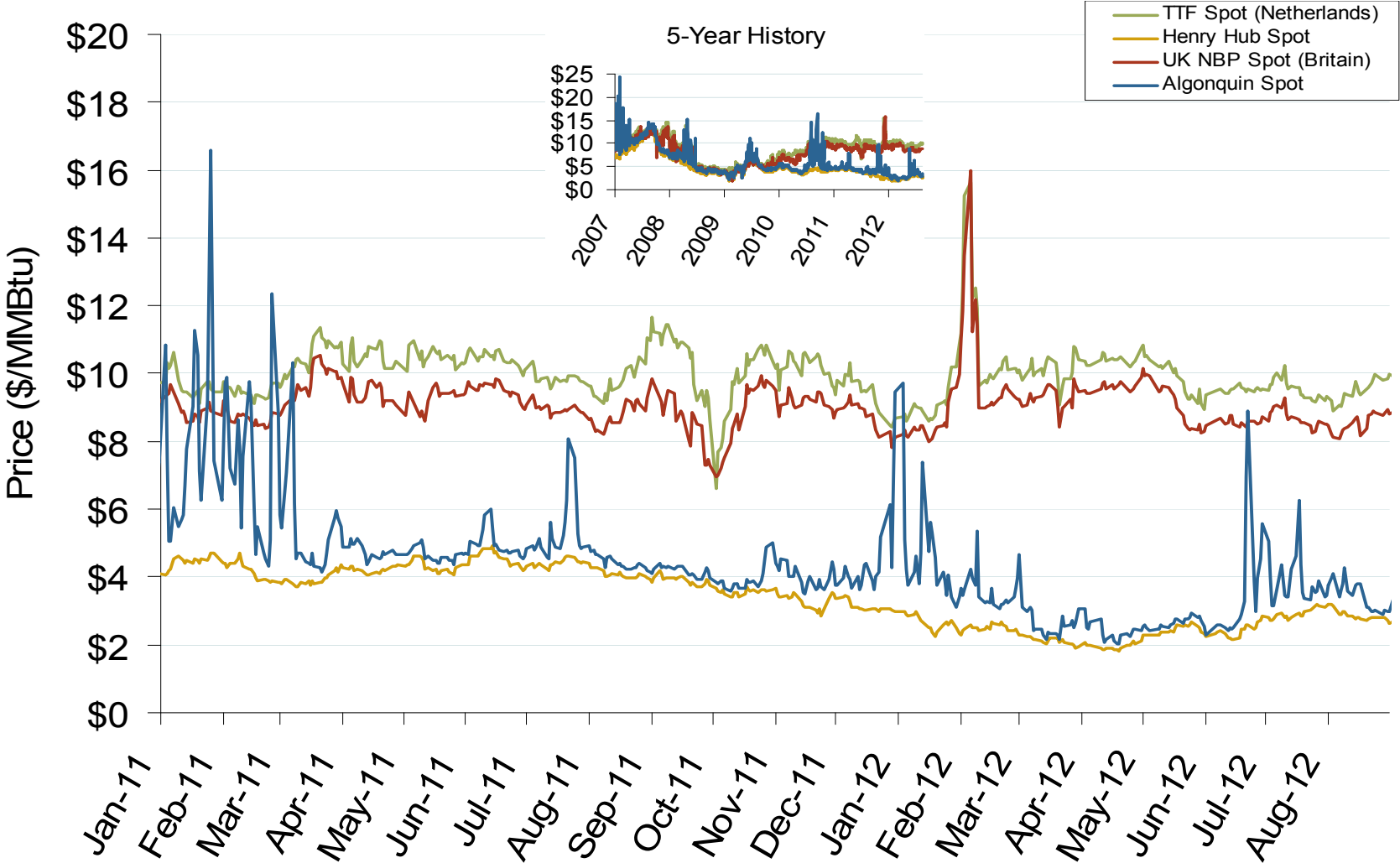


Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan BostonGas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from *Bentek Energy* data  
September 2012 Northeast Snapshot Report

Updated: September 07, 2012 3007

# Atlantic Basin European and US Spot Natural Gas Prices



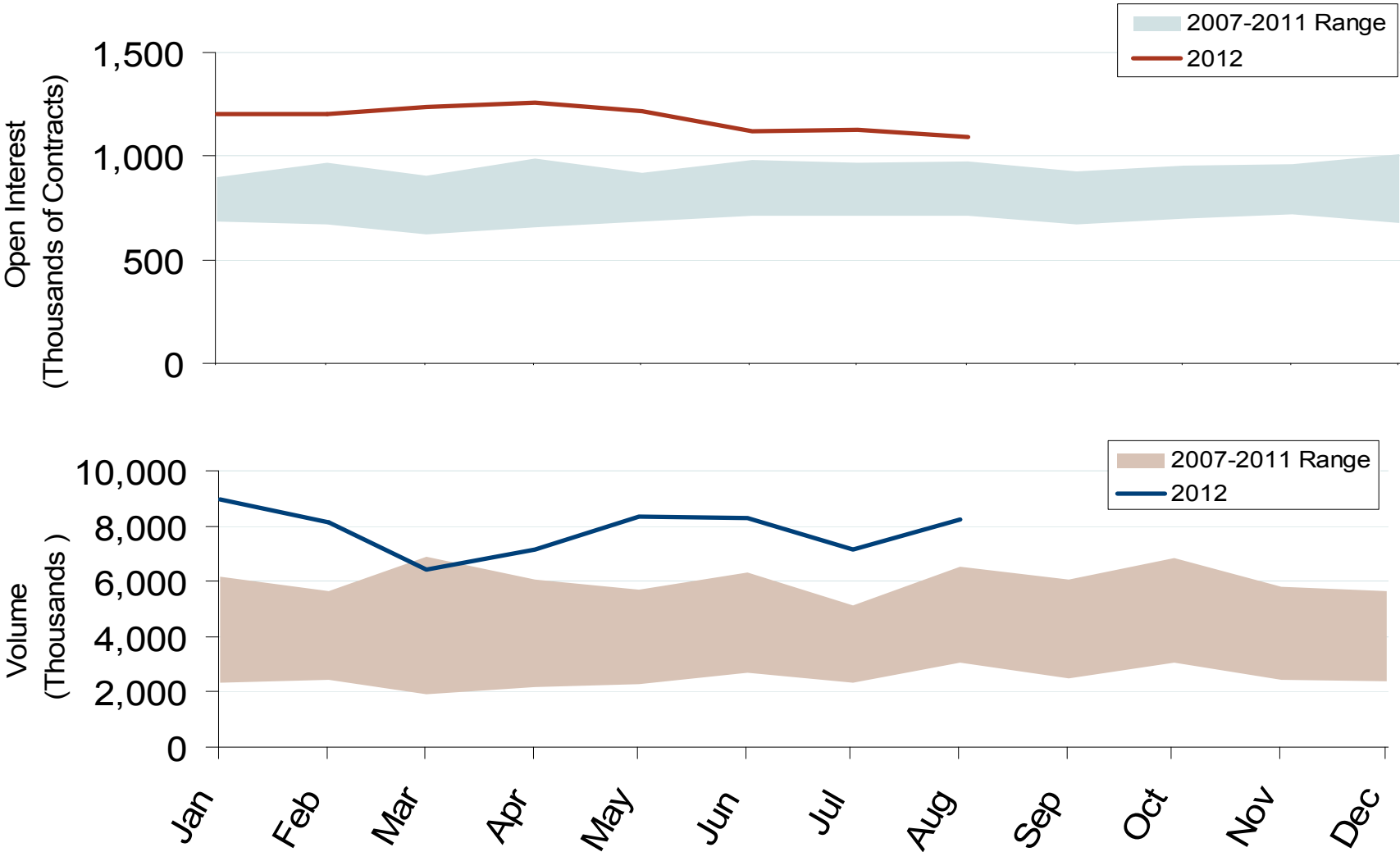
Source: Derived from Bloomberg and ICE data  
September 2012 Northeast Snapshot Report

Updated: September 04, 2012

Natural Gas Trading: Futures Open Interest and Volume

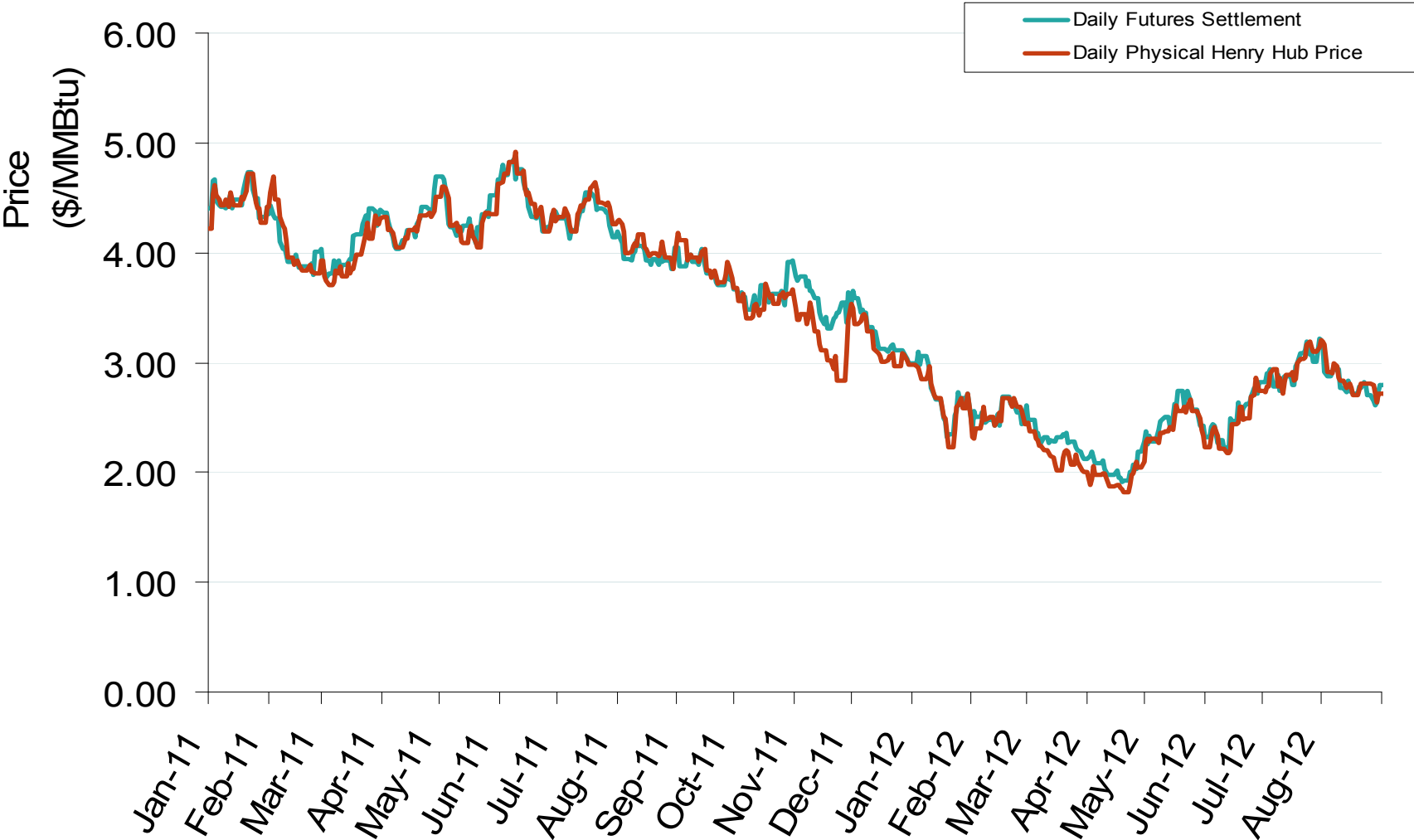
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

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



Source: Derived from Nymex data  
September 2012 Northeast Snapshot Report

# Daily Physical Index Price & Daily Futures Settlement Price



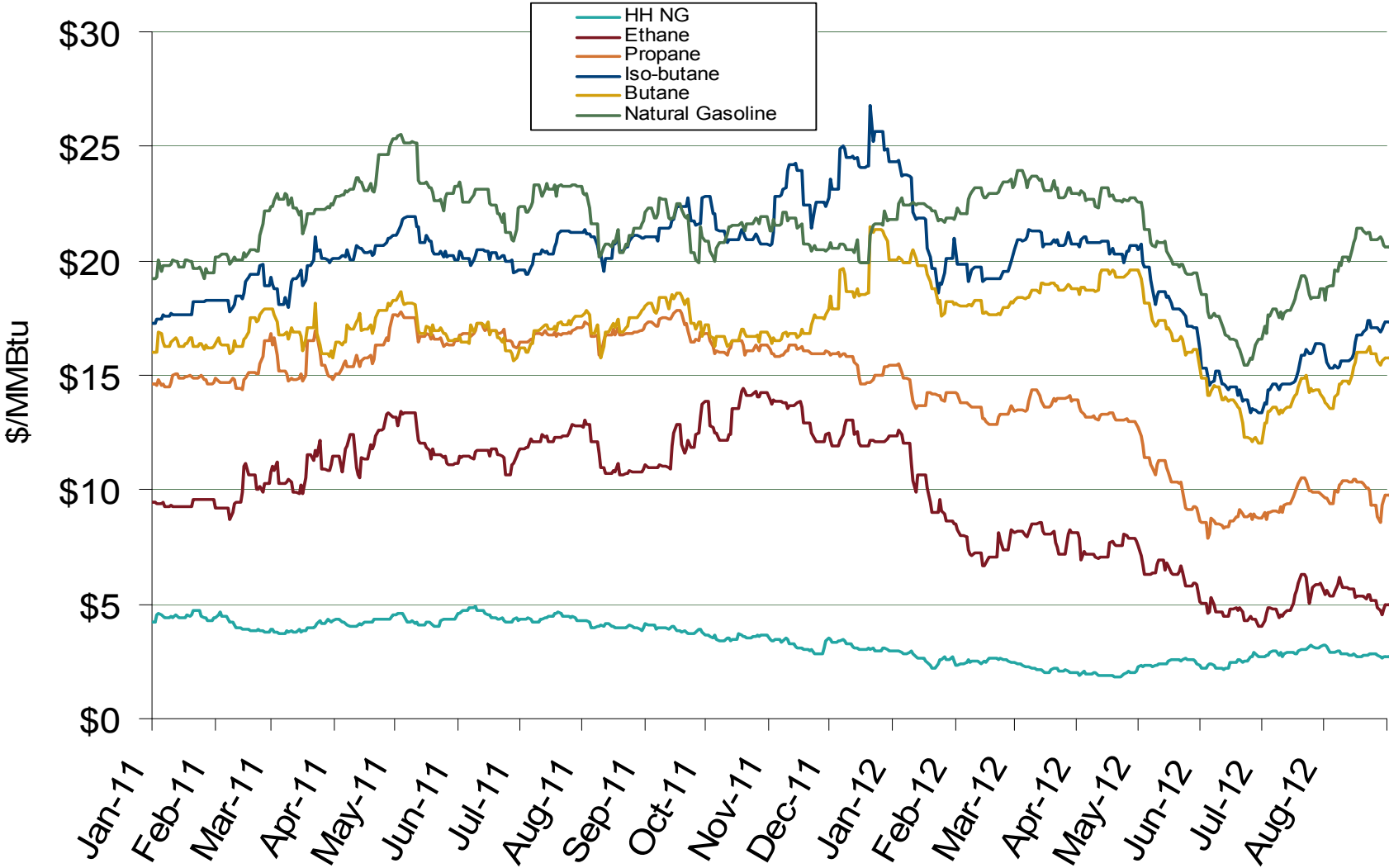
Source: Derived from Bloomberg data  
September 2012 Northeast Snapshot Report

Updated: September 04, 2012

Natural Gas Market Overview: NGL Prices

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

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



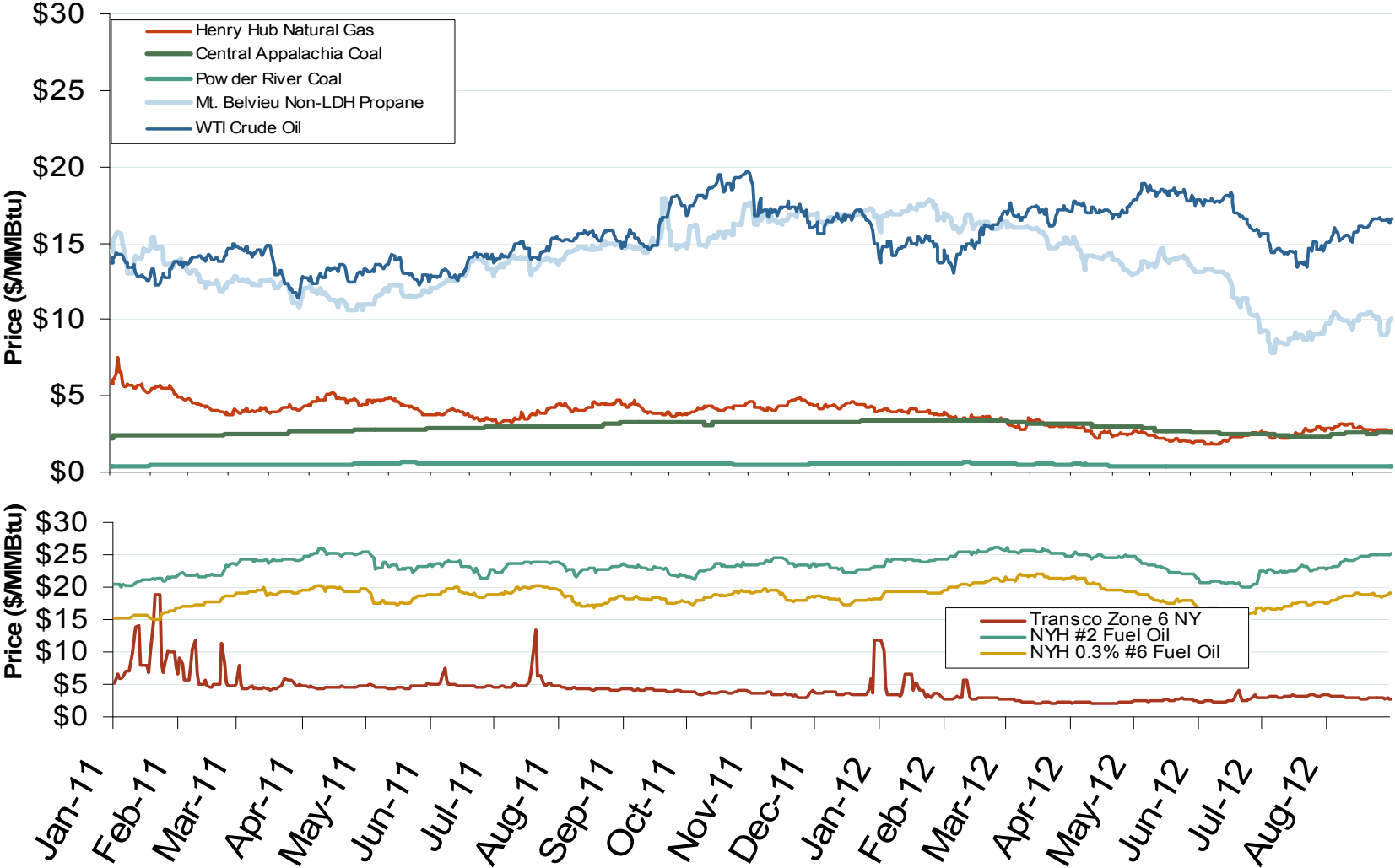
Source: Derived from Bloomberg Data  
September 2012 Northeast Snapshot Report

Updated: September 04, 2012

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

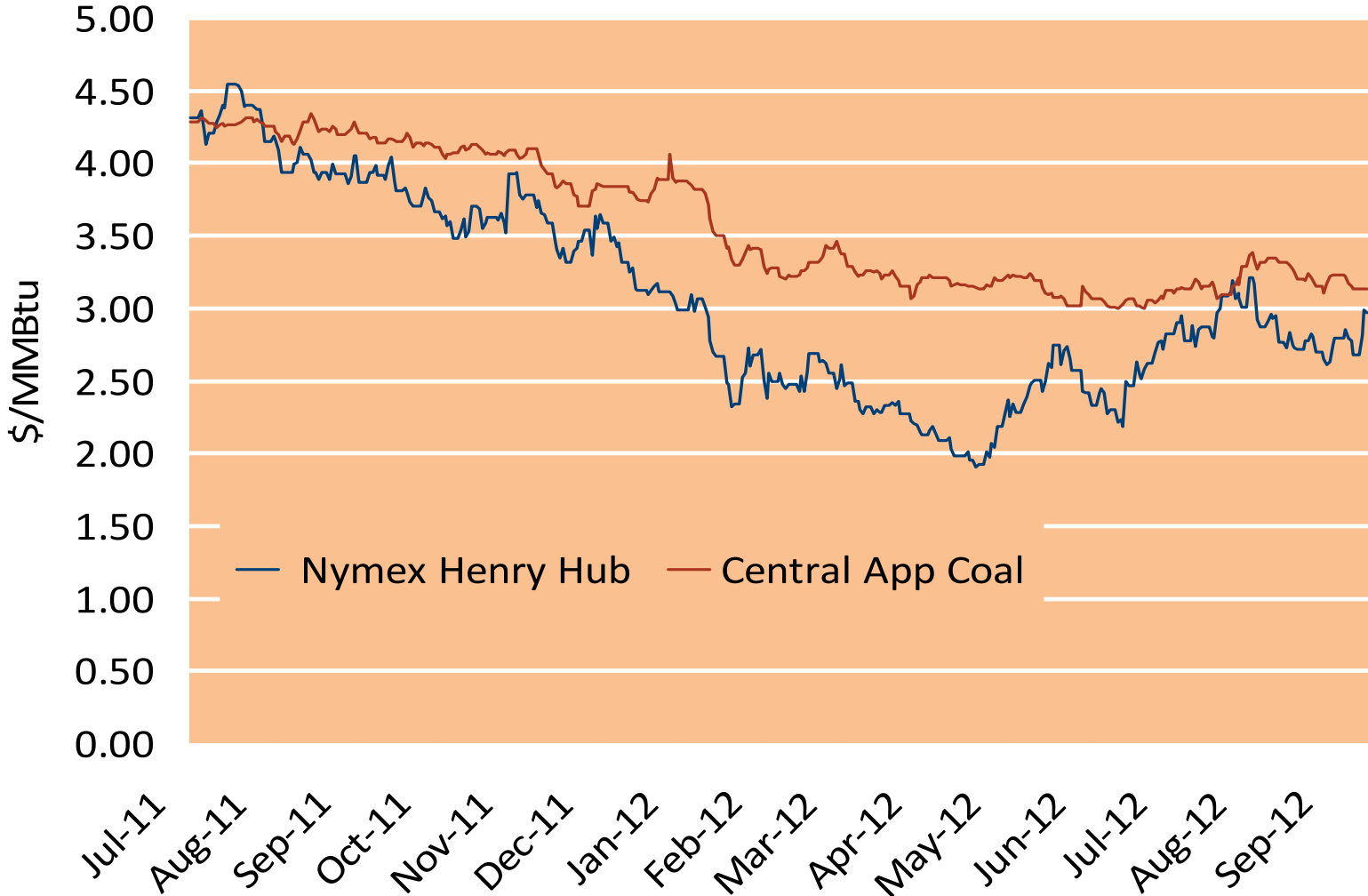


Notes: Coal prices are quoted in \$/ton. Conversion factors to \$/MMBtu are based on contract specifications of 12,000 btus/pound for Central Appalachian coal and 8800 btus/pound for Powder River Basin coal

Source: Derived from ICE and Bloomberg data



# Gas Prices Reach Parity with Coal

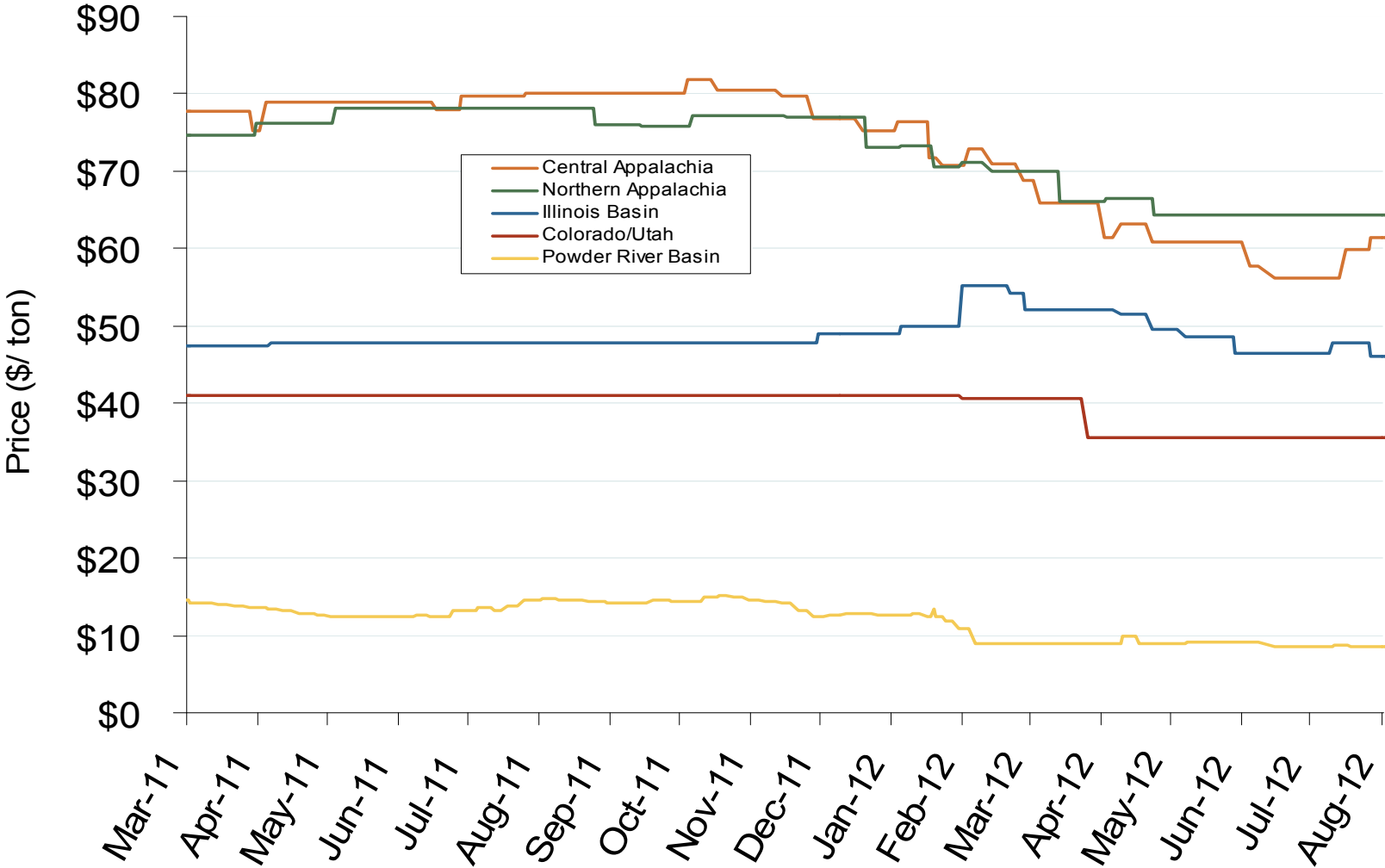


Source: Bloomberg

National Electric Market Overview: Coal Prices

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

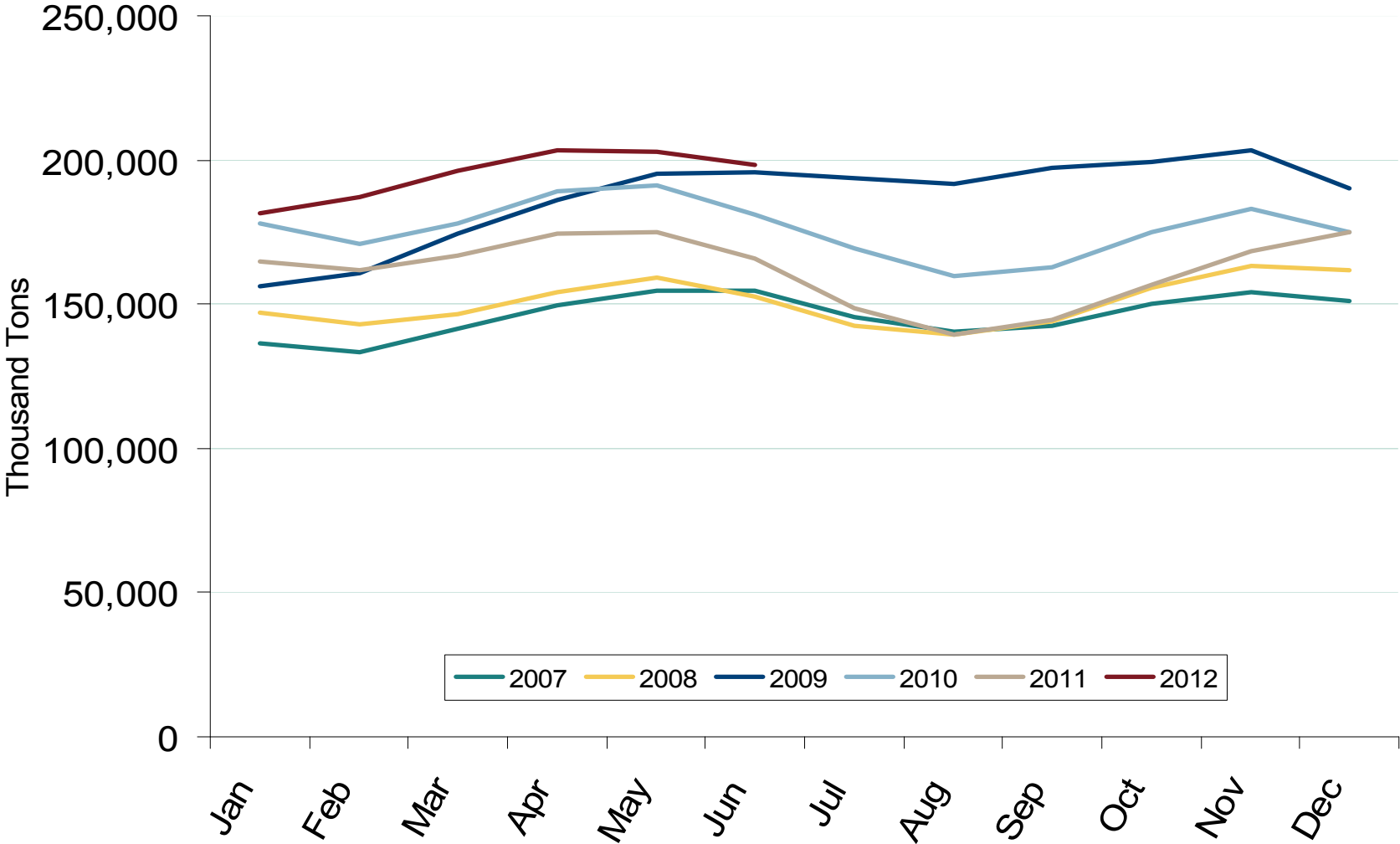
# Central Appalachian and Powder River Basin Coal Prices



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

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



Source: Derived from EIA data. Excludes Industrial and Commercial Plants  
September 2012 Northeast Snapshot Report

Updated: September 06, 2012