

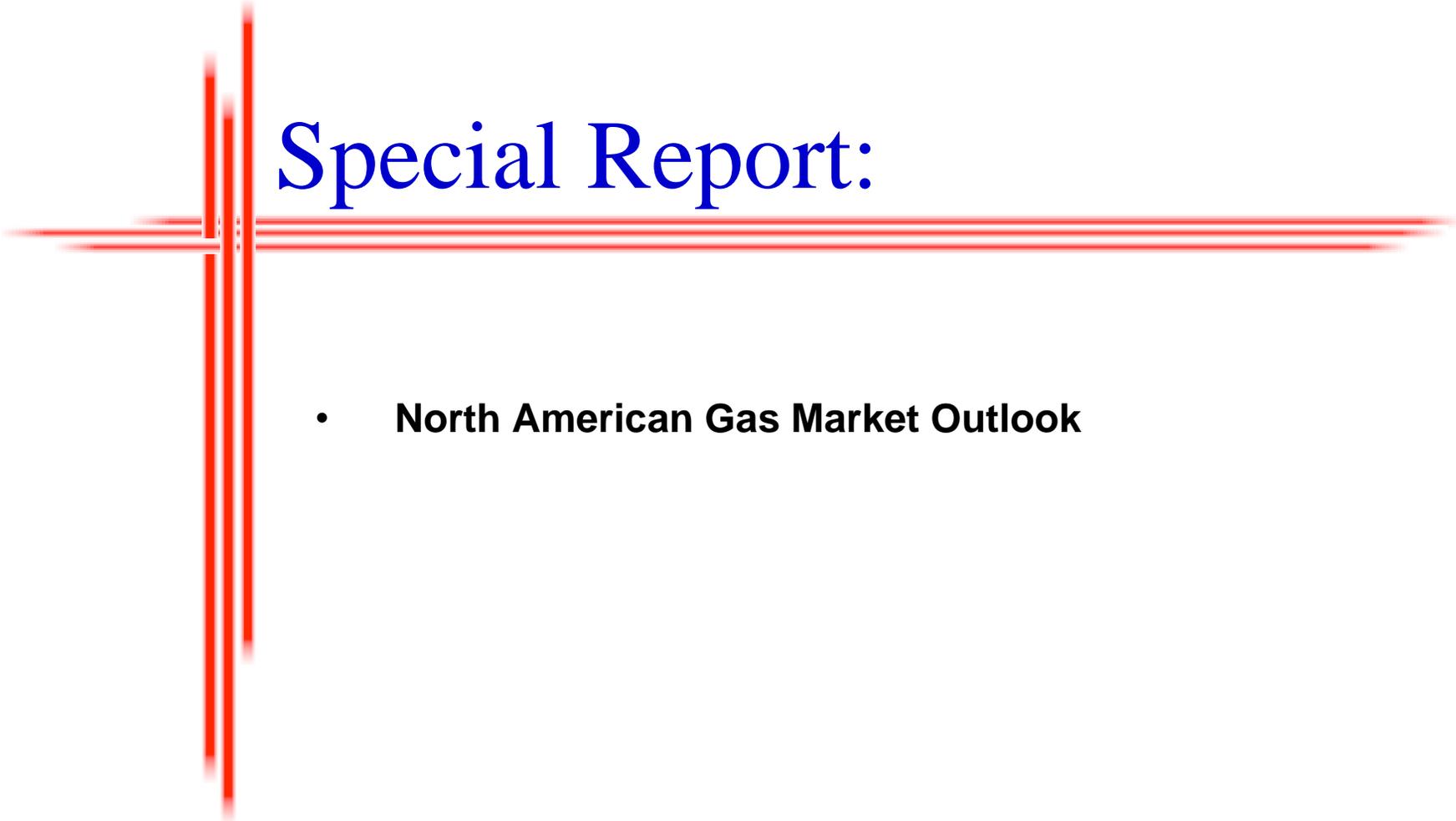
# OE ENERGY MARKET SNAPSHOT

## Northeast States Version – February 2009 Data

---

- **Special Report**
- **Natural Gas and Fuel Markets**
- **Electricity Markets**

Office of Enforcement  
Federal Energy Regulatory Commission  
March 2009



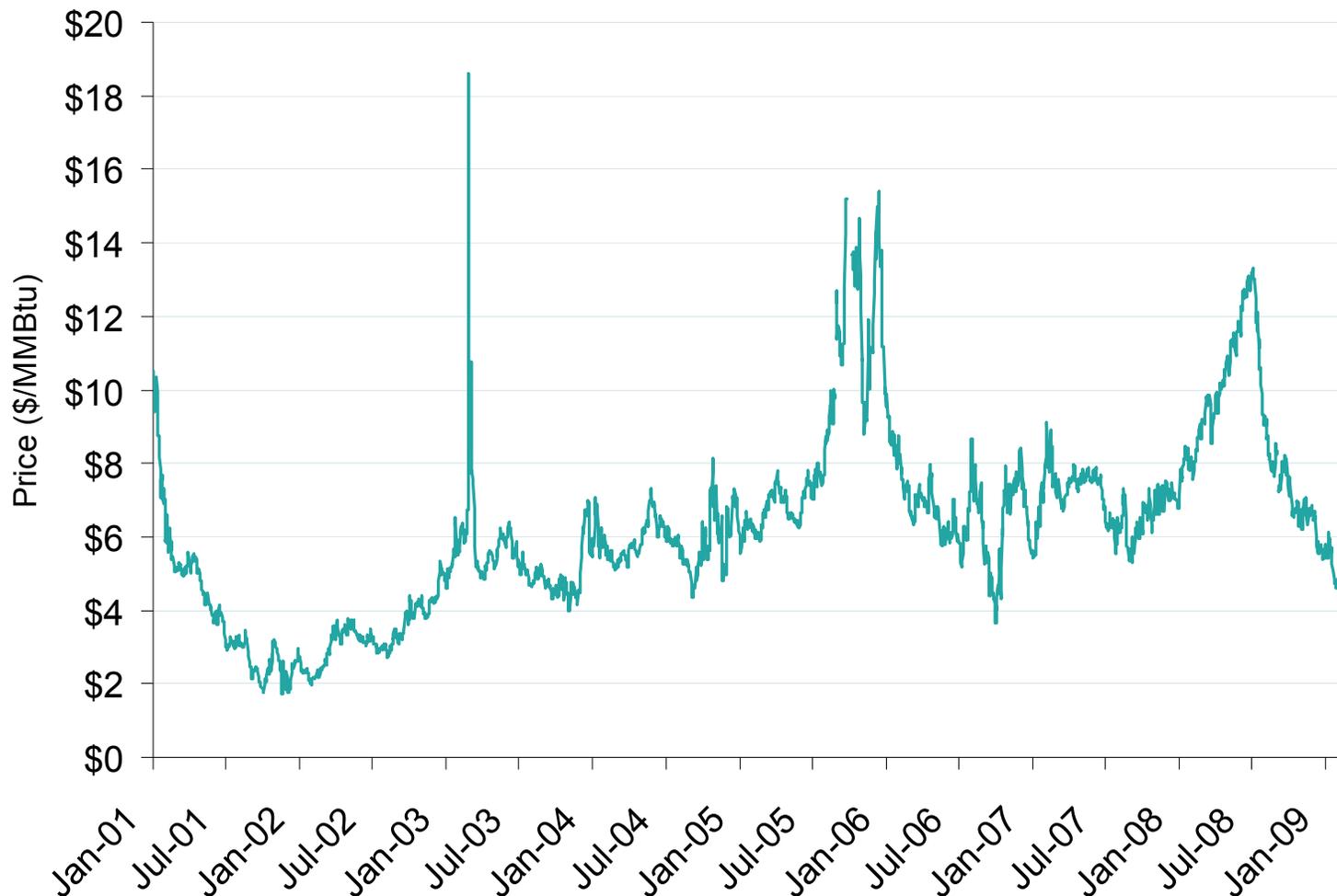
# Special Report:

- **North American Gas Market Outlook**

## Gas Market Outlook

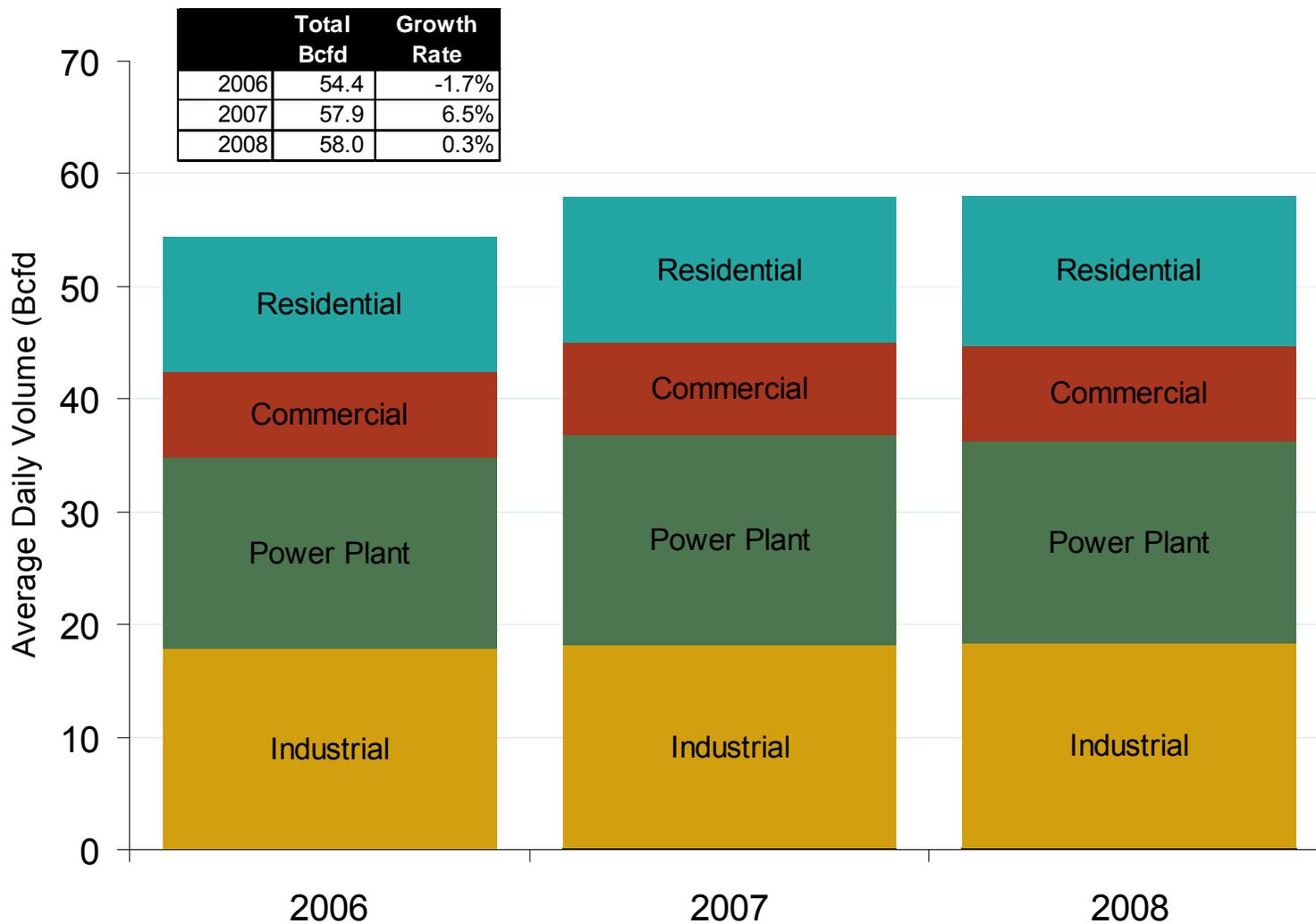
- Gas prices are the lowest they have been since fall 2002 and it's winter!
- Gas demand has dropped due to the financial crisis, right? Not really.
- Gas production up and still growing due to unconventional sources.
  - Infrastructure builds have enhanced deliverability.
  - Some analysts expect LNG imports to rise.
- Supply has to match demand – so something has got to give.
  - Gas storage levels may set records this year.
  - Production has got to come down. Drilling rig counts are in free fall.
    - Horizontal & directional rigs coming down more slowly than vertical rigs.
    - Average production per well is up.
  - Will gas prices go lower?
    - Futures prices for the fall at SoCal Border have collapsed.

## Henry Hub Natural Gas Daily Spot Prices 2001-2009



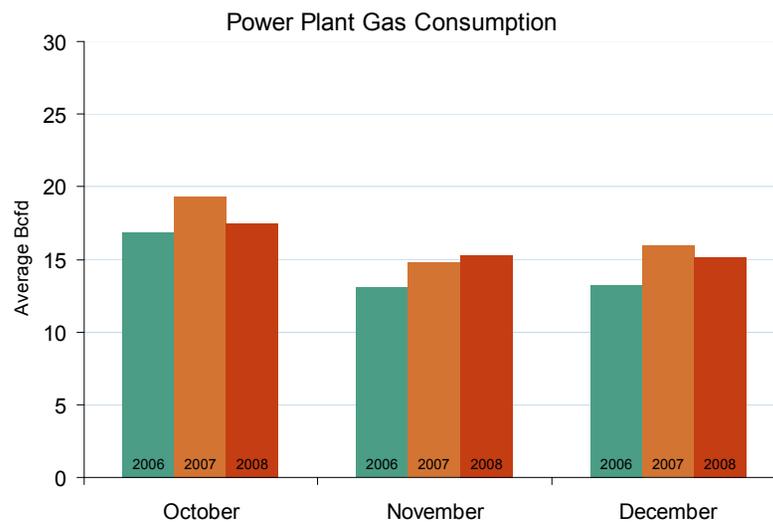
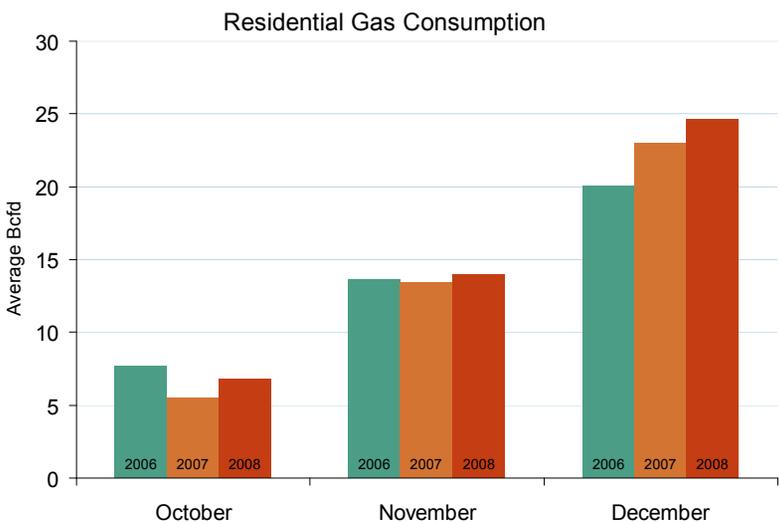
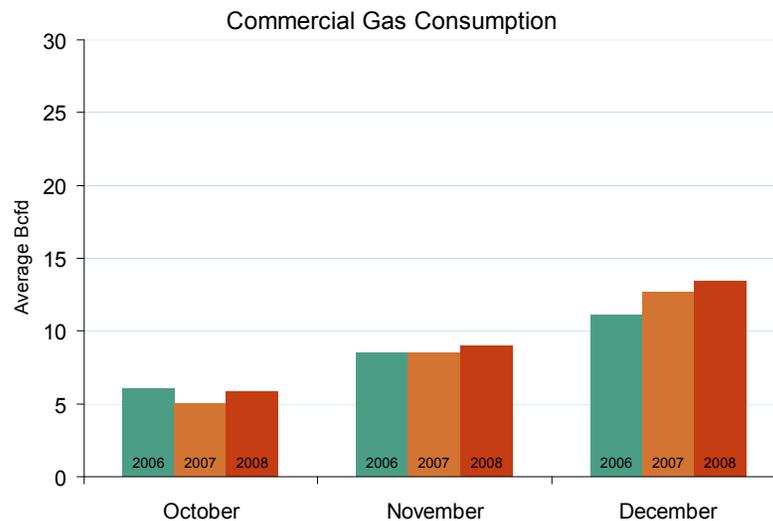
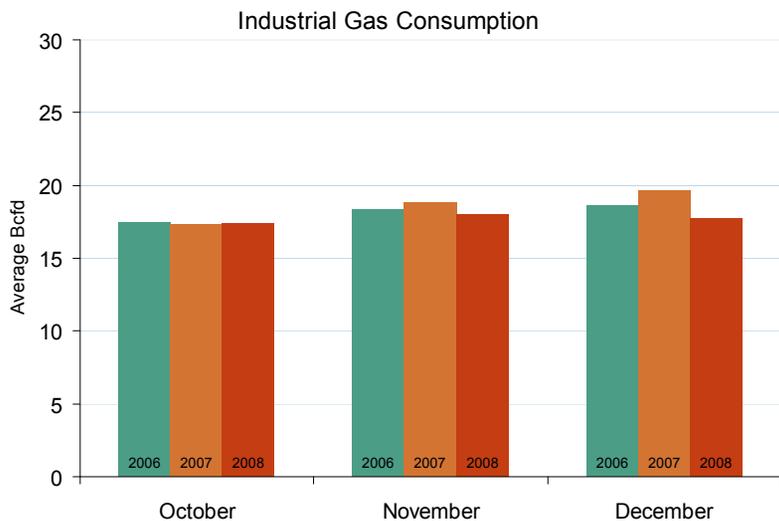
Source: Derived from *Platts* data.  
March 2009 Northeast Snapshot Report

## U.S. Natural Gas Consumption – Lower 48 States



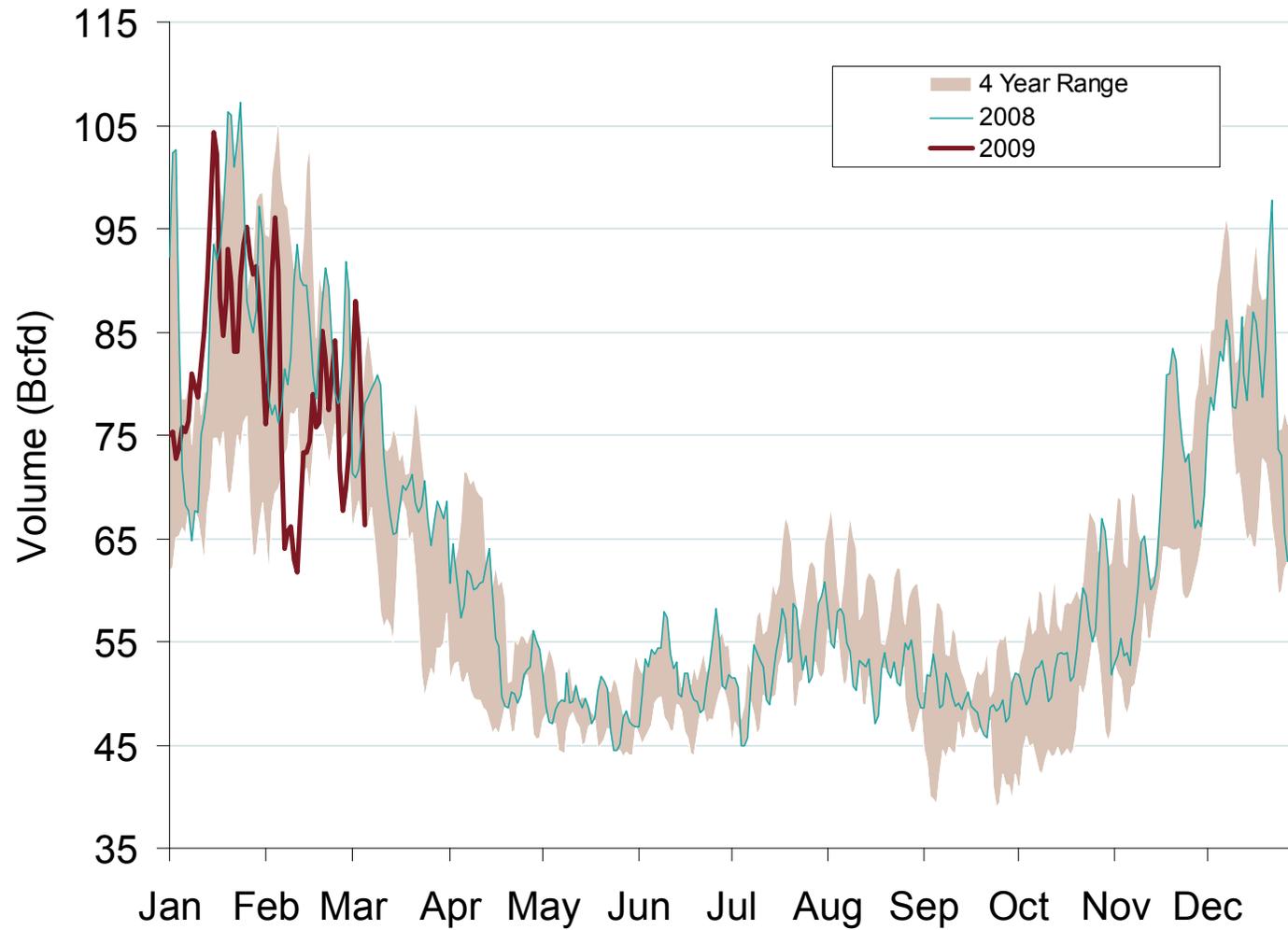
Source: Derived from EIA data.  
 March 2009 Northeast Snapshot Report

# U.S. Natural Gas Consumption

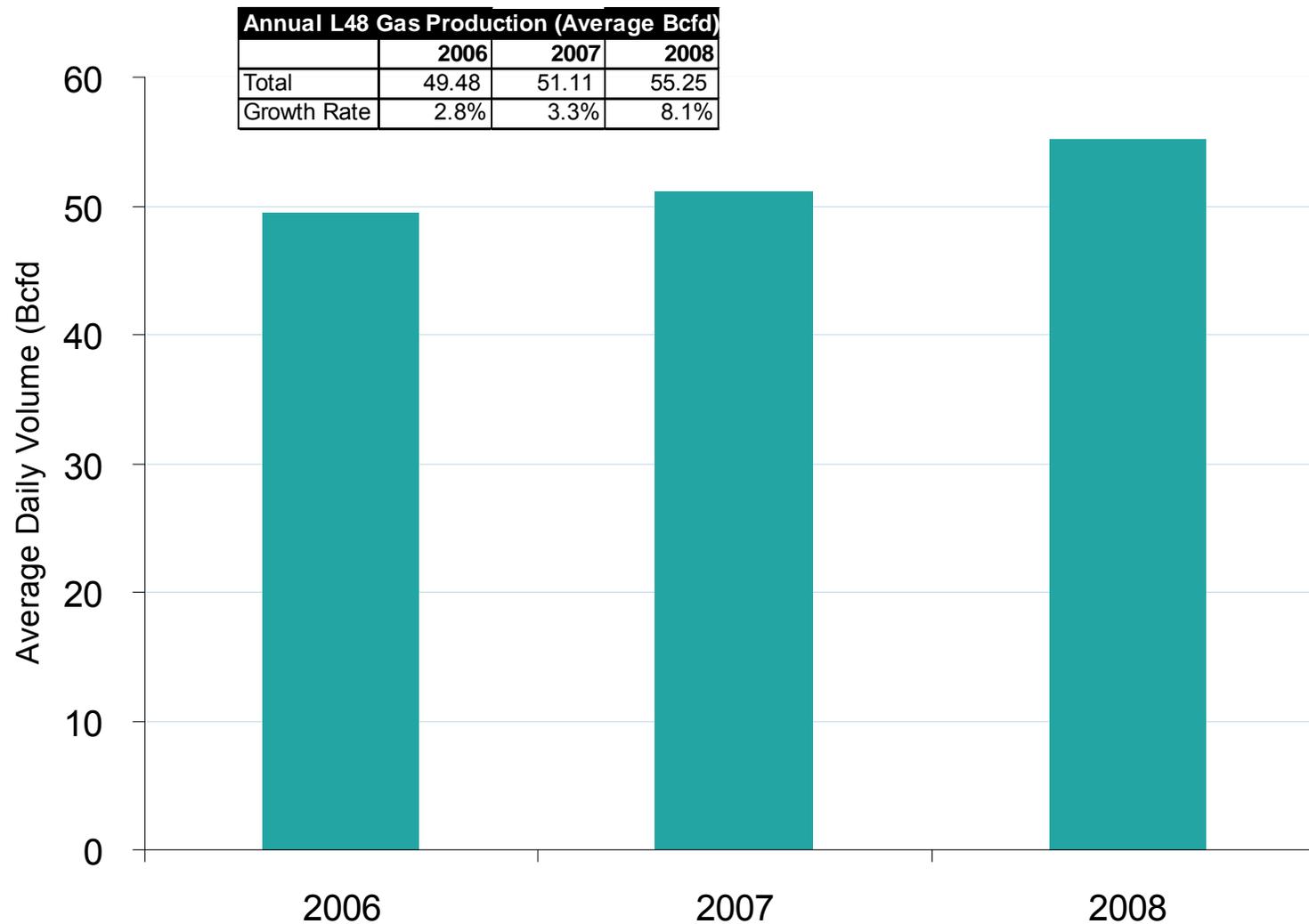


Source: Derived from EIA data. Lower 48 Only.  
 March 2009 Northeast Snapshot Report

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

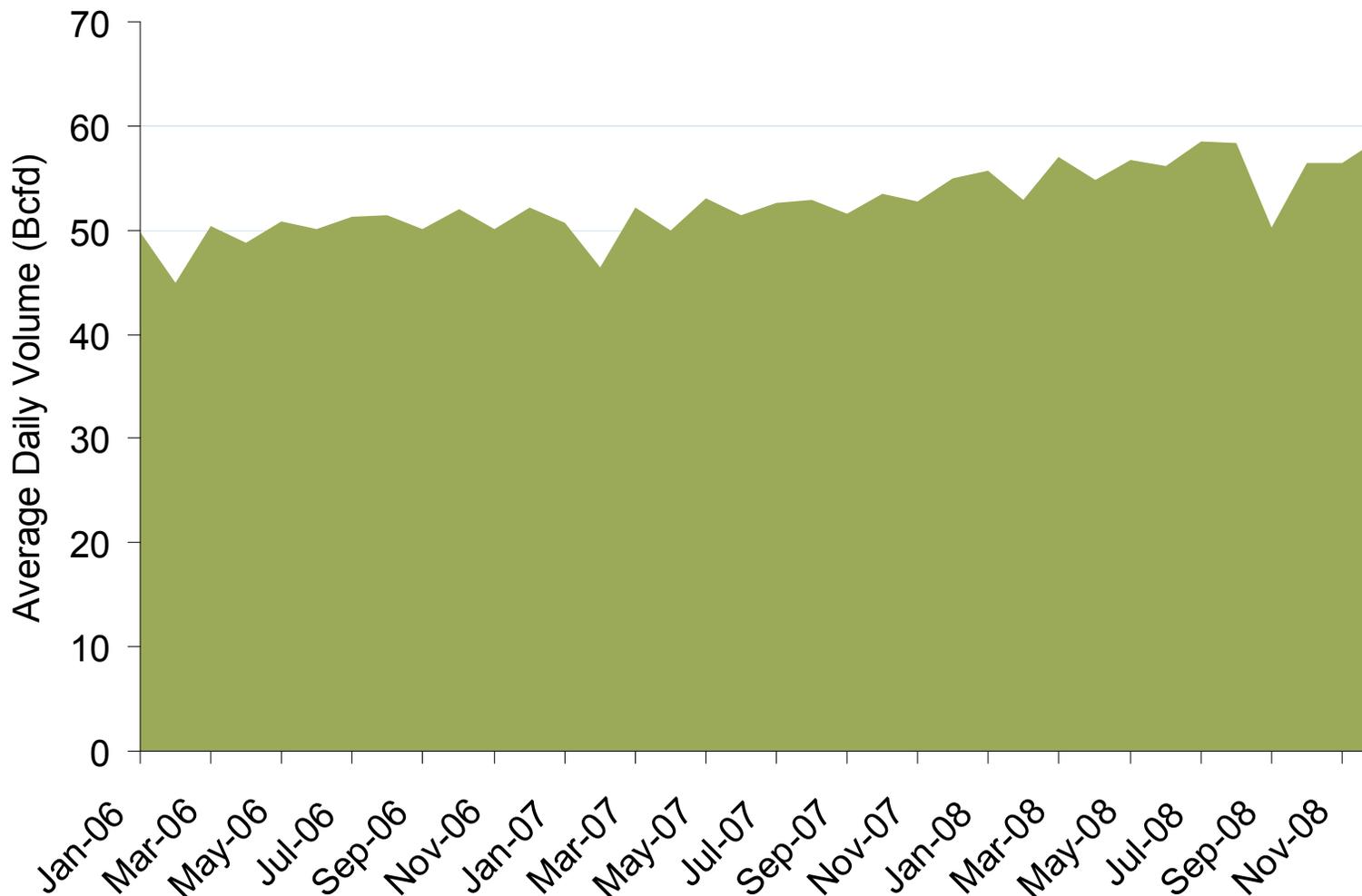


## U.S. Dry Gas Production – Lower 48 States



Source: Derived from EIA data.  
March 2009 Northeast Snapshot Report

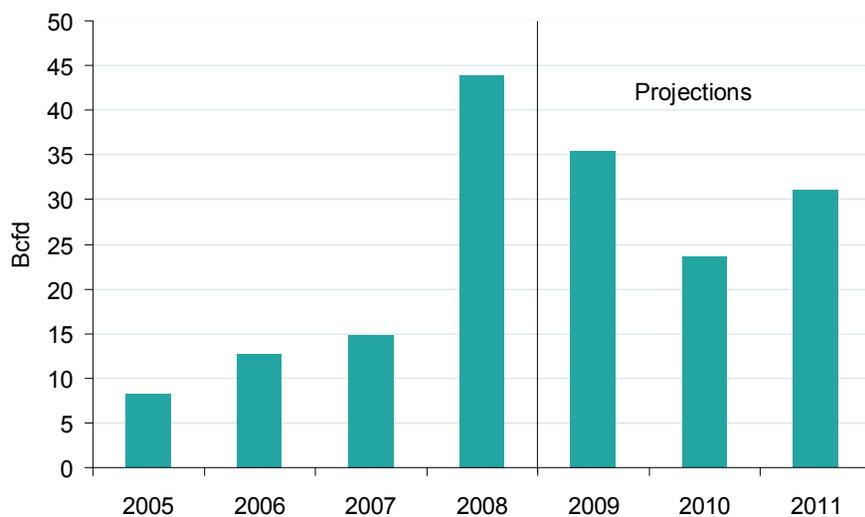
## US Gas Production Shows Robust Growth



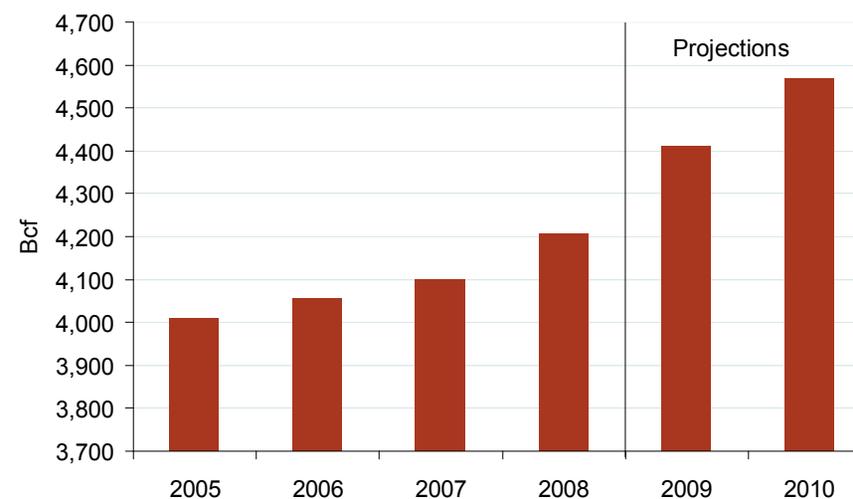
Source: Derived from EIA, *Monthly Energy Review*. Lower 48 Only.  
 March 2009 Northeast Snapshot Report

## U.S. Natural Gas Infrastructure Additions Pipeline and Storage Capacity Expected to Rise

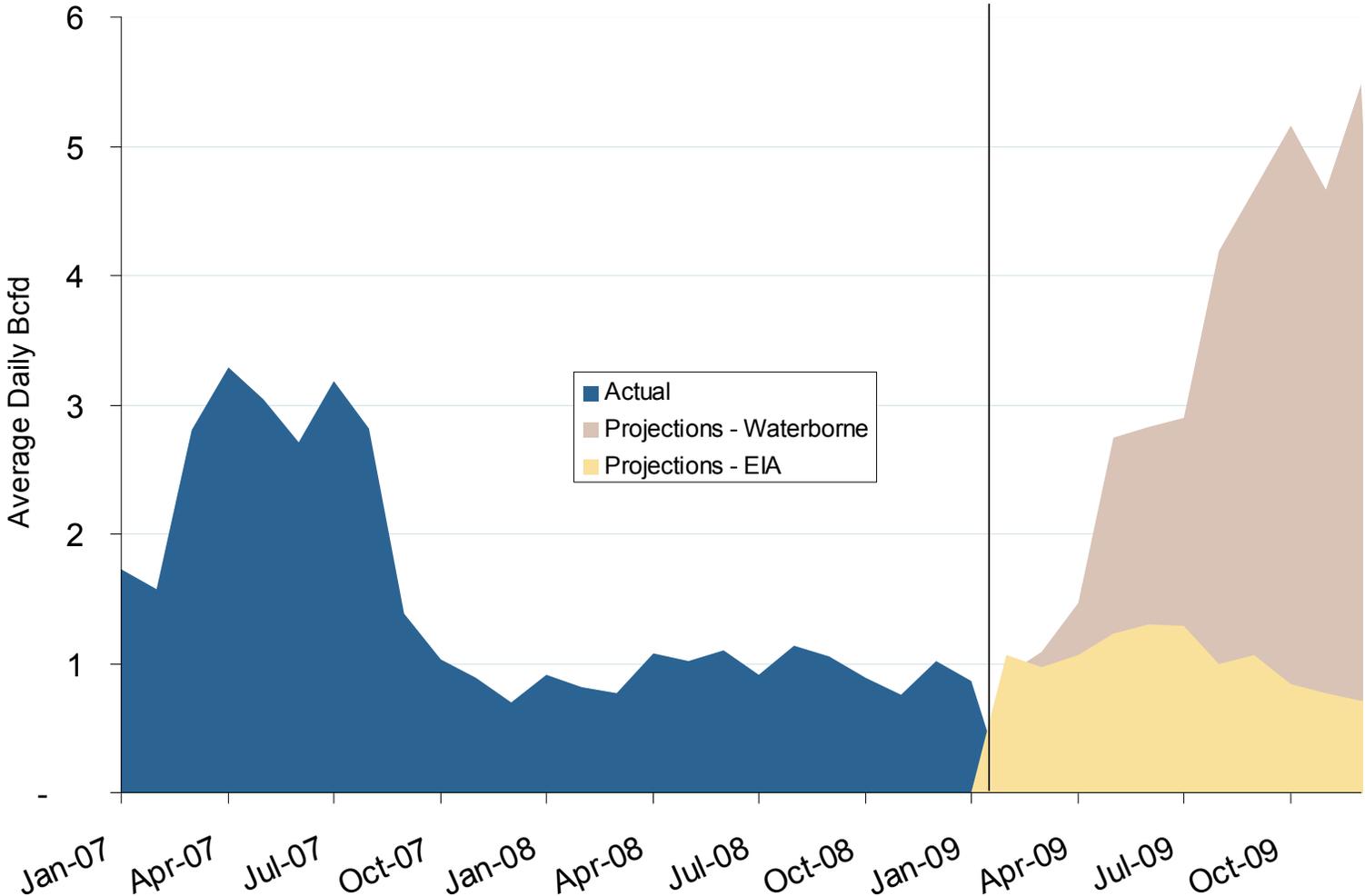
Additions to Interstate Pipeline



Additions to Working Gas Storage



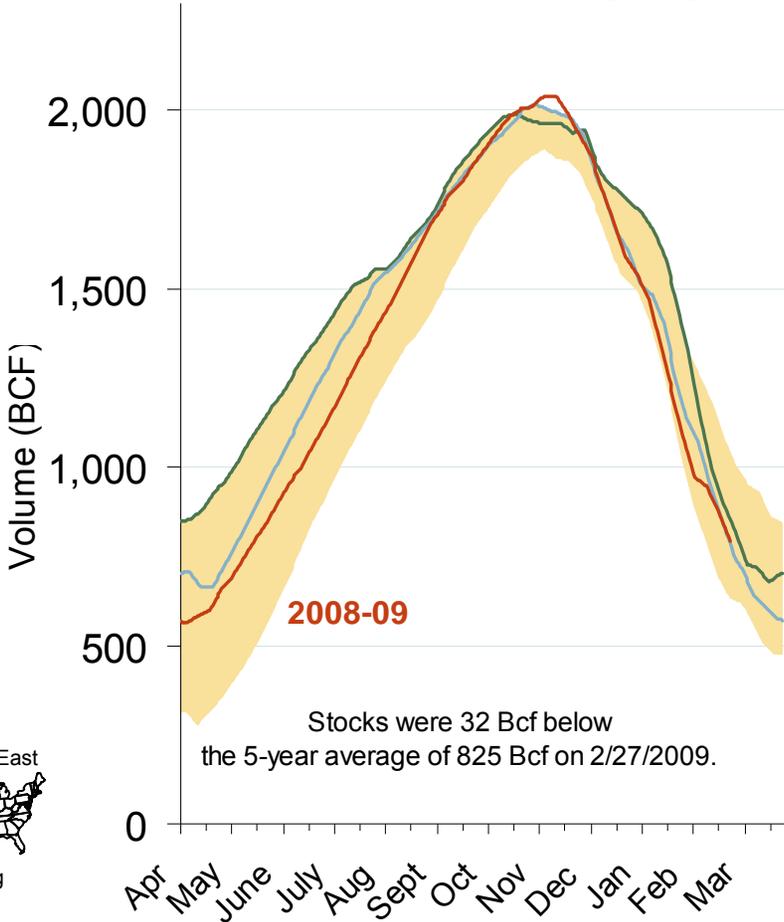
# Analyst Projections for Increased LNG Imports



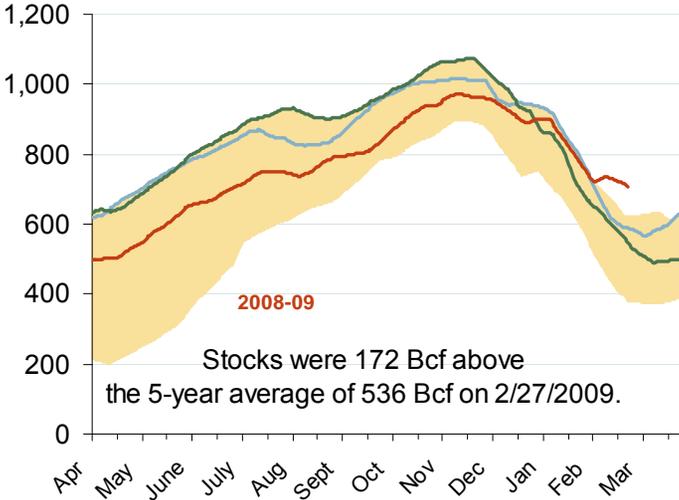
Source: Derived from EIA STEO and *Waterborne LNG* data.  
March 2009 Northeast Snapshot Report

# Regional Totals of Working Gas in Storage

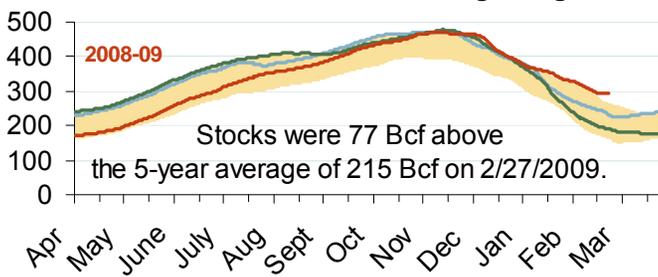
### Eastern Consuming Region



### Producing Region



### Western Consuming Region

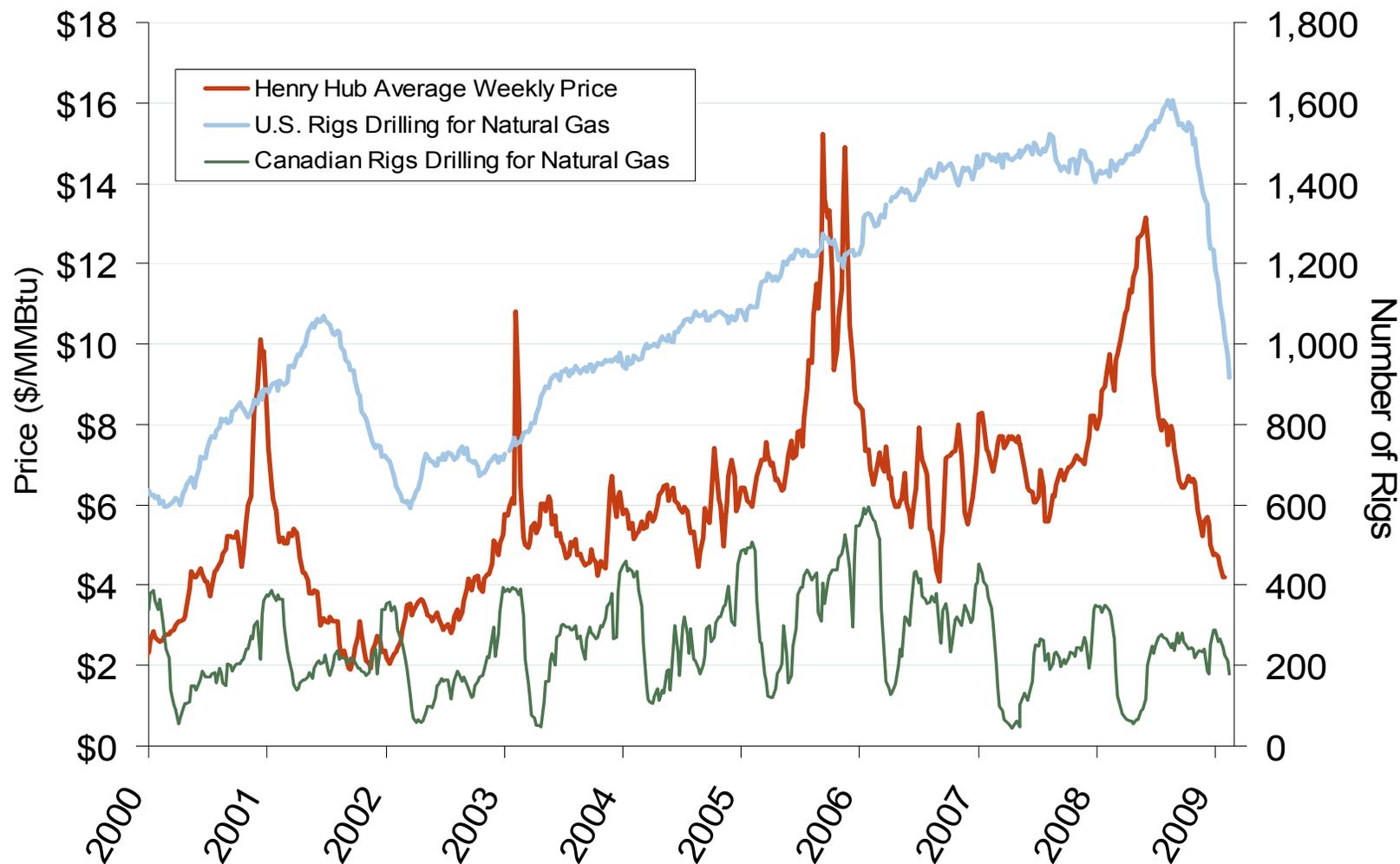


5-year range 2006 2007 2008

Source: Derived from EIA data.  
 March 2009 Northeast Snapshot Report

Updated March 9, 2009

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

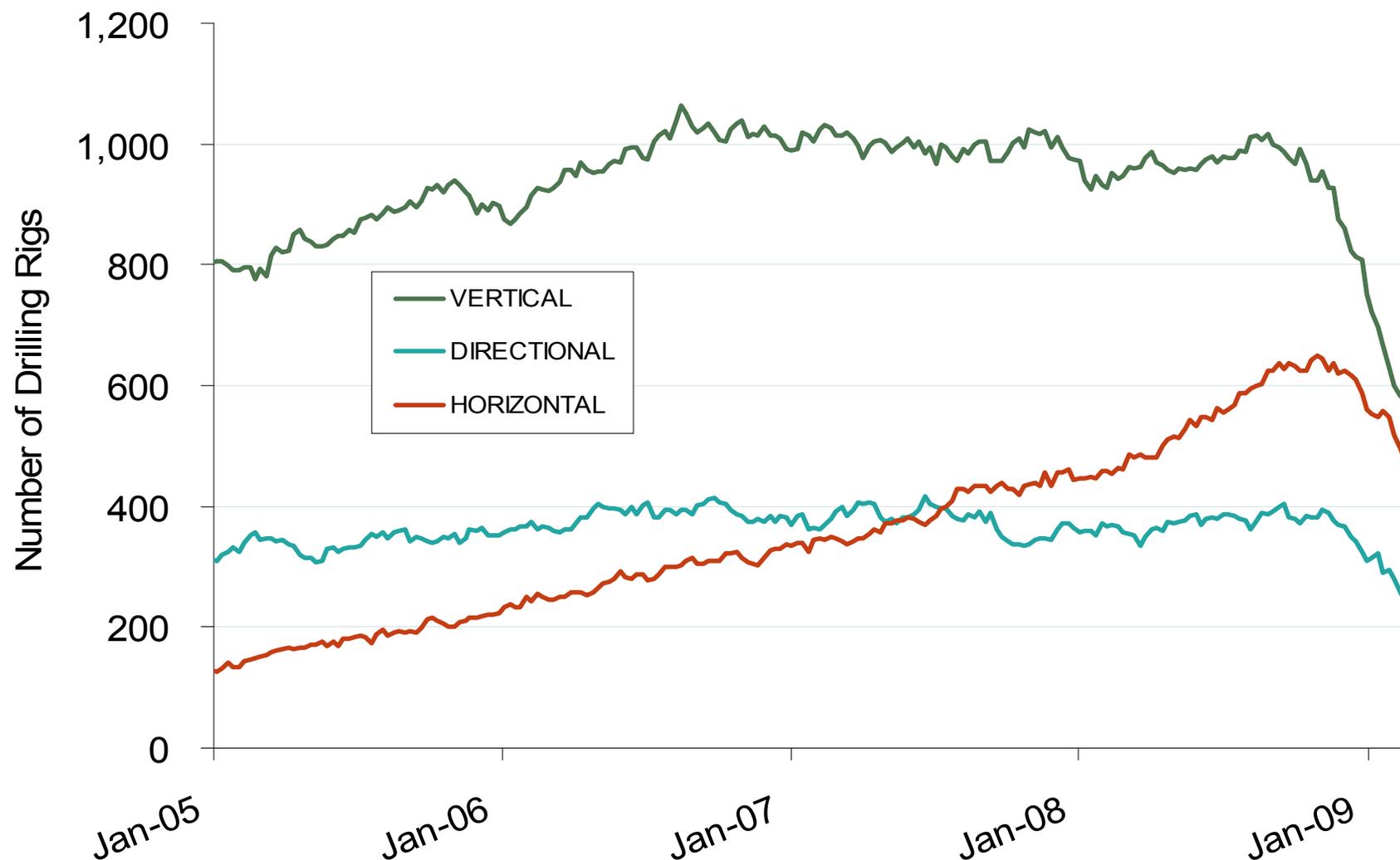


Source: Derived from *Platts* and *Baker Hughes* data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

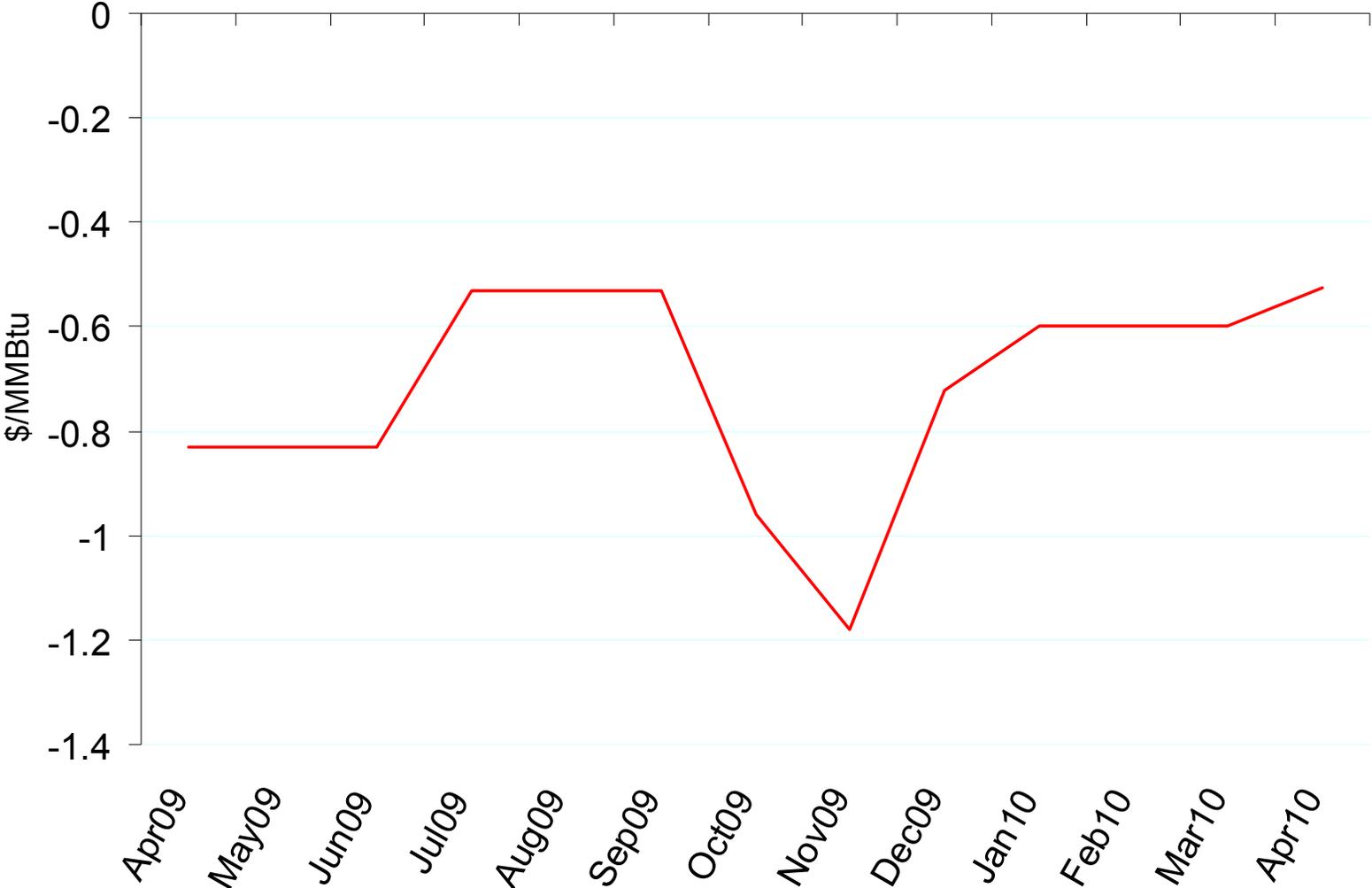
2007

## U.S. Oil and Natural Gas Drilling Rig Count by Type



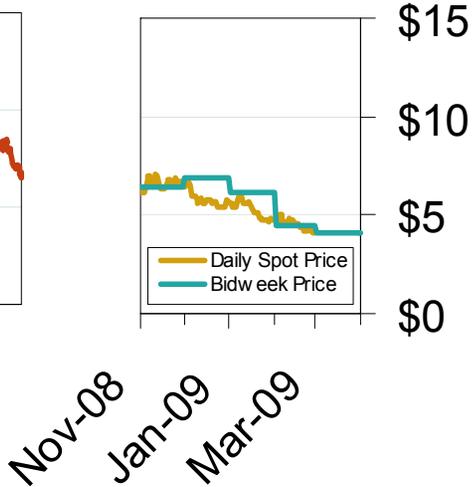
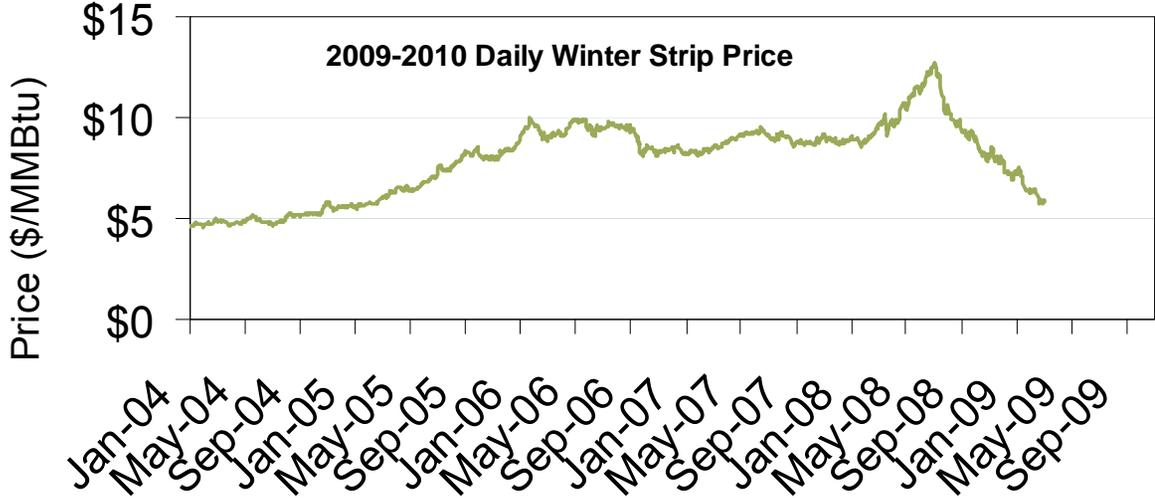
Source: Derived from *Baker Hughes* data.  
March 2009 Northeast Snapshot Report

# SoCal Border Forward Basis Swap



Source: Derived from *Bloomberg* data.  
March 2009 Northeast Snapshot Report

# Natural Gas Winter Futures Strip - Henry Hub



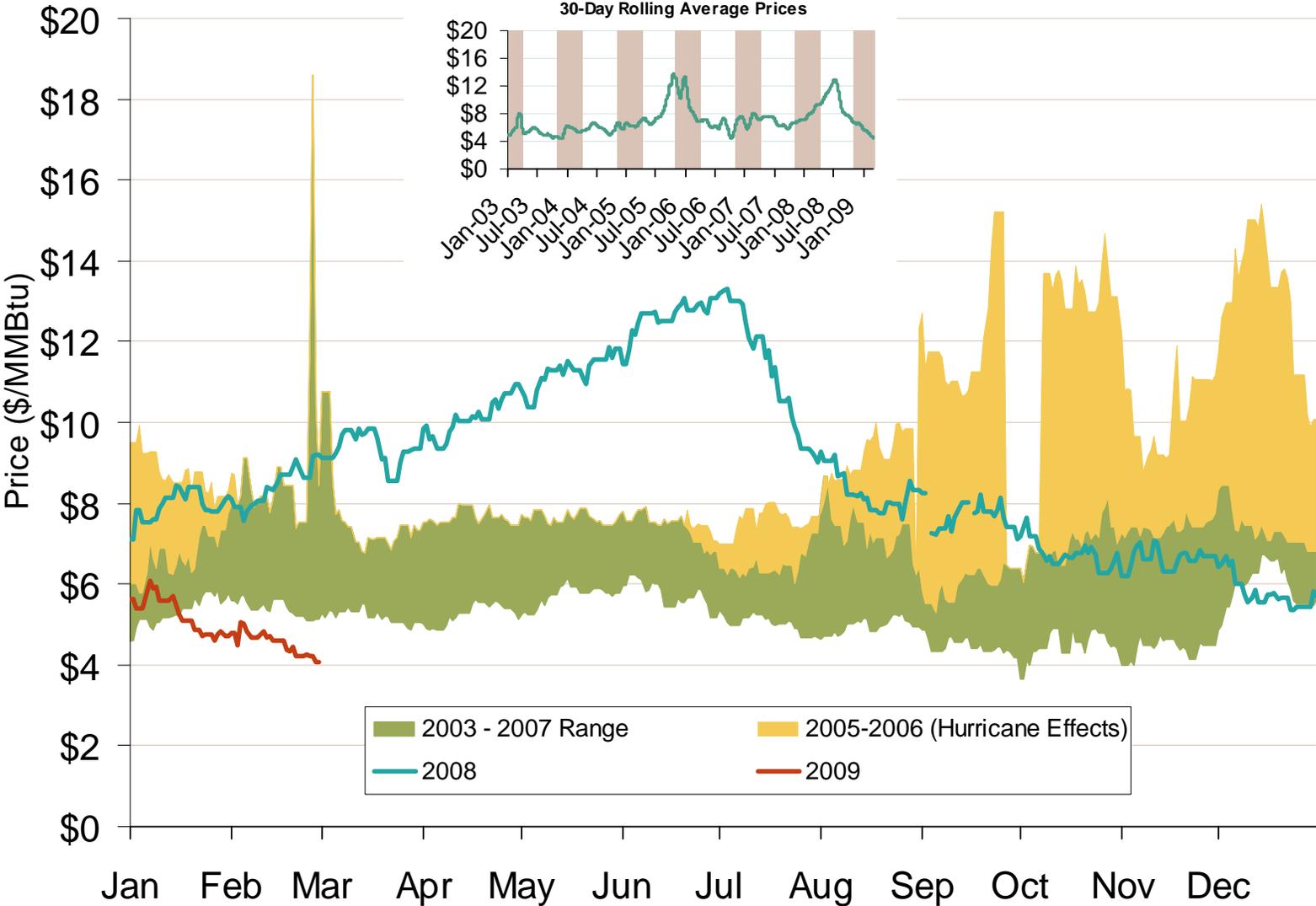
Source: Derived from EIA, *Monthly Energy Review*.  
March 2009 Northeast Snapshot Report



# Natural Gas and Fuel Markets

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

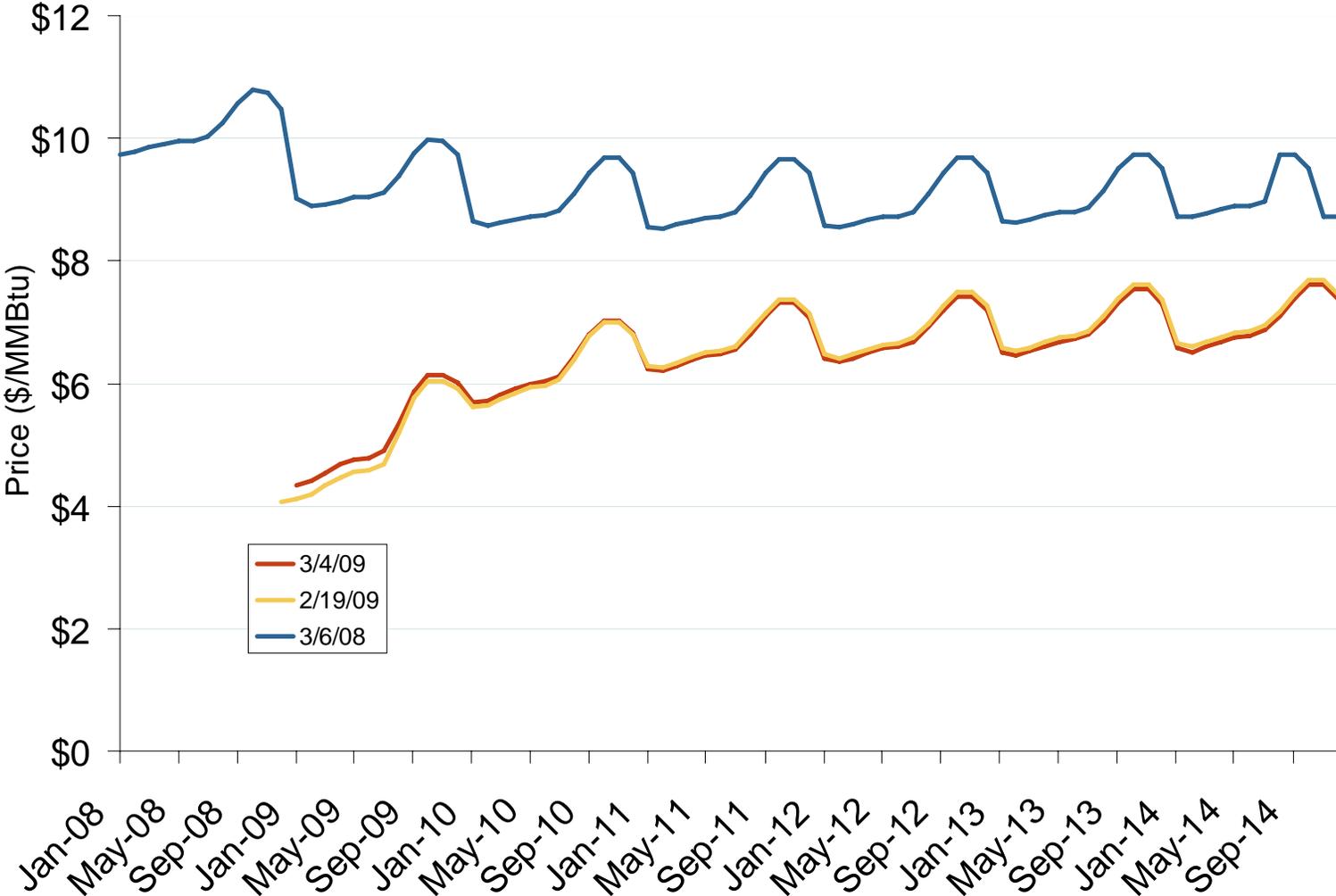
# Henry Hub Natural Gas Daily Spot Prices 2008, 2009 and 2003-2007 Year Range



Source: Derived from *Platts* data.  
March 2009 Northeast Snapshot Report

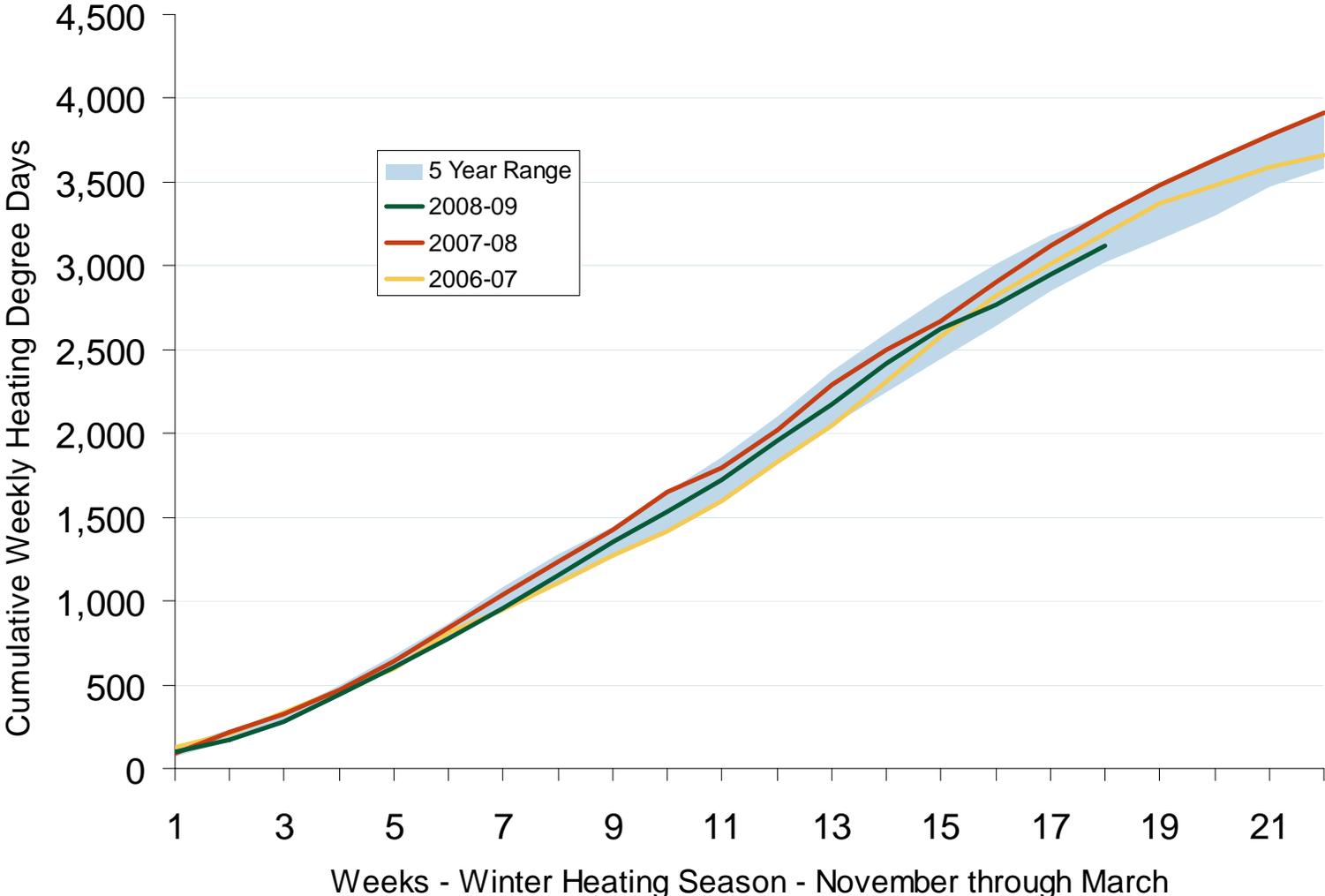
Updated March 9, 2009

# NYMEX Natural Gas Forward Price Curve



Source: Derived from NYMEX data.  
March 2009 Northeast Snapshot Report

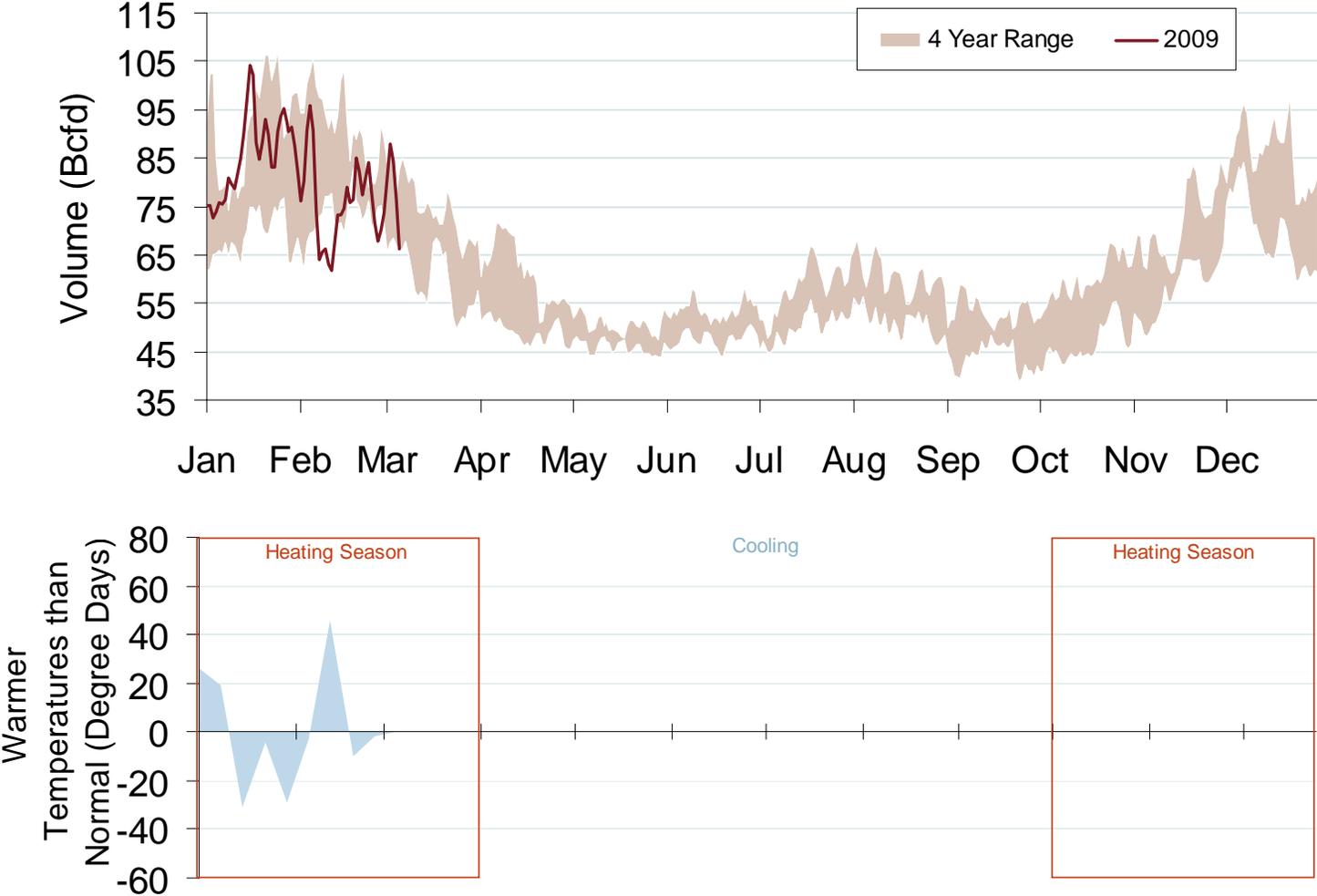
# U. S. Winter Cumulative Heating Degree Days



Source: Derived from NOAA data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

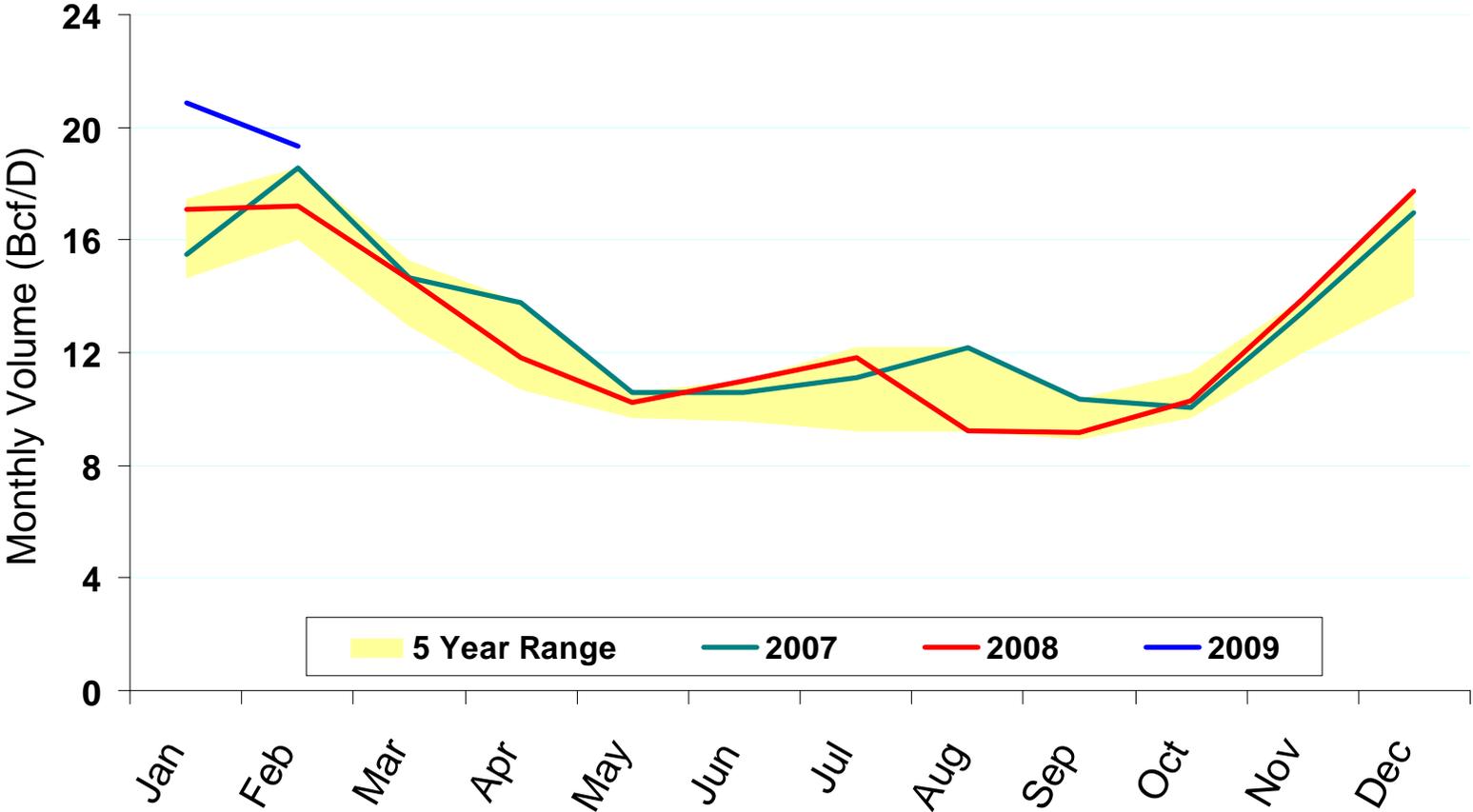
# Total U.S. Natural Gas Demand (All Sectors) and Temperatures



Source: Derived from *Bentek Energy* data.  
March 2009 Northeast Snapshot Report

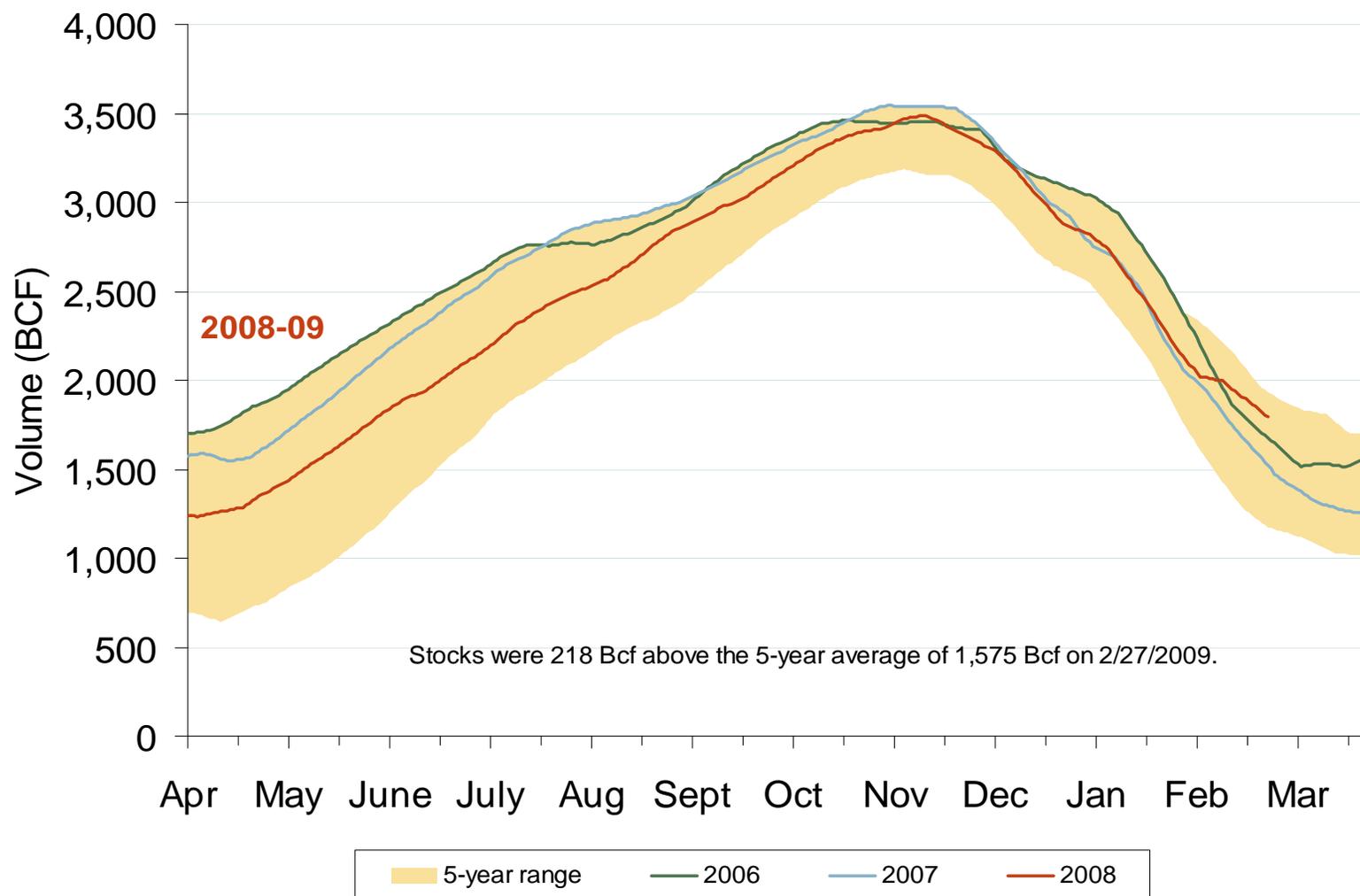
Updated March 9, 2009

# Average Daily Northeast Natural Gas Demand All Sectors

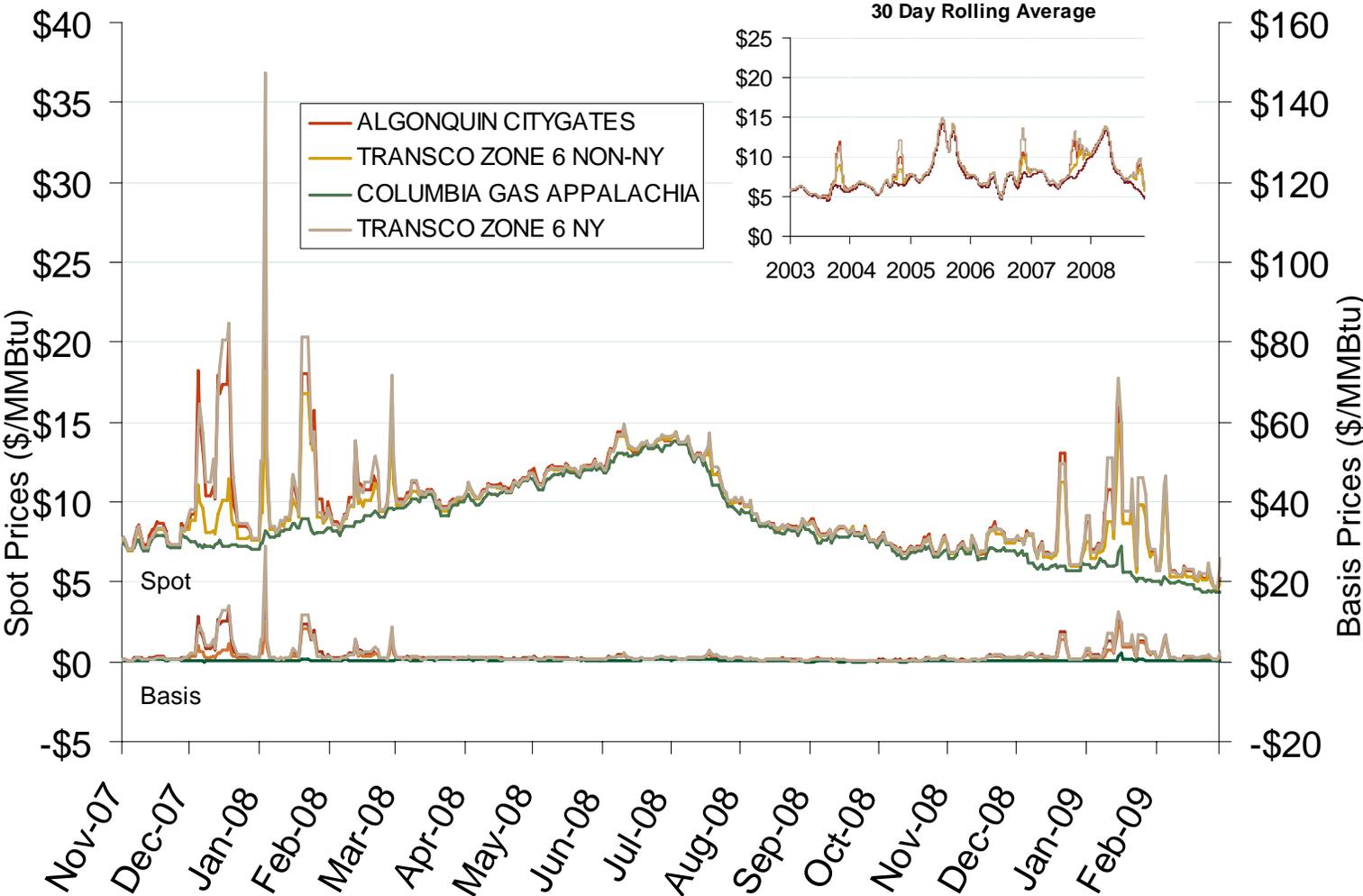


Source: Derived from *Bentek* data.  
March 2009 Northeast Snapshot Report

## Total U.S. Working Gas in Storage



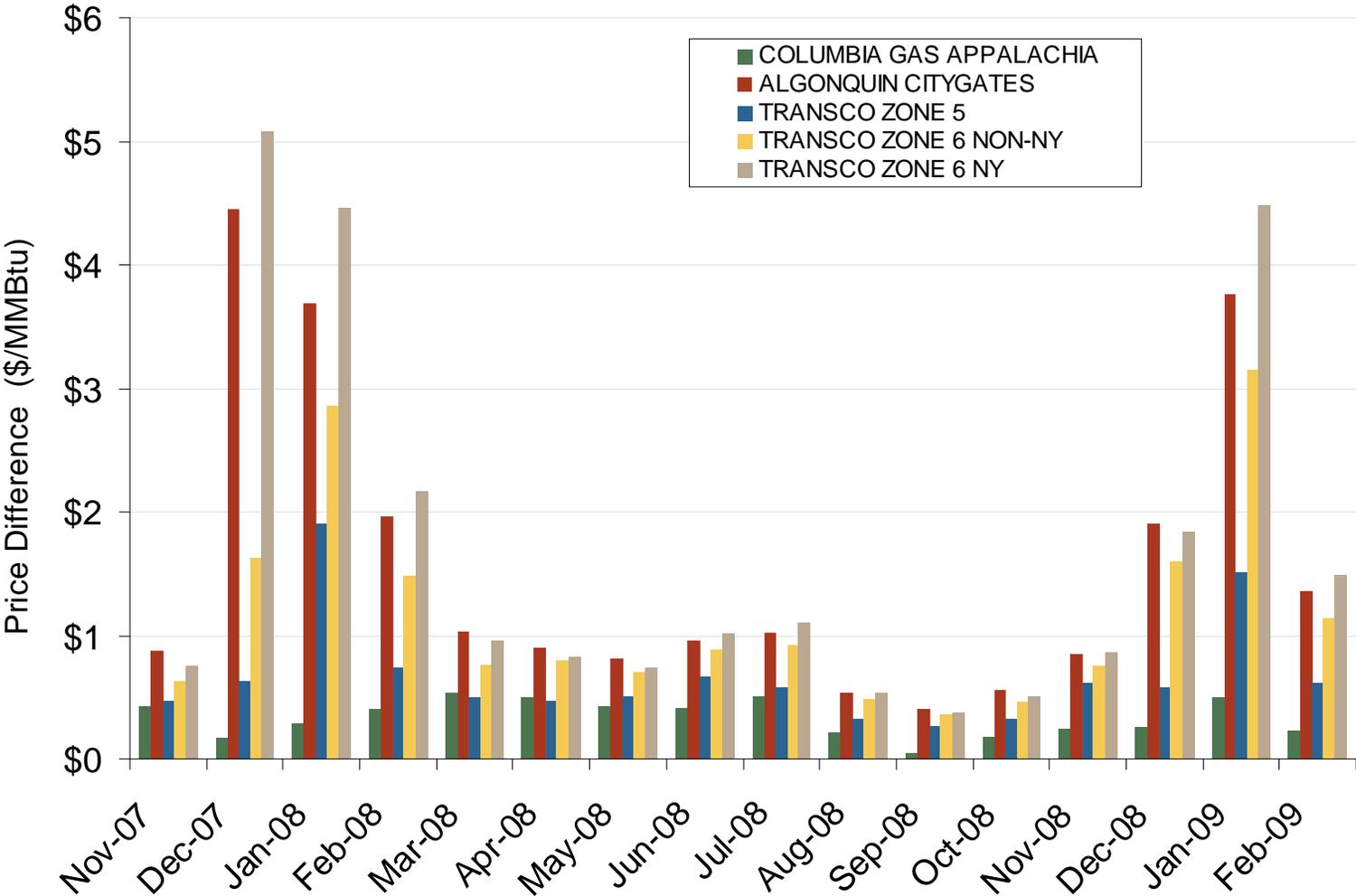
# Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

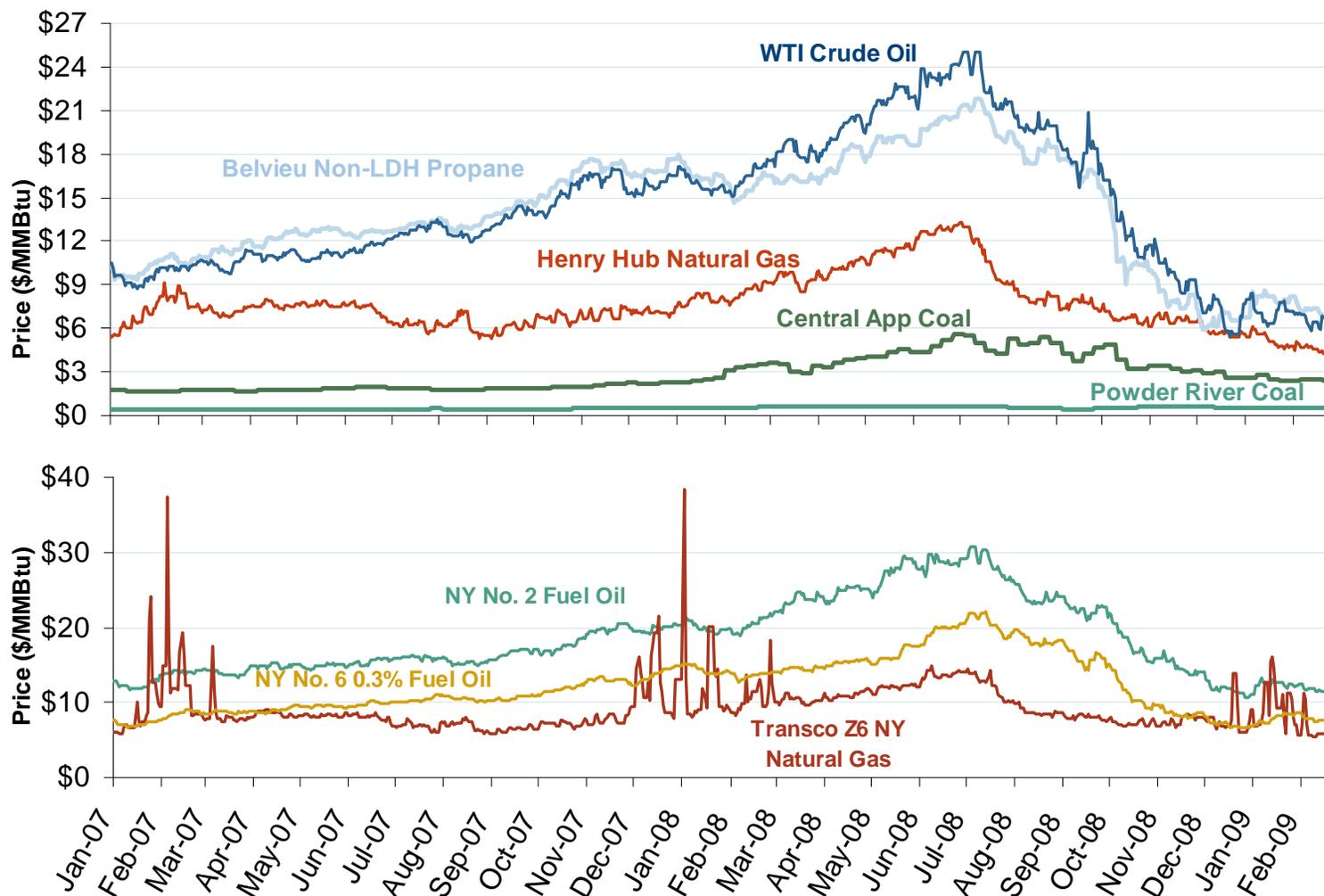
# Northeastern Monthly Average Basis Value to Henry Hub



Source: Derived from Platts data. March 2009 Northeast Snapshot Report

Updated March 9, 2009

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

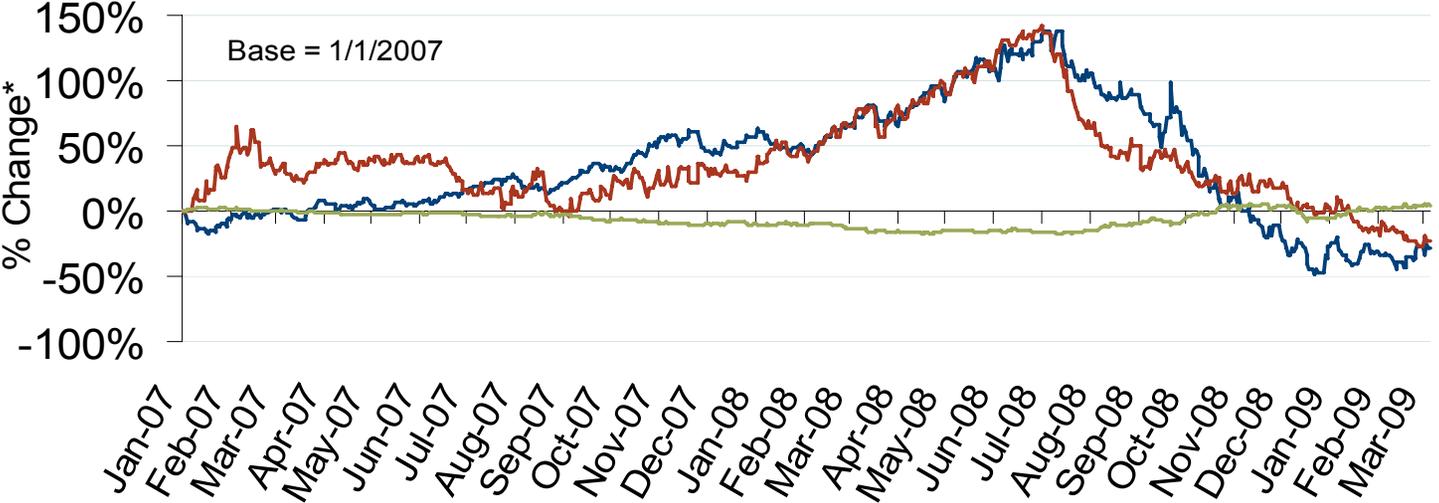
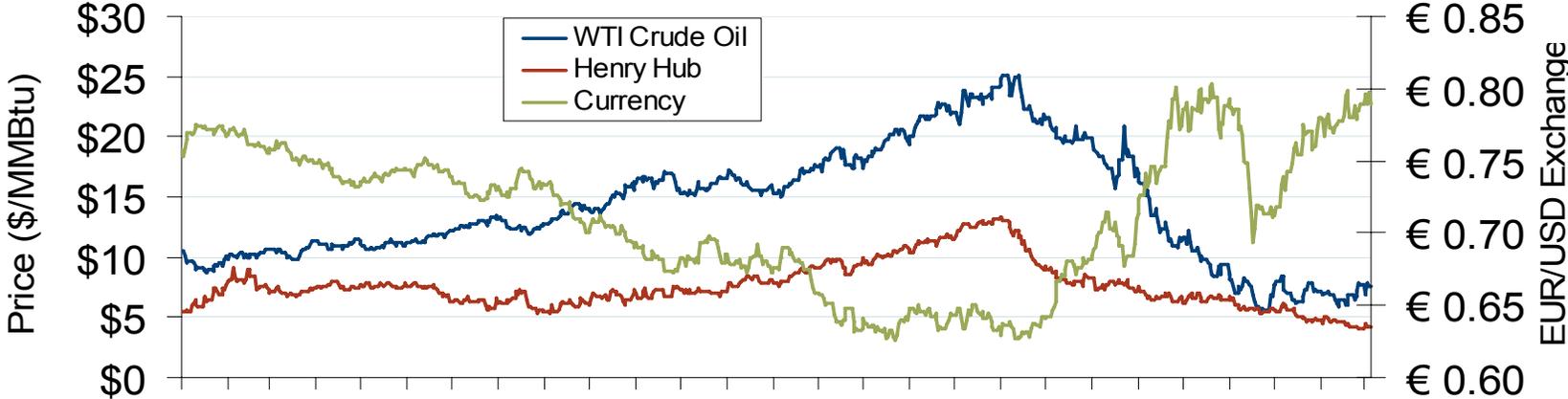


Source: Derived from ICE and Bloomberg data.

Note: 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.

Updated March 9, 2009

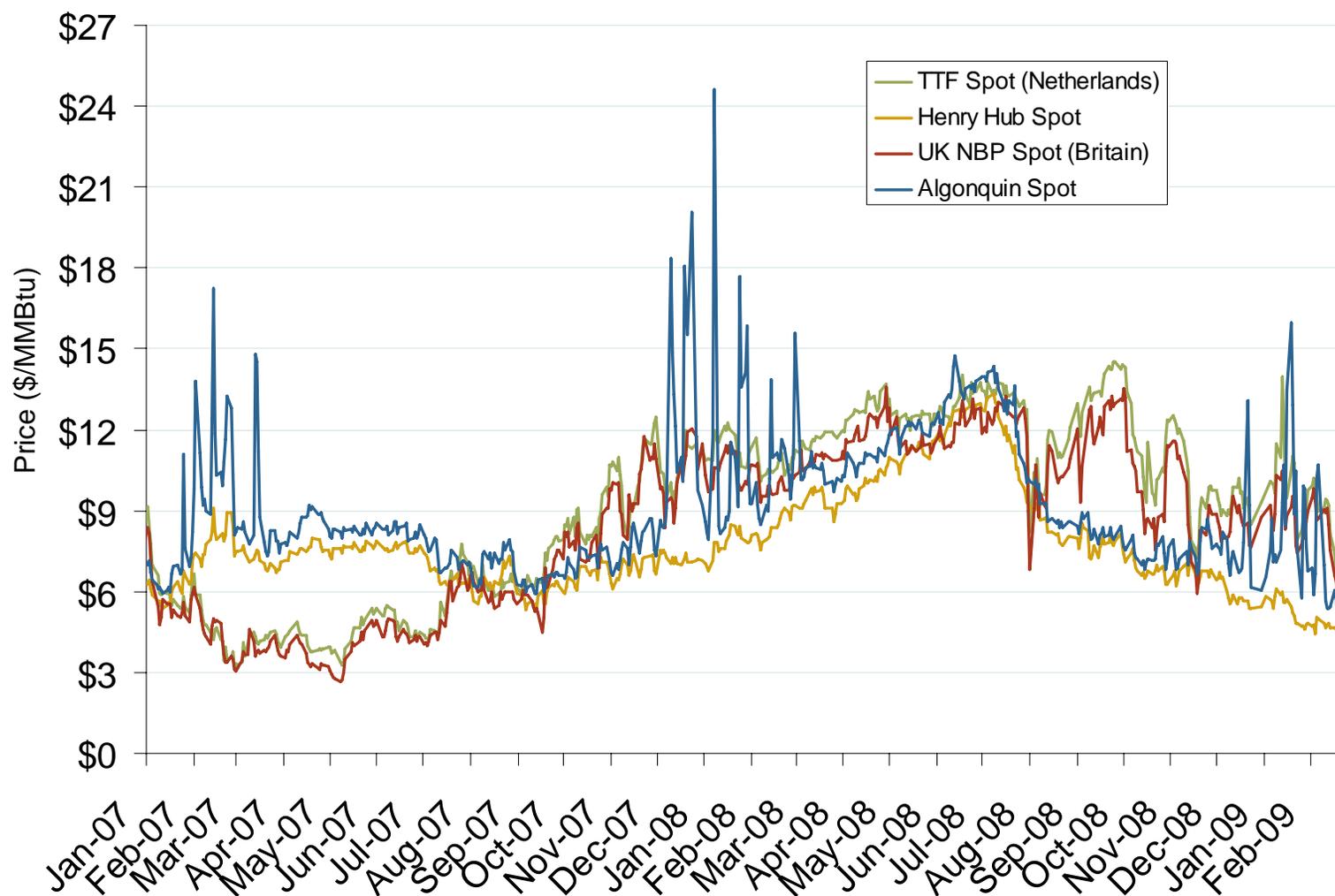
# Oil, Natural Gas and Currency Spot Prices



Source: Derived from *Bloomberg* data.

Updated March 9, 2009

## Atlantic Basin European and US Spot Natural Gas Prices



Source: Derived from *Bloomberg* and *ICE* data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

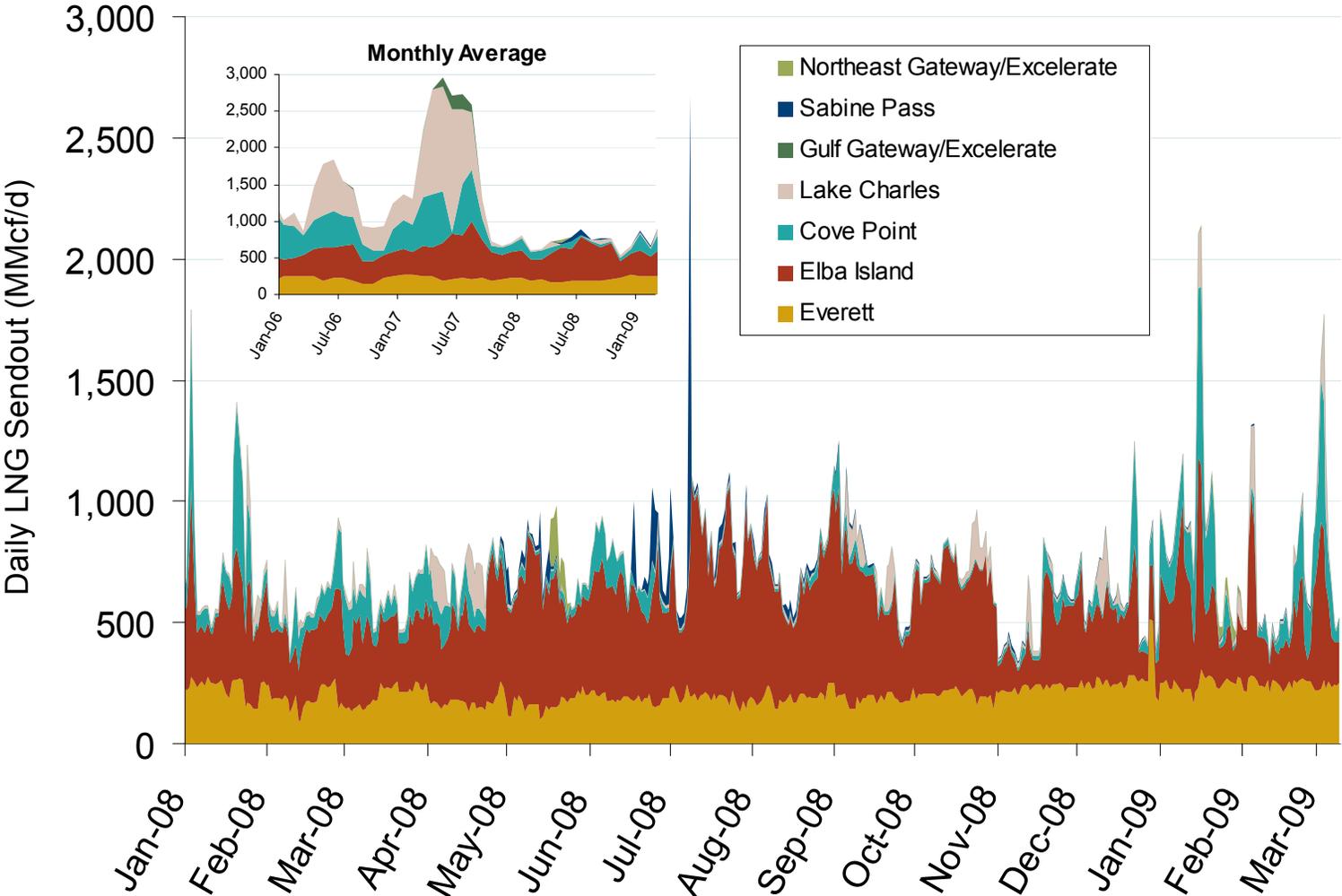
# World LNG Estimated March 2009 Landed Prices



Source: Waterborne Energy, Inc. Data in \$US/MMBtu.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

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

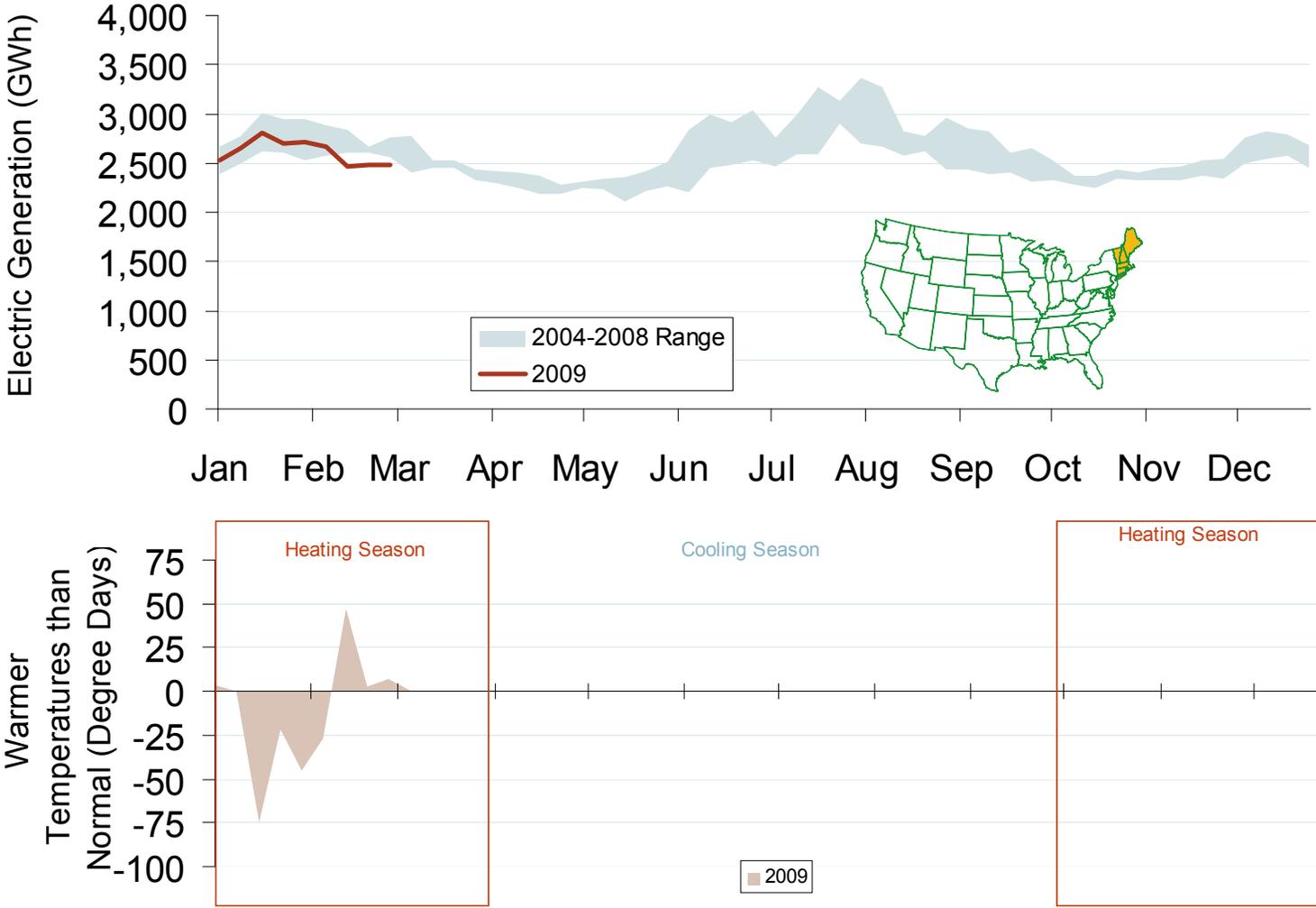


Source: Derived from *Bentek* data. Excludes Everett LNG delivered via truck and consumed by the Mystic plant as well as Freeport LNG which flows via intrastate pipelines.  
 March 2009 Northeast Snapshot Report



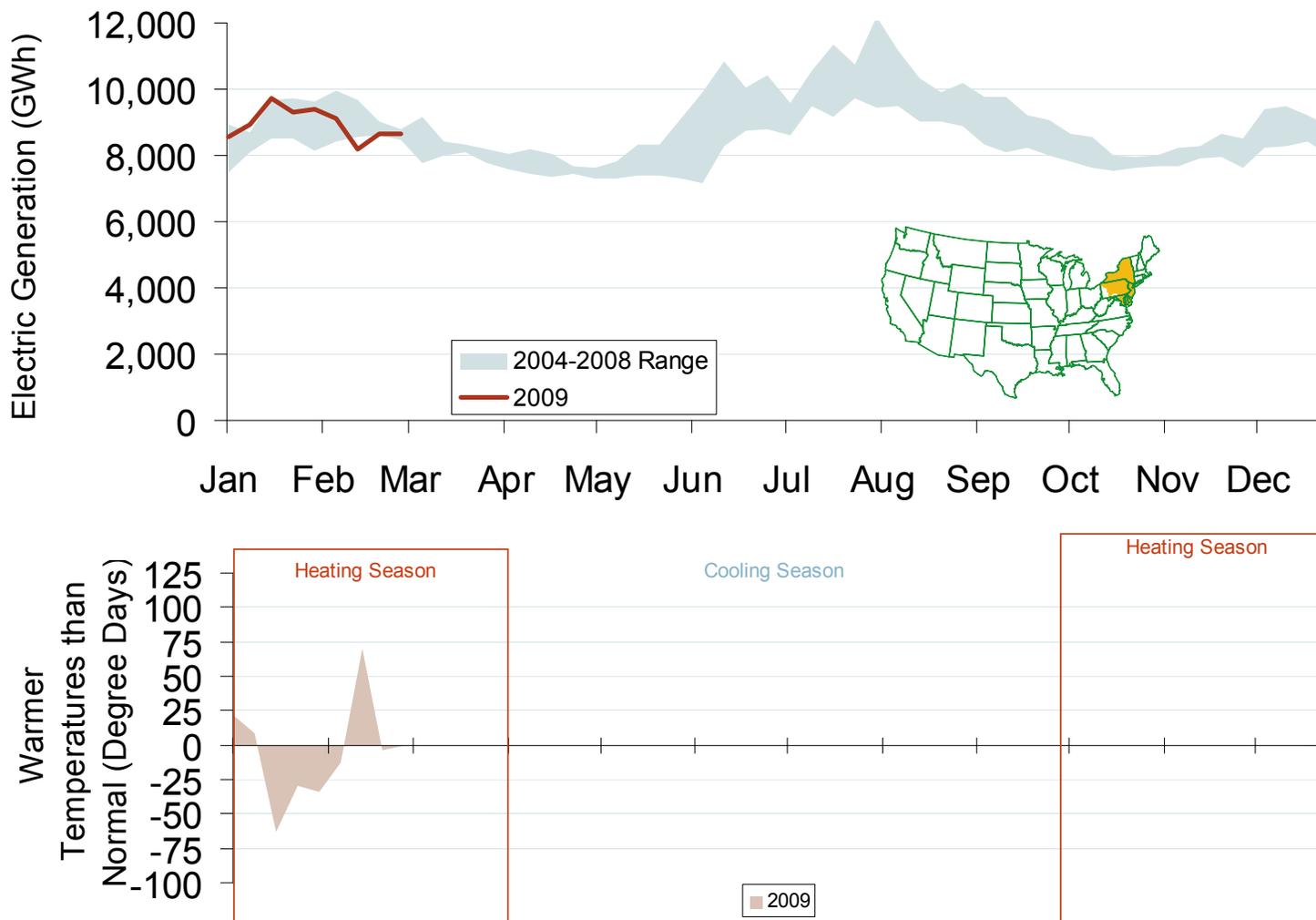
# Electricity Markets

# Weekly Electric Generation Output and Temperatures New England

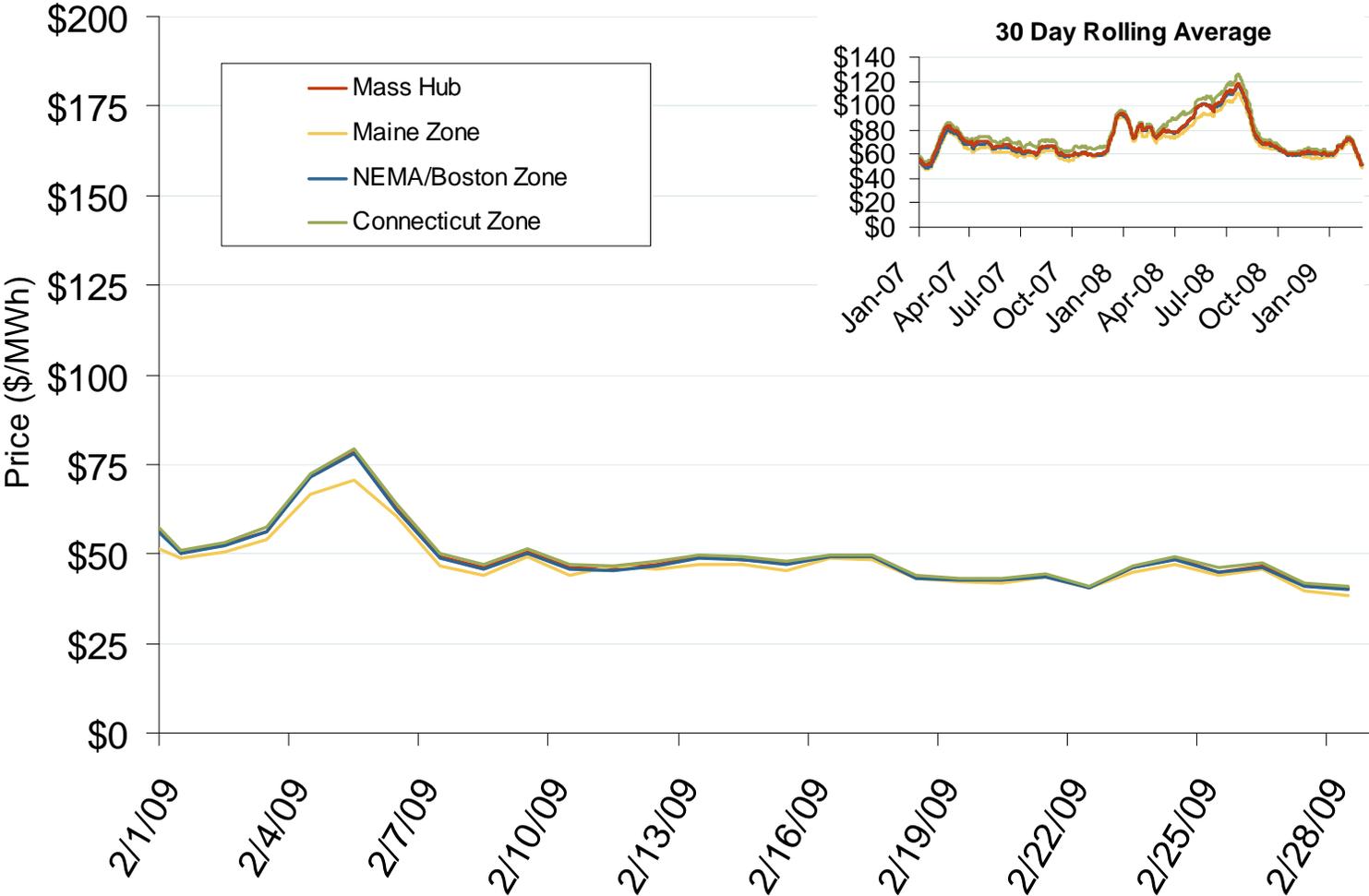


Source: Derived from *EEl* and *NOAA* data.  
March 2009 Northeast Snapshot Report

# Weekly Electric Generation Output and Temperatures Mid Atlantic Region



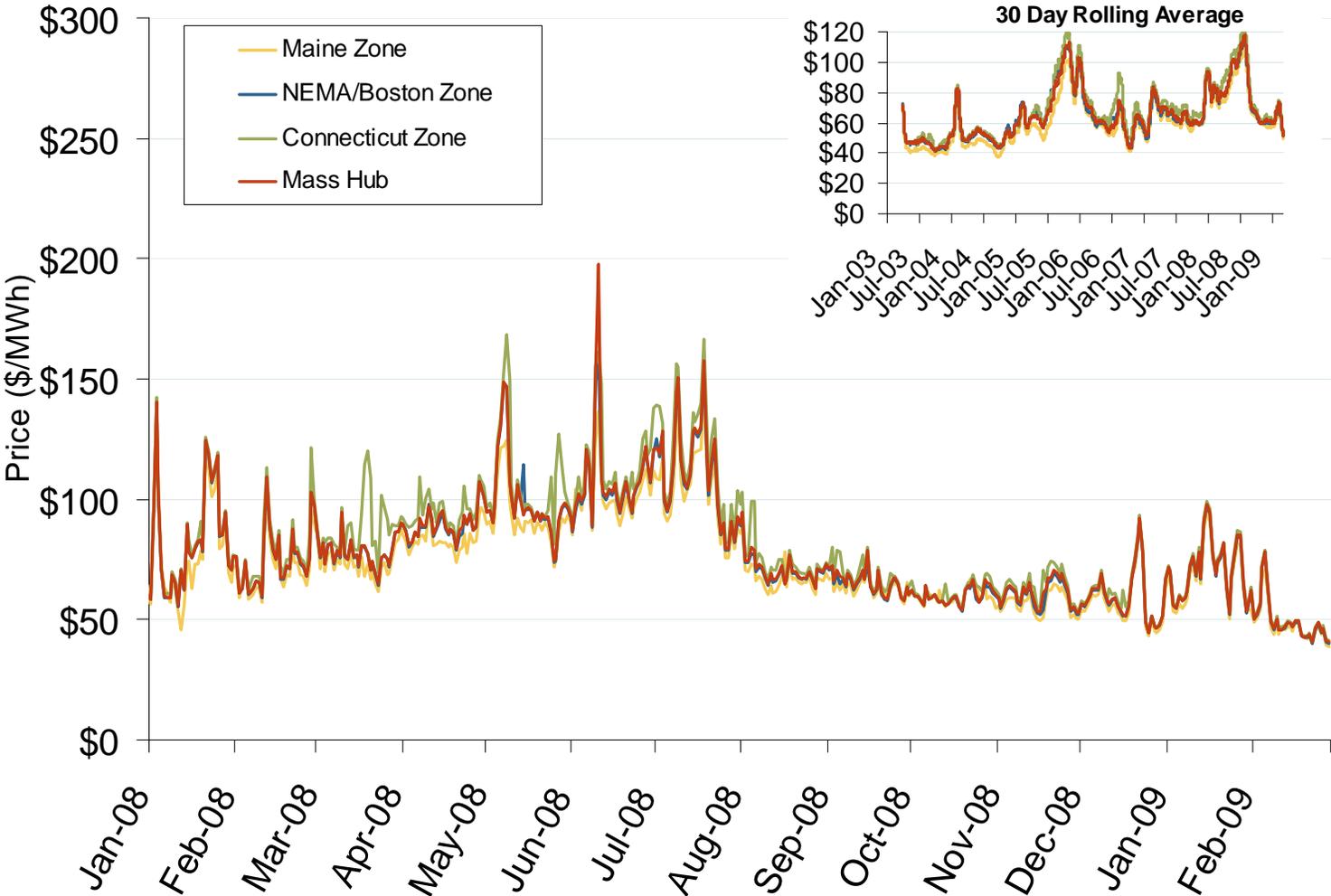
# Daily Average of ISO-NE Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

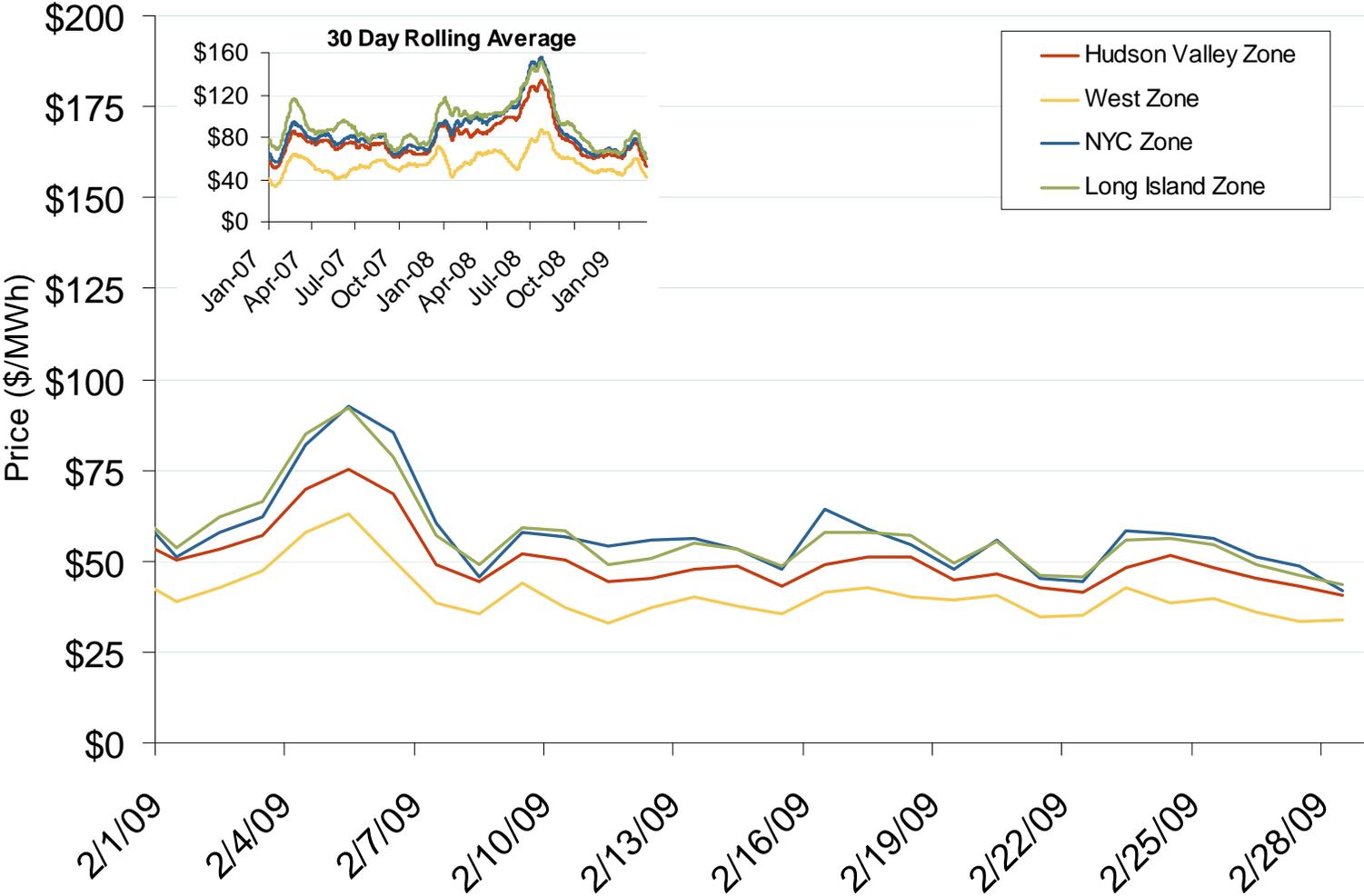
# Daily Average of ISO-NE Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg. March 2009 Northeast Snapshot Report

Updated March 9, 2009

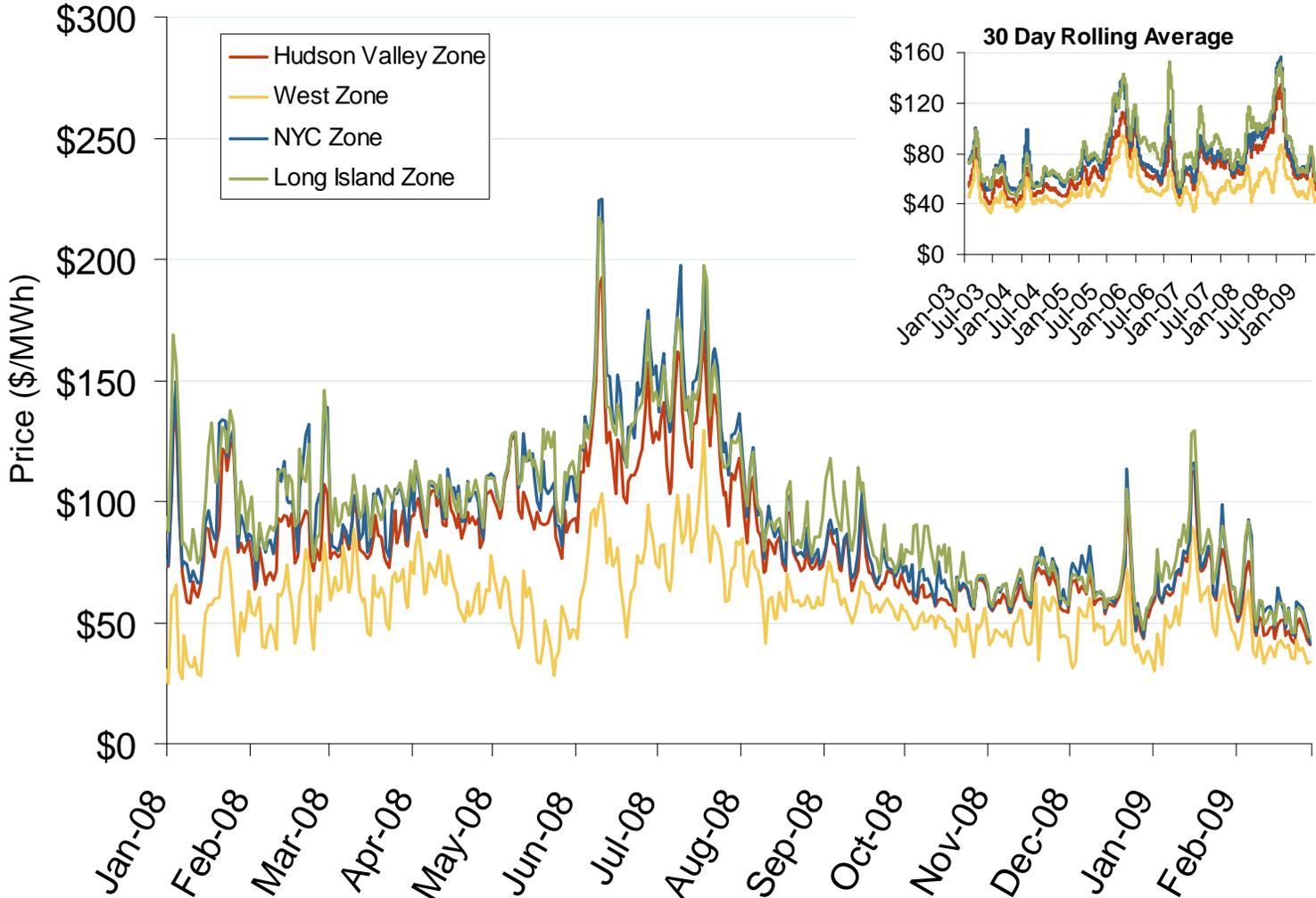
# Daily Average of NYISO Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from NYISO data as reported by Bloomberg. March 2009 Northeast Snapshot Report

Updated March 9, 2009

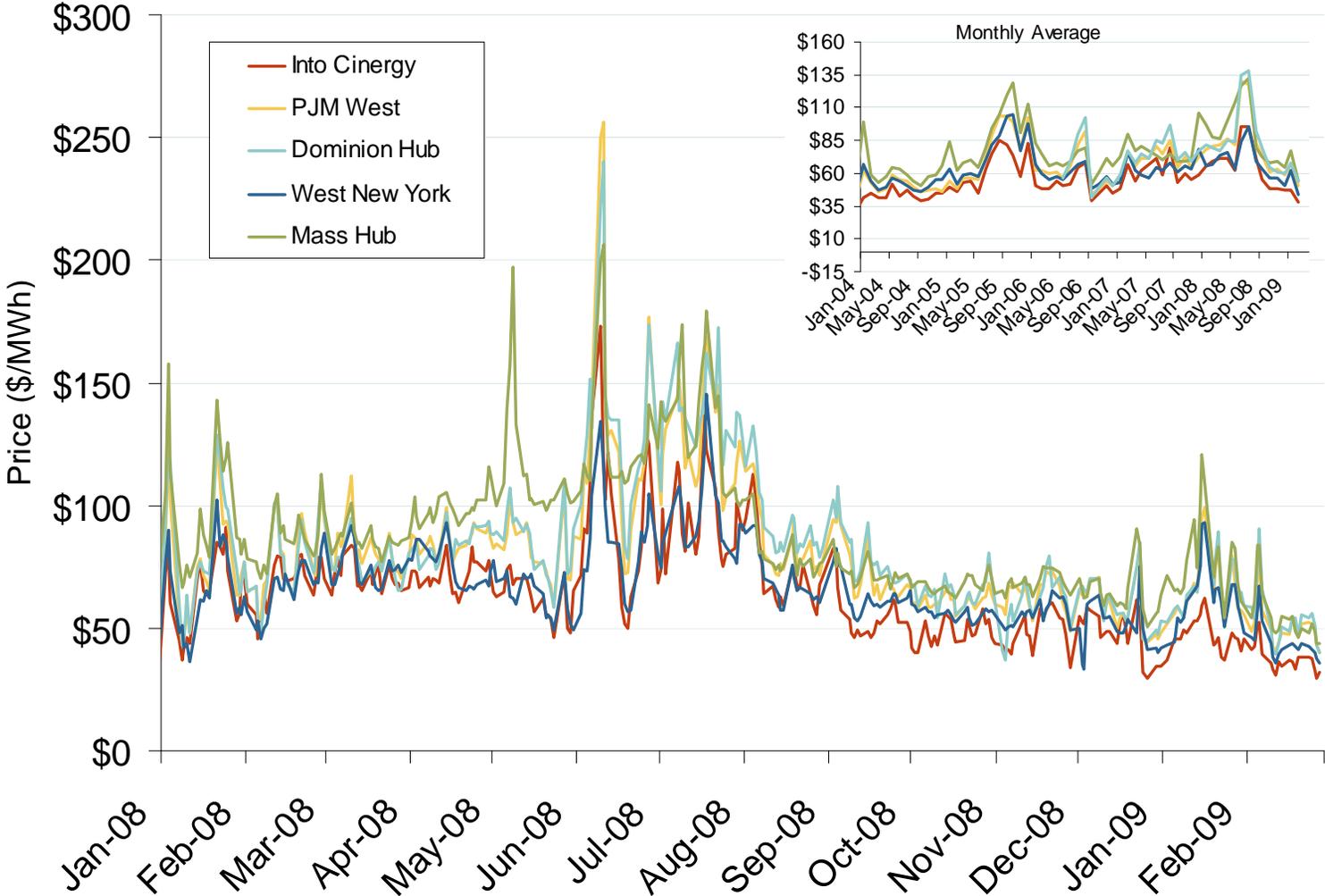
# Daily Average of NYISO Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from NYISO data as reported by Bloomberg. March 2009 Northeast Snapshot Report

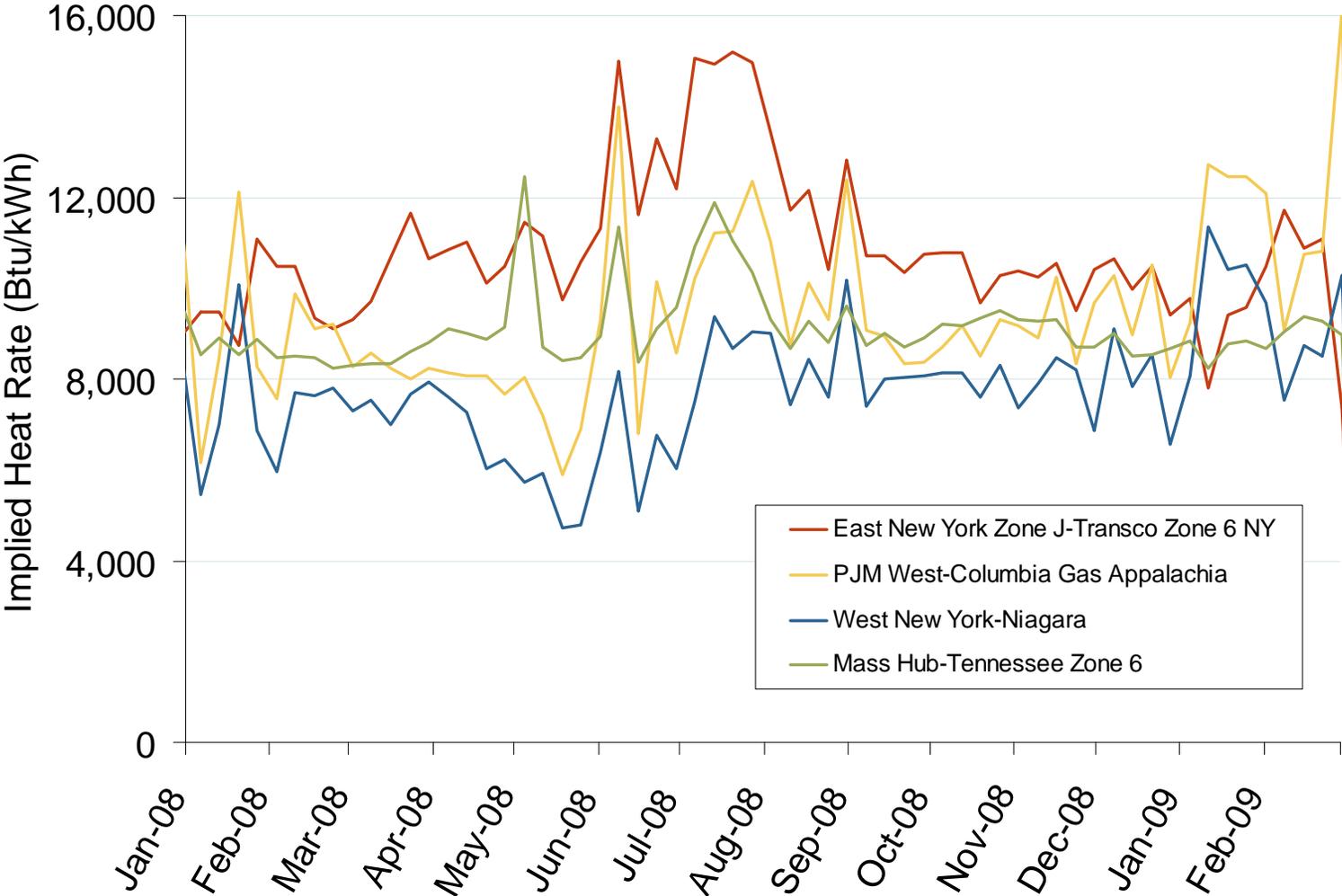
Updated March 9, 2009

# Eastern Daily Bilateral Day-Ahead On-Peak Prices



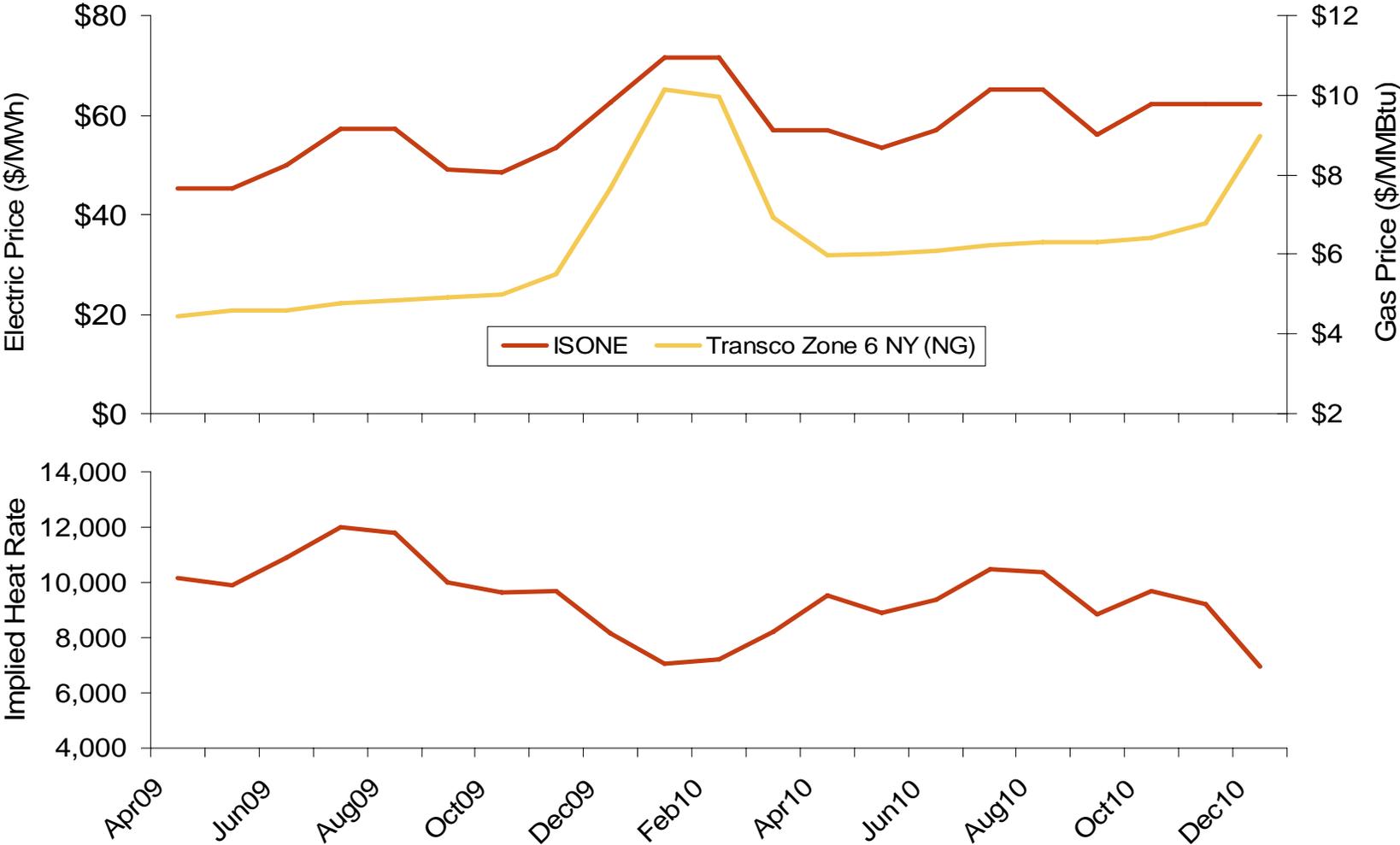
Source: Derived from *Platts* data.  
March 2009 Northeast Snapshot Report

# Implied Heat Rates at Eastern Trading Points Weekly Averages



Source: Derived from *Platts* data  
March 2009 Northeast Snapshot Report

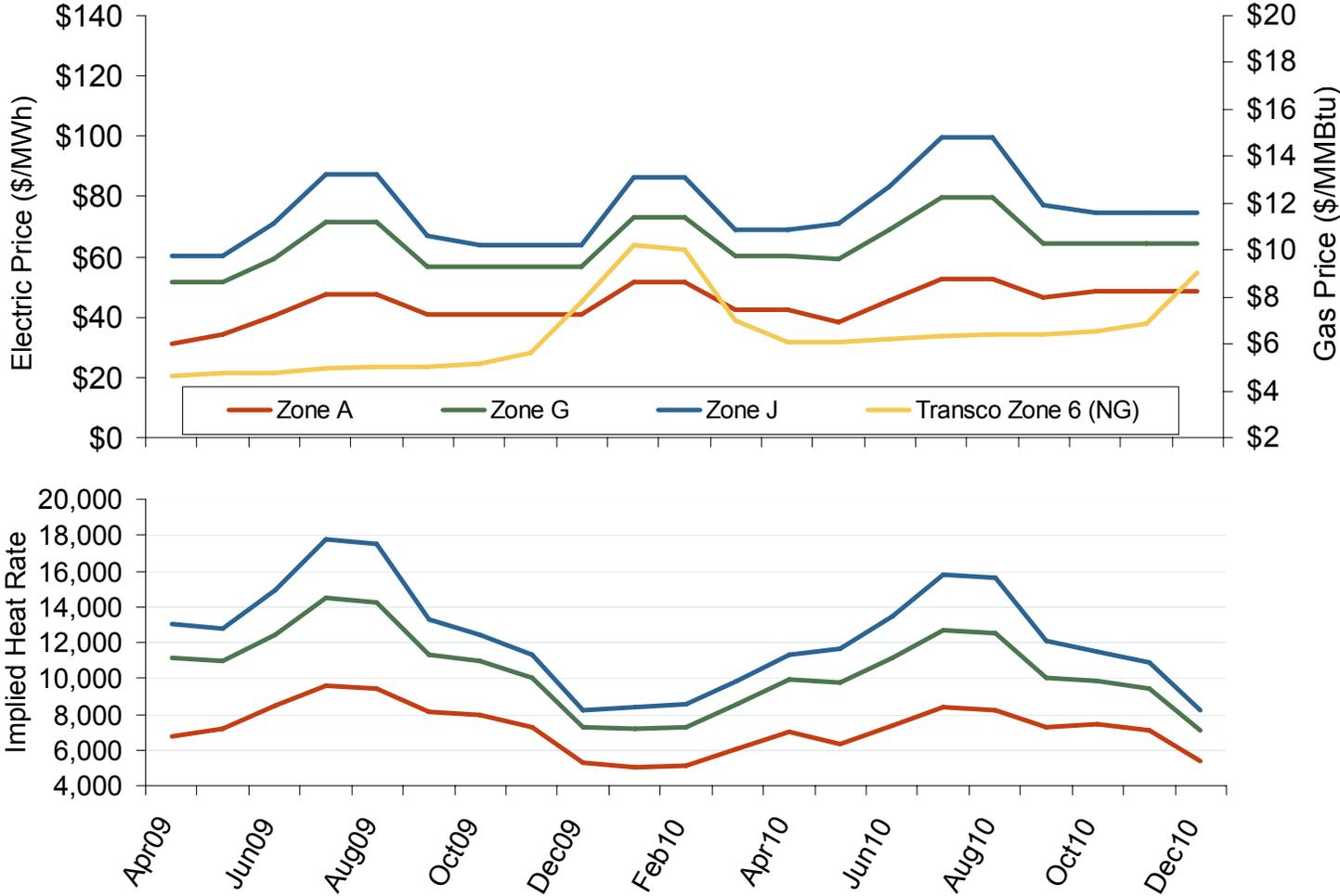
# New England Electric Forward Price Curve and Implied Heat Rate



Source: Derived from Nymex data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

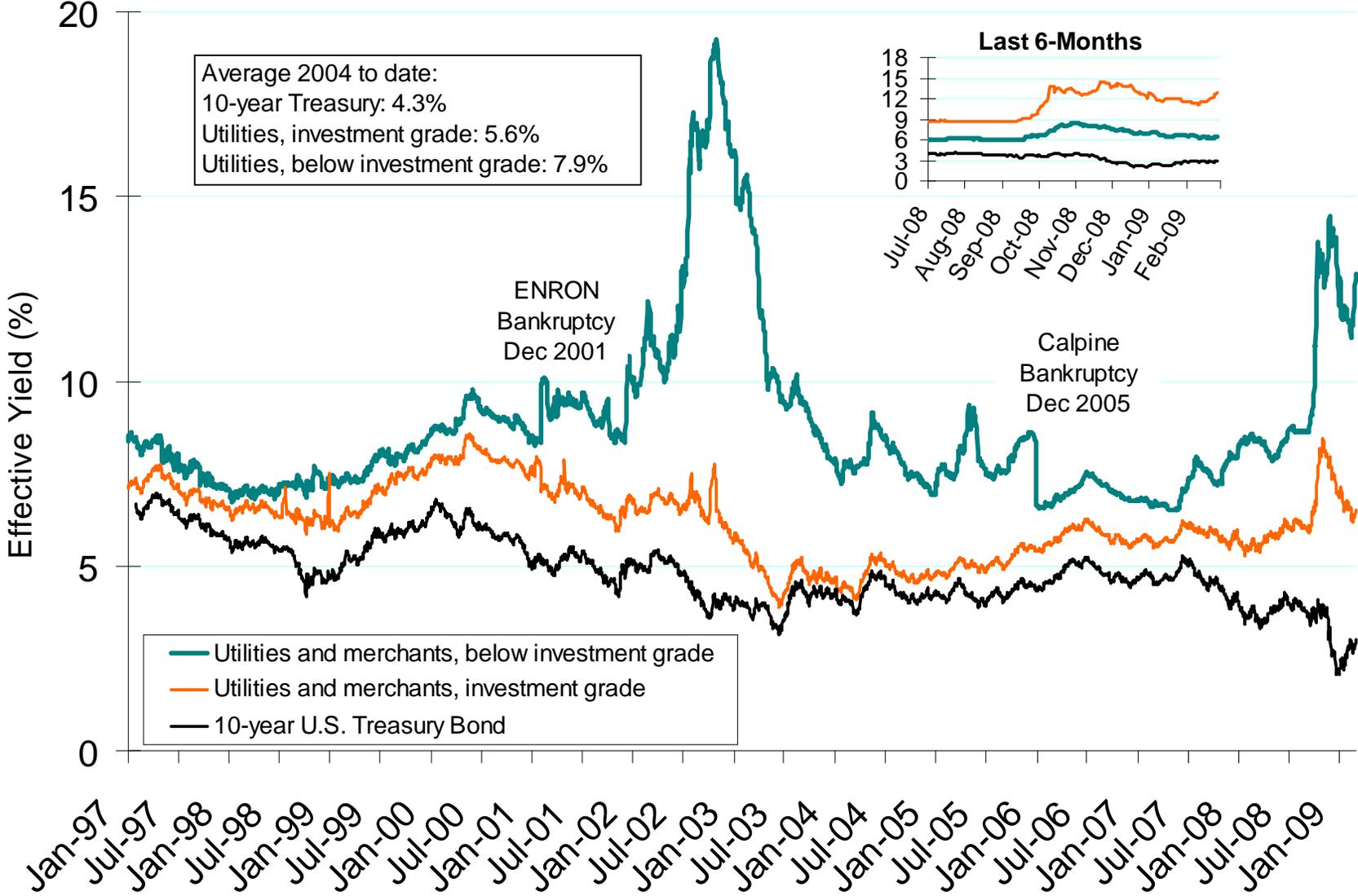
# New York Electric Forward Price Curves and Implied Heat Rates



Source: Derived from Nymex data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

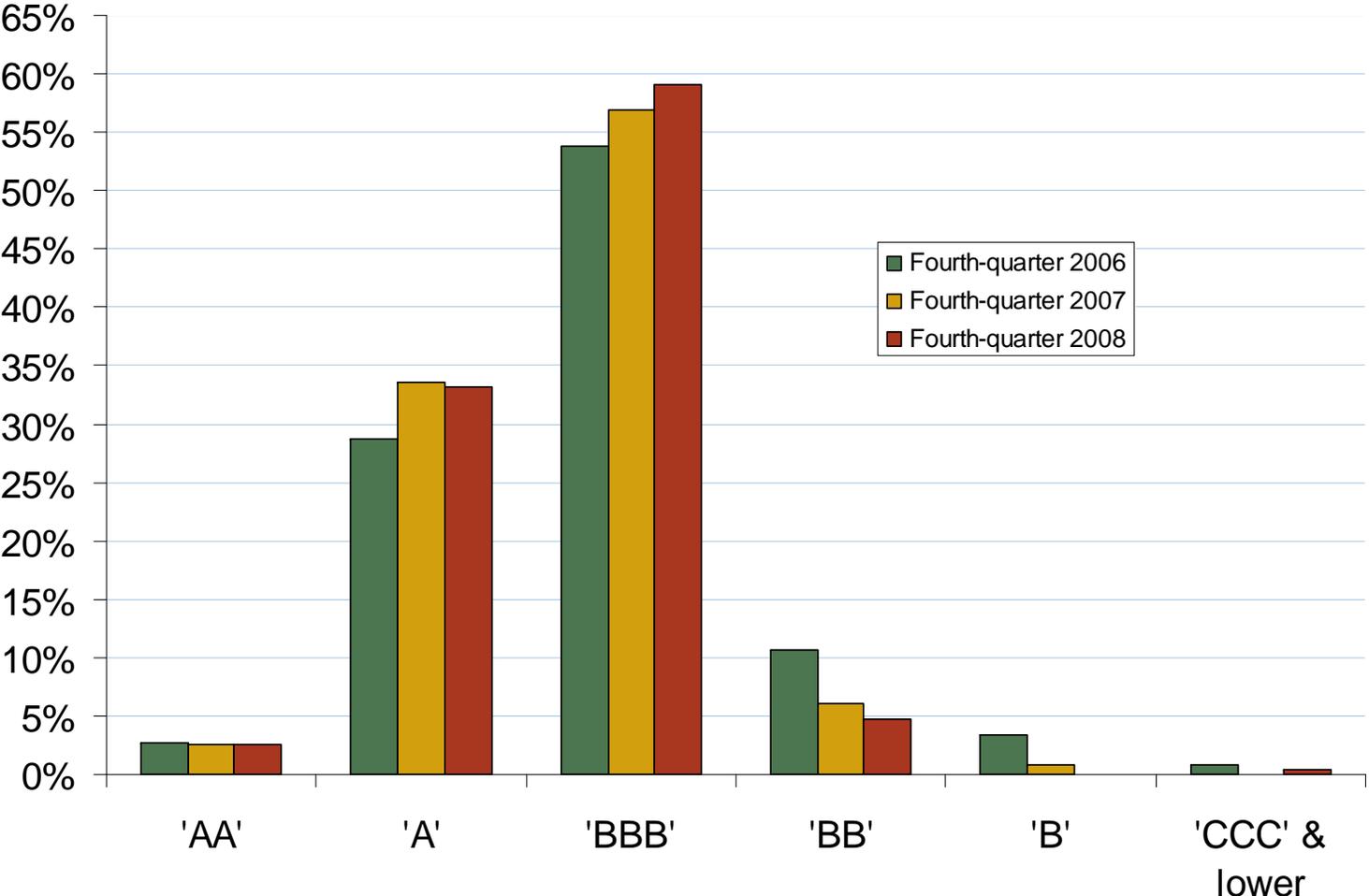
### Yields of Utilities, Merchants and Ten Year Treasury Bonds



Source: Derived from Merrill Lynch Index U.S Corporates, Gas and Electric Utilities and Bloomberg data.  
March 2009 Northeast Snapshot Report

Updated March 9, 2009

### U.S. Electric and Gas Utility Ratings Distribution



Source: Derived from Standard and Poors data.  
March 2009 Northeast Snapshot Report