OE ENERGY MARKET SNAPSHOT

National Version – February 2009 Data

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

Office of Enforcement
Federal Energy Regulatory Commission
March 2009

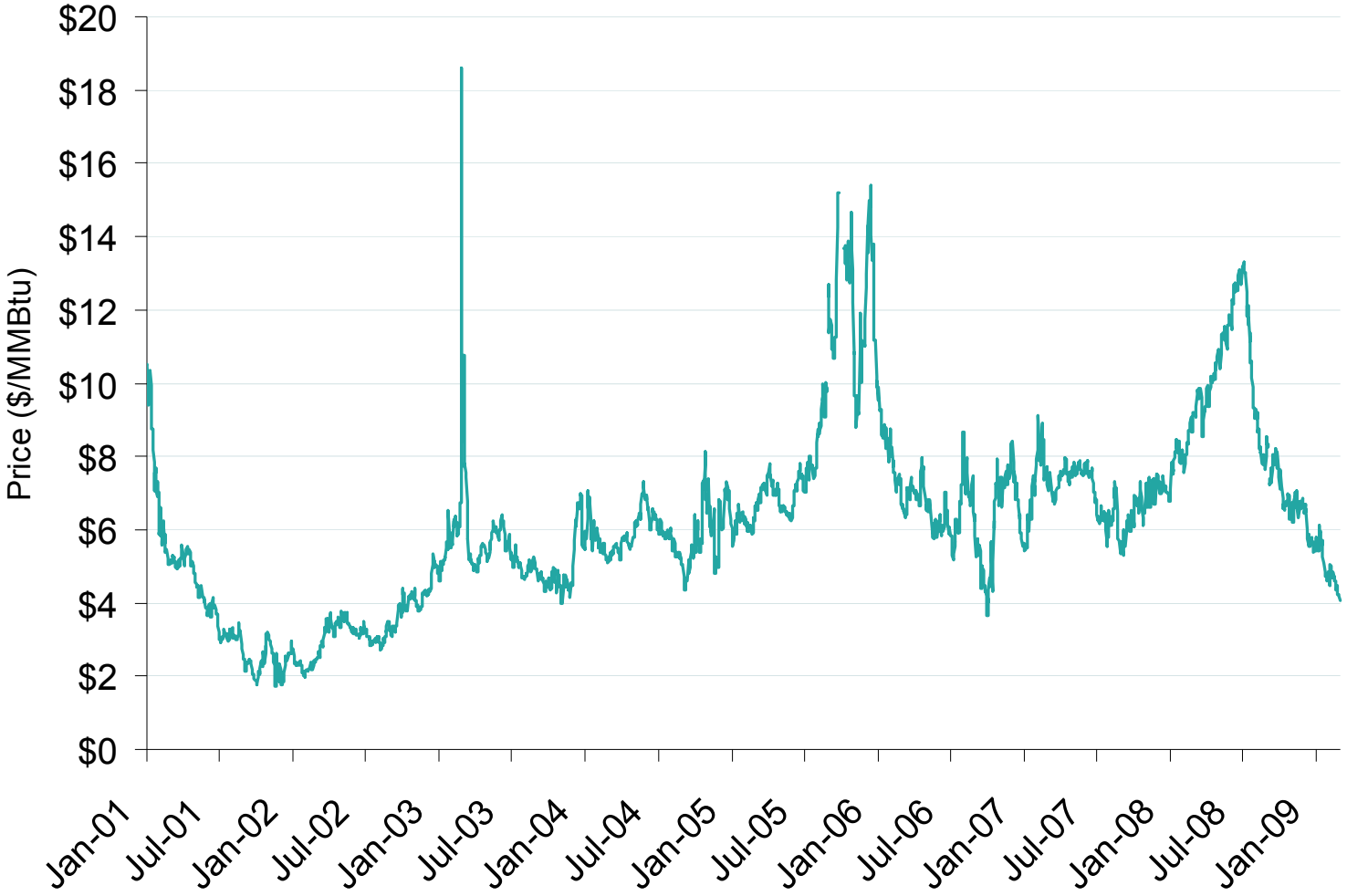
Special Report:

- **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

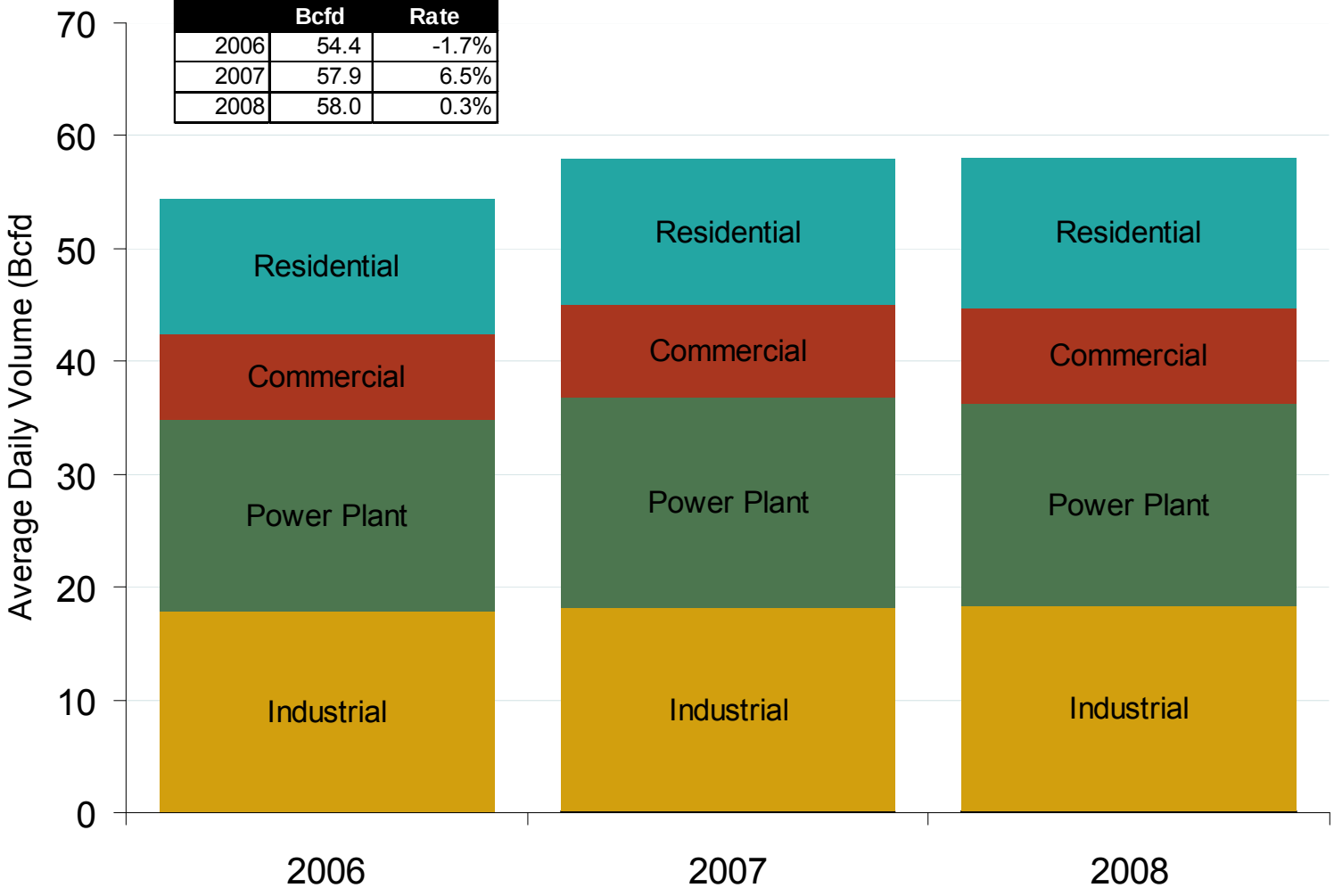


Source: Derived from *Platts* data.

Updated March 9, 2009

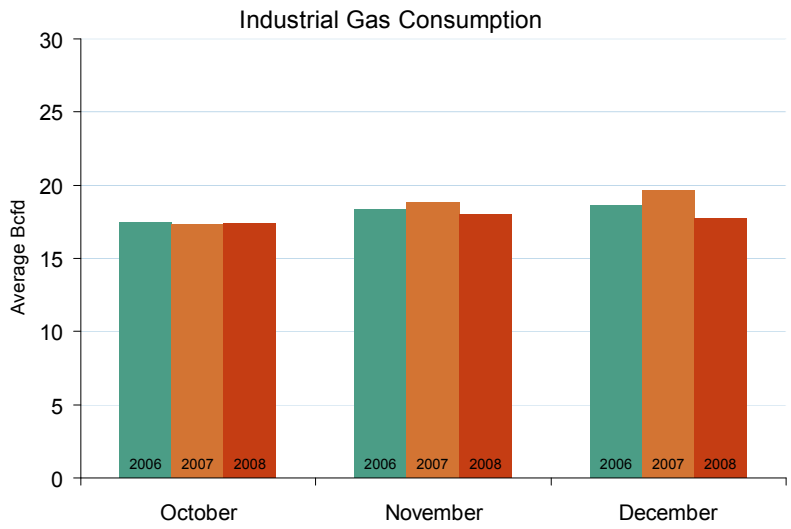
U.S. Natural Gas Consumption – Lower 48 States

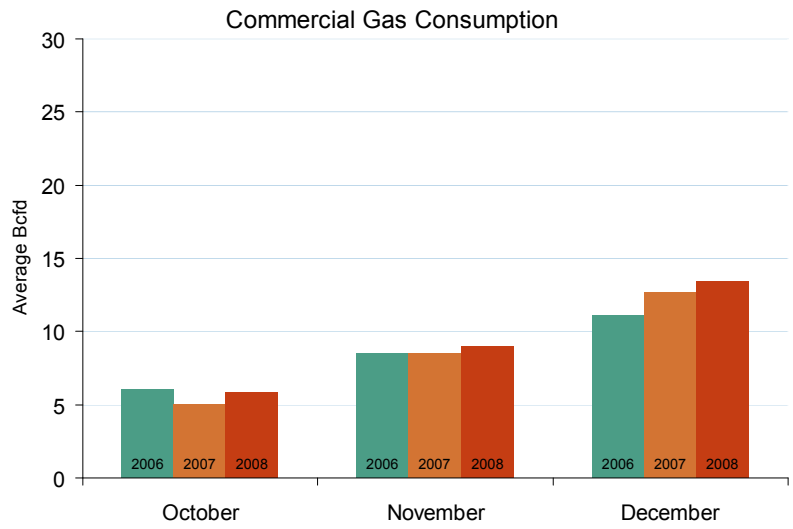
	Total Bcfd	Growth Rate
2006	54.4	-1.7%
2007	57.9	6.5%
2008	58.0	0.3%

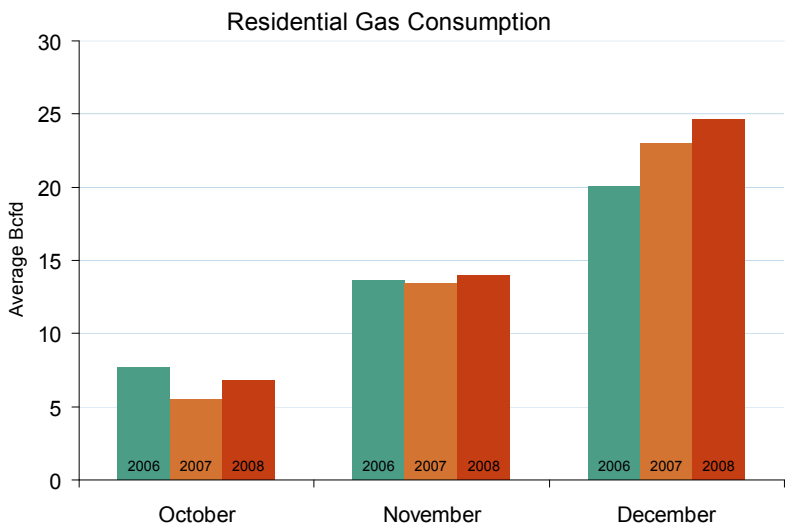


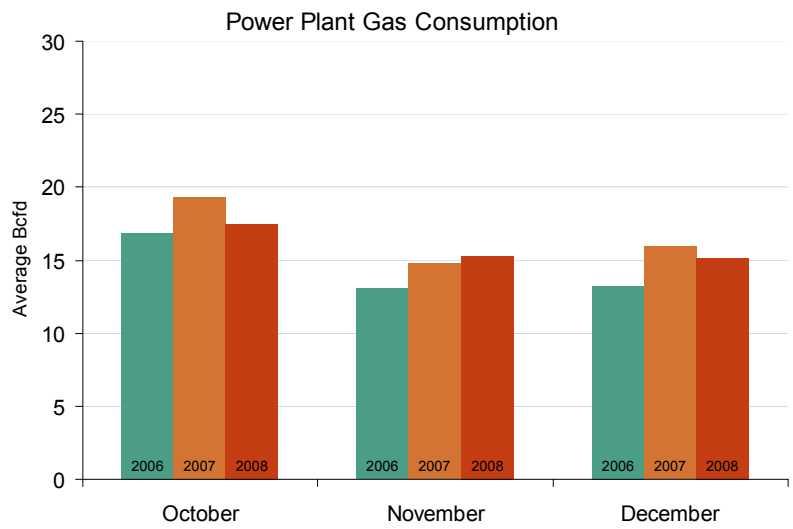
Source: Derived from EIA data.

U.S. Natural Gas Consumption



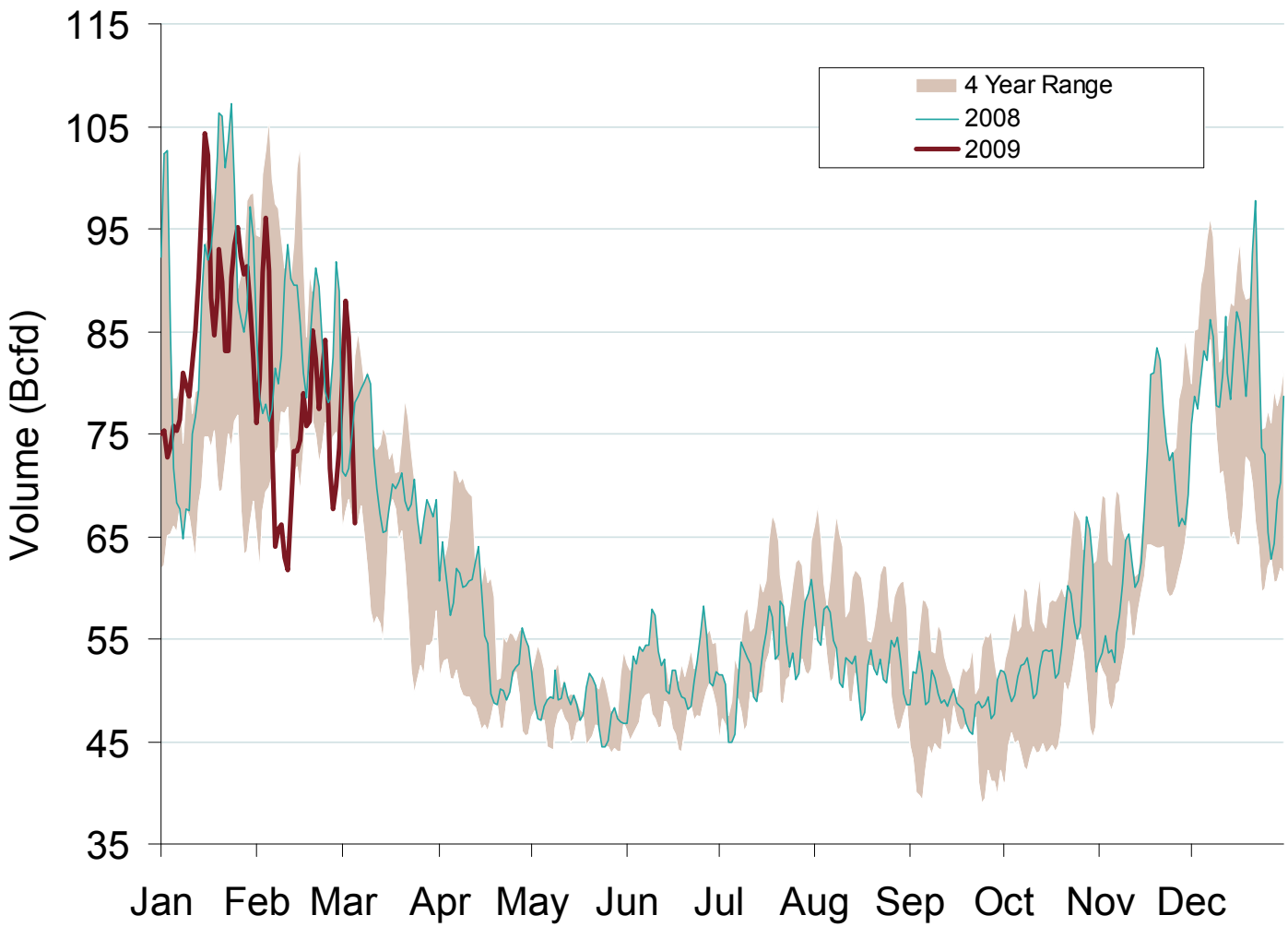






Source: Derived from EIA data. Lower 48 Only.

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

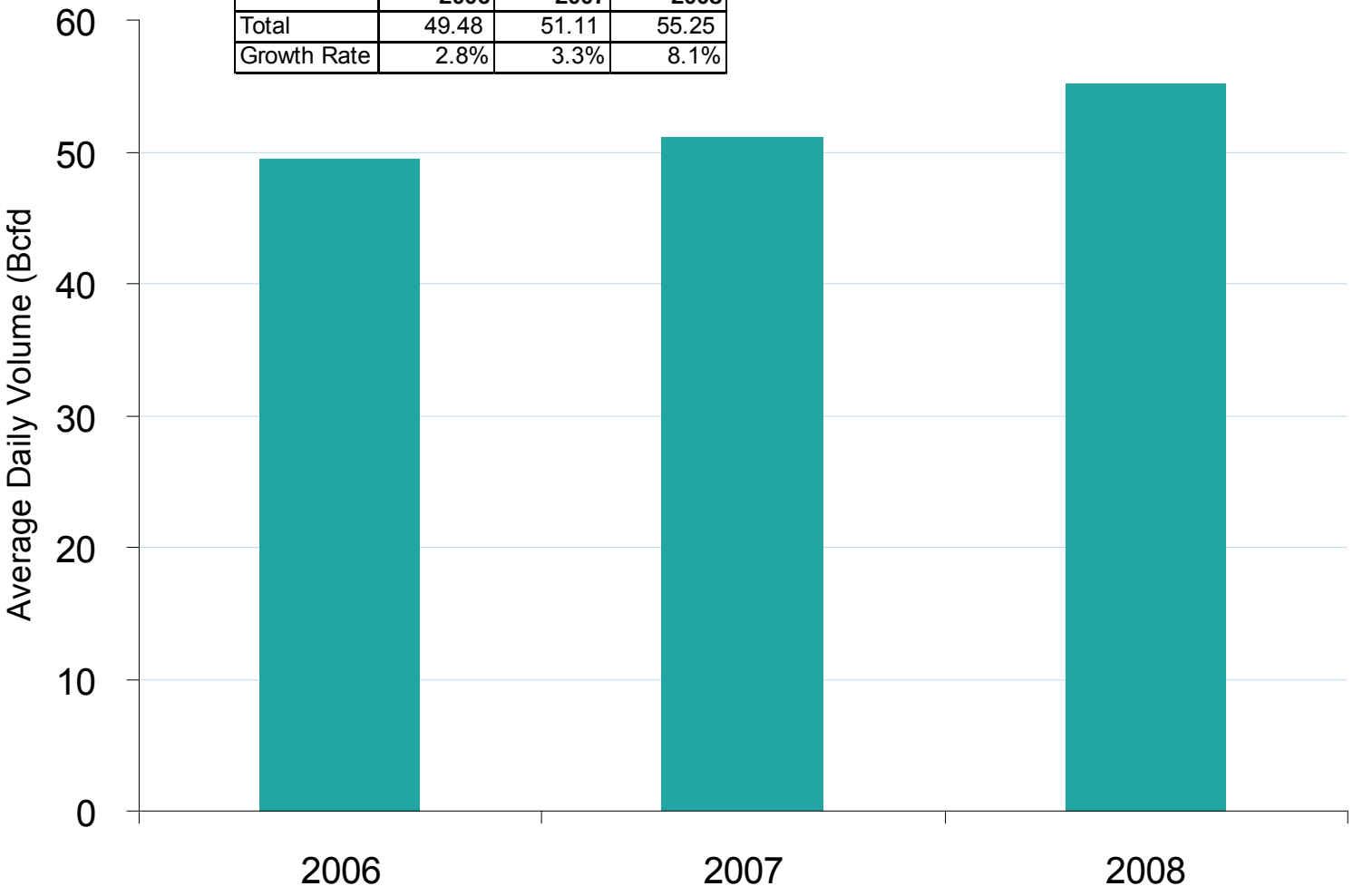


Source: Derived from *Bentek Energy* data.

Updated March 9, 2009

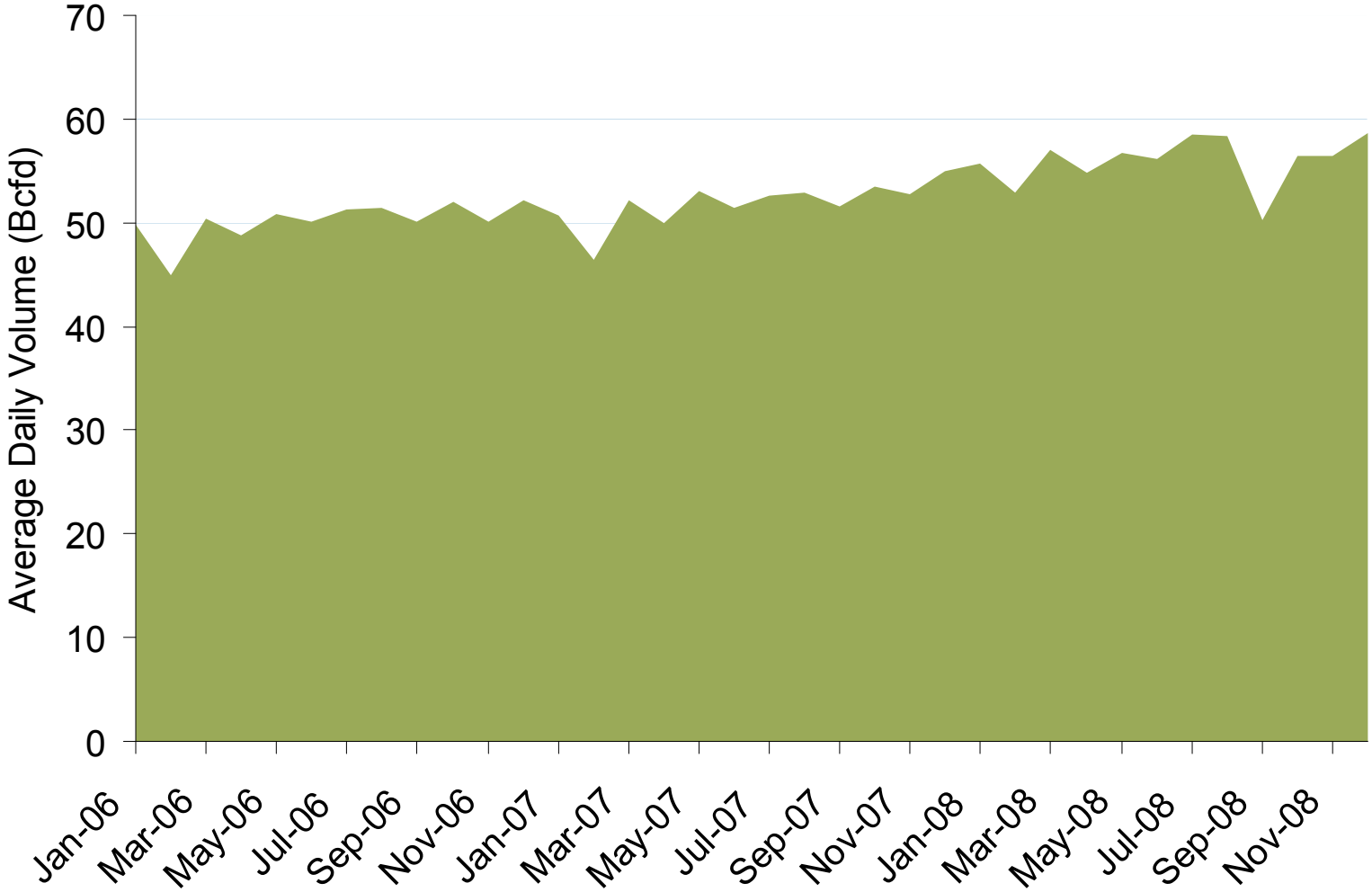
U.S. Dry Gas Production – Lower 48 States

Annual L48 Gas Production (Average Bcfd)			
	2006	2007	2008
Total	49.48	51.11	55.25
Growth Rate	2.8%	3.3%	8.1%



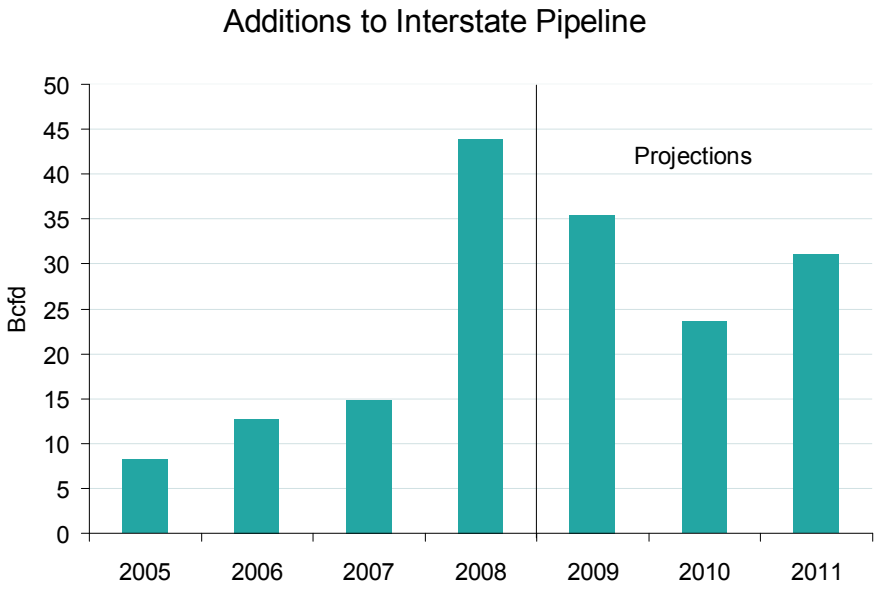
Source: Derived from EIA data.

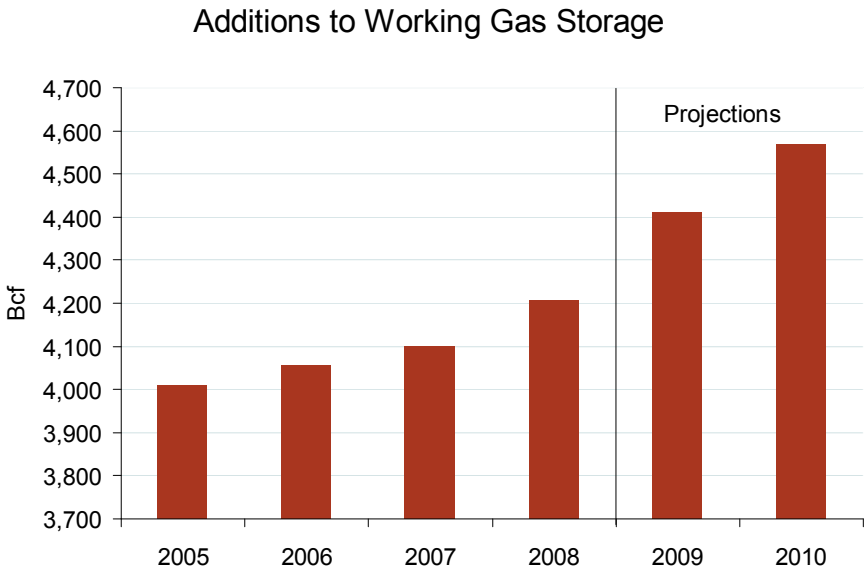
US Gas Production Shows Robust Growth



Source: Derived from EIA, *Monthly Energy Review*. Lower 48 Only.

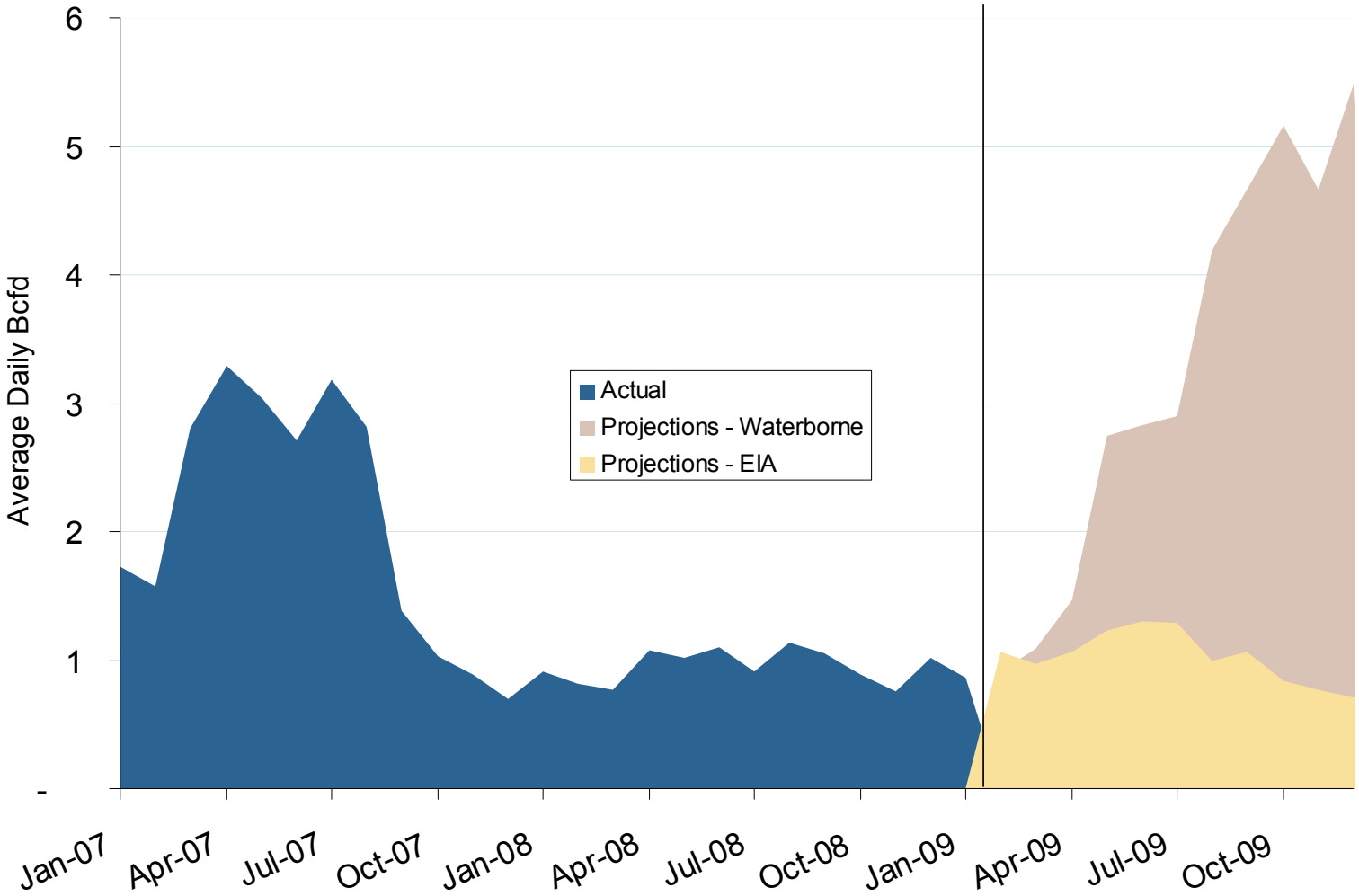
U.S. Natural Gas Infrastructure Additions
Pipeline and Storage Capacity Expected to Rise





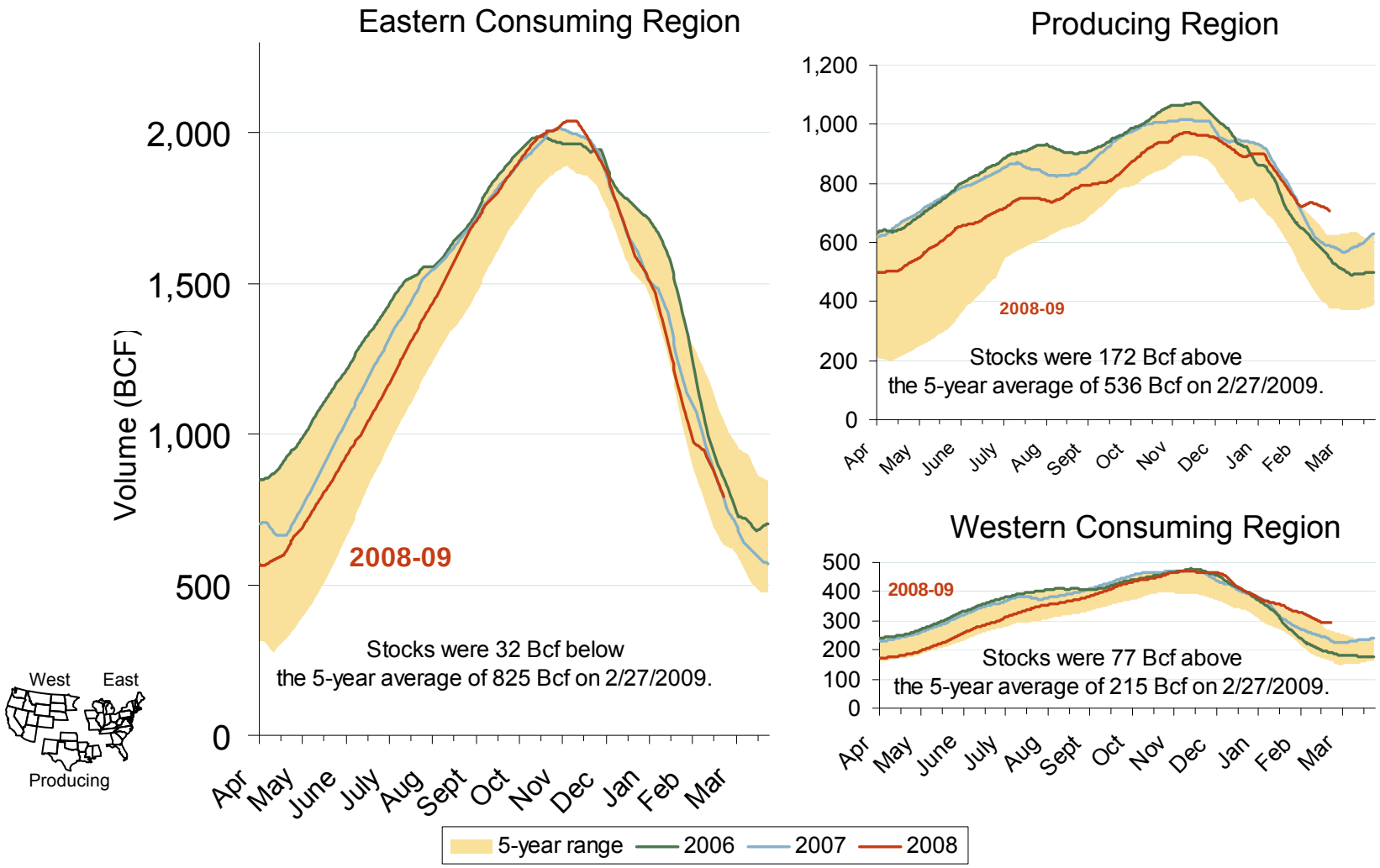
Source: Derived from *EIA Natural Gas Update - Natural Gas Subcommittee NARUC Winter Meeting Feb 15 2009*

Analyst Projections for Increased LNG Imports



Source: Derived from EIA STEO and *Waterborne LNG* data.

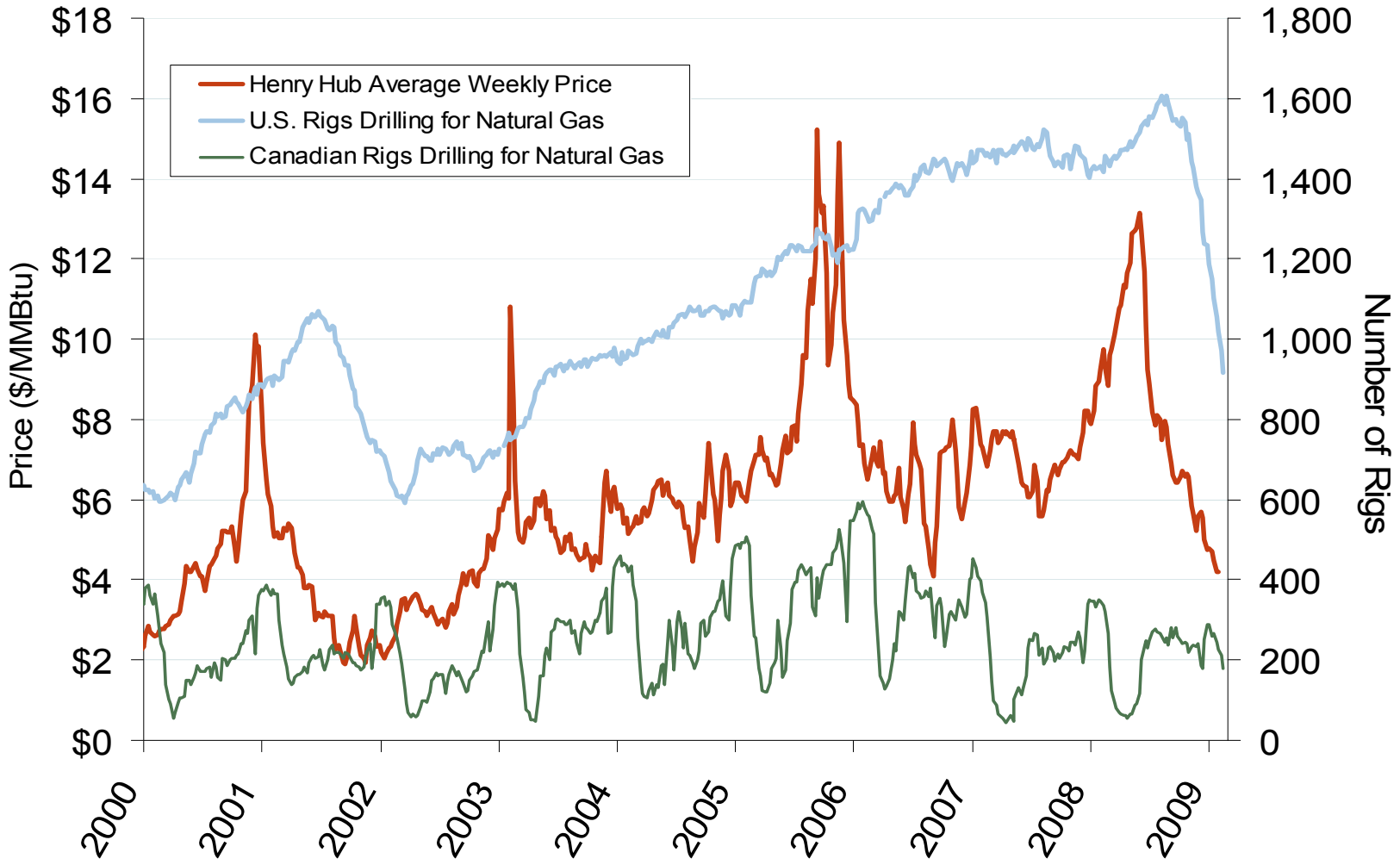
Regional Totals of Working Gas in Storage



Source: Derived from *EIA* data.

Updated March 9, 2009

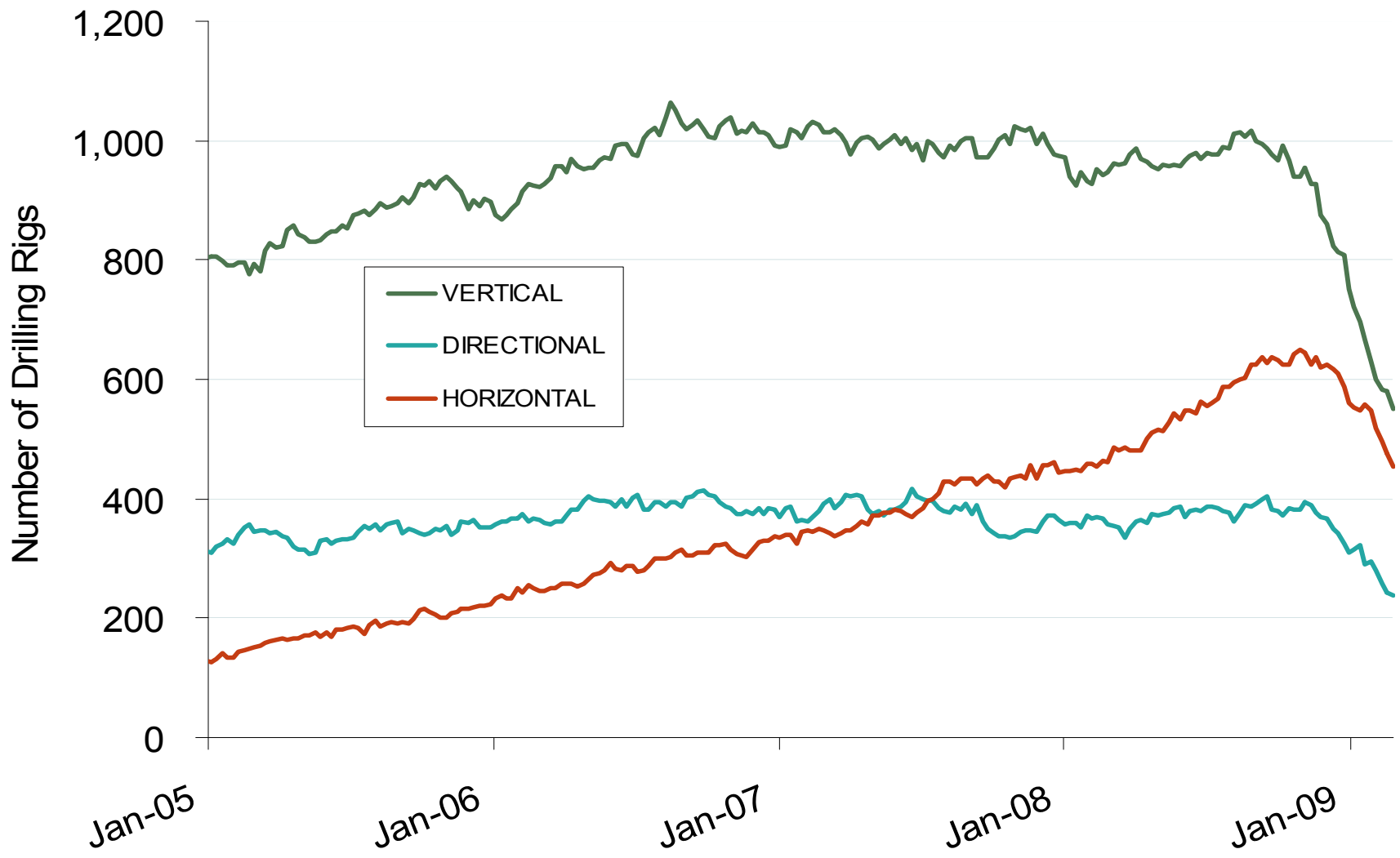
U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



Source: Derived from *Platts* and *Baker Hughes* data.

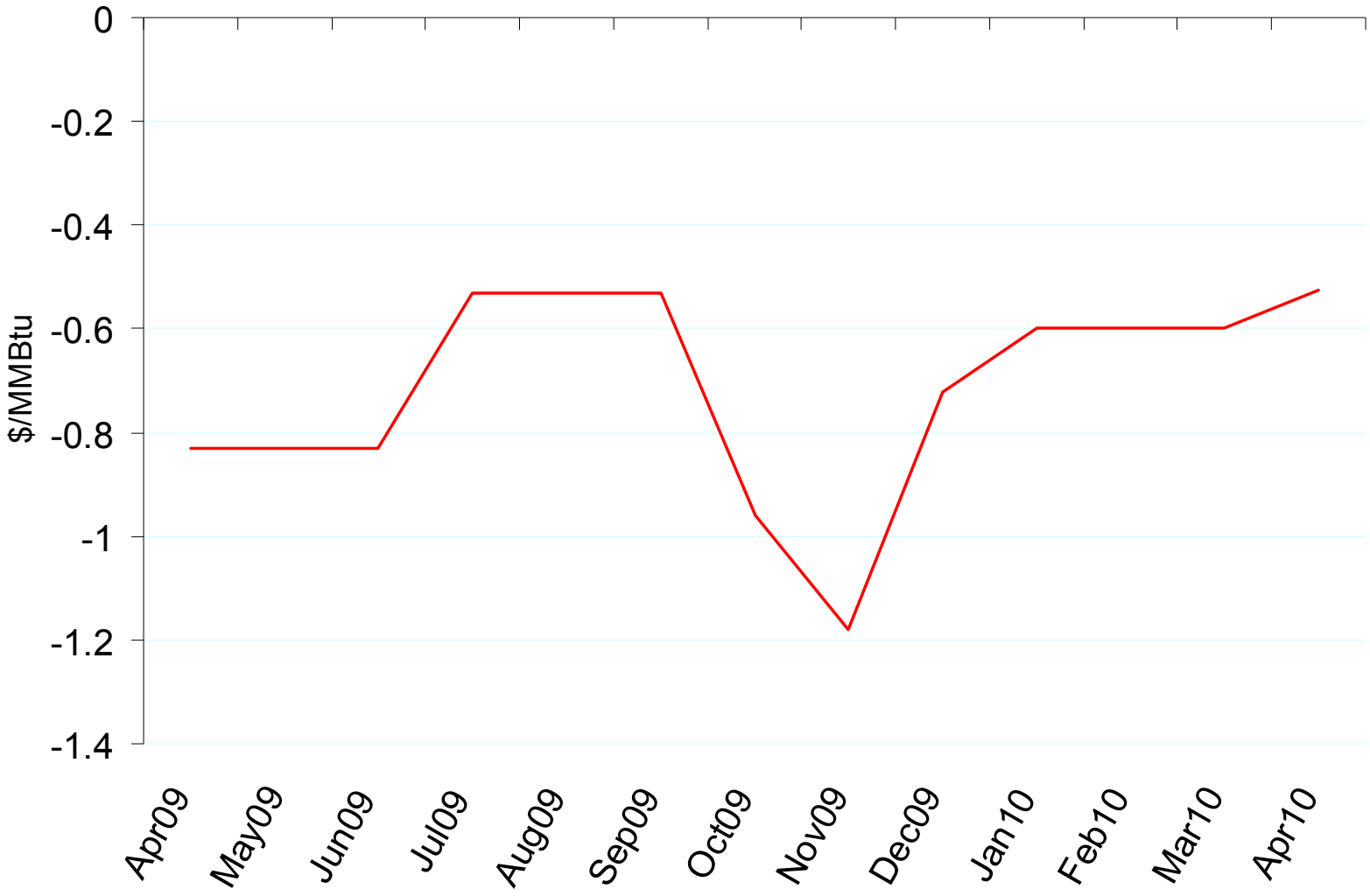
Updated March 9, 2009

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



Source: Derived from *Baker Hughes* data.

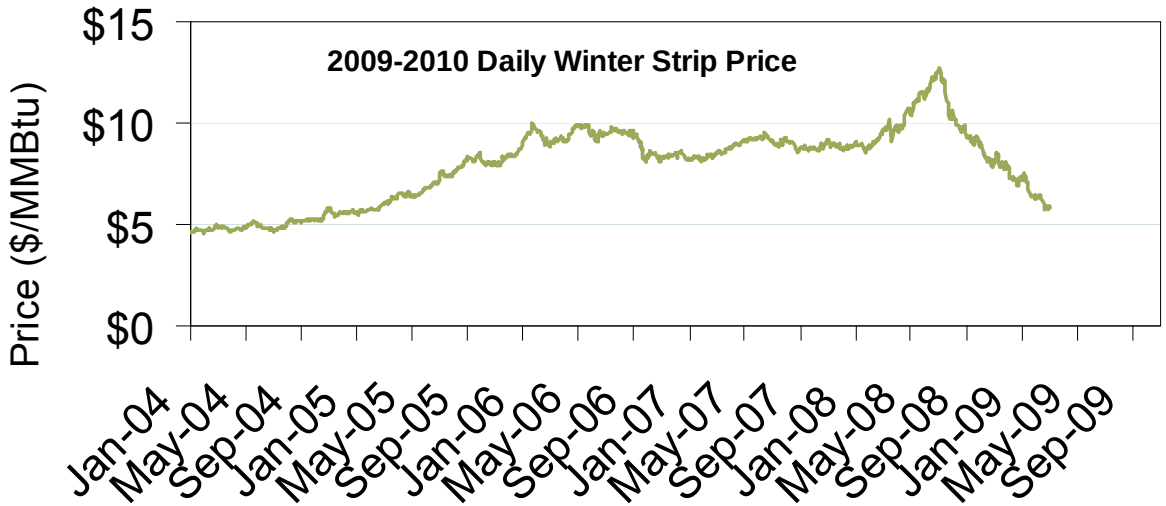
SoCal Border Forward Basis Swap

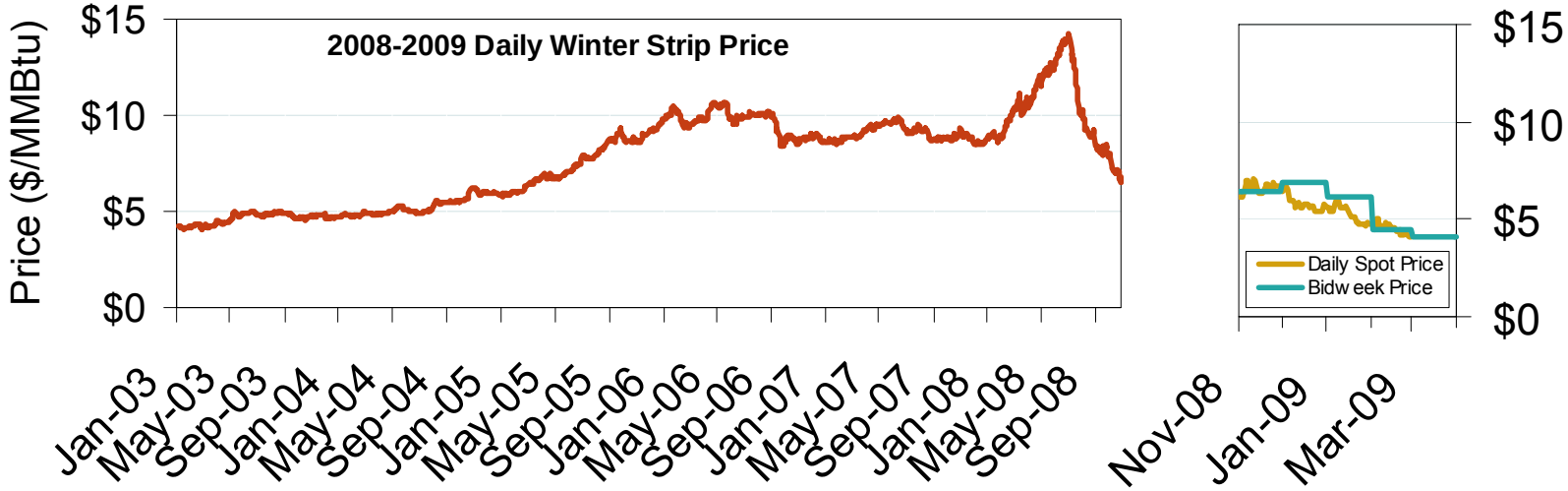


Source: Derived from *Bloomberg* data.

Updated March 9, 2009

Natural Gas Winter Futures Strip - Henry Hub





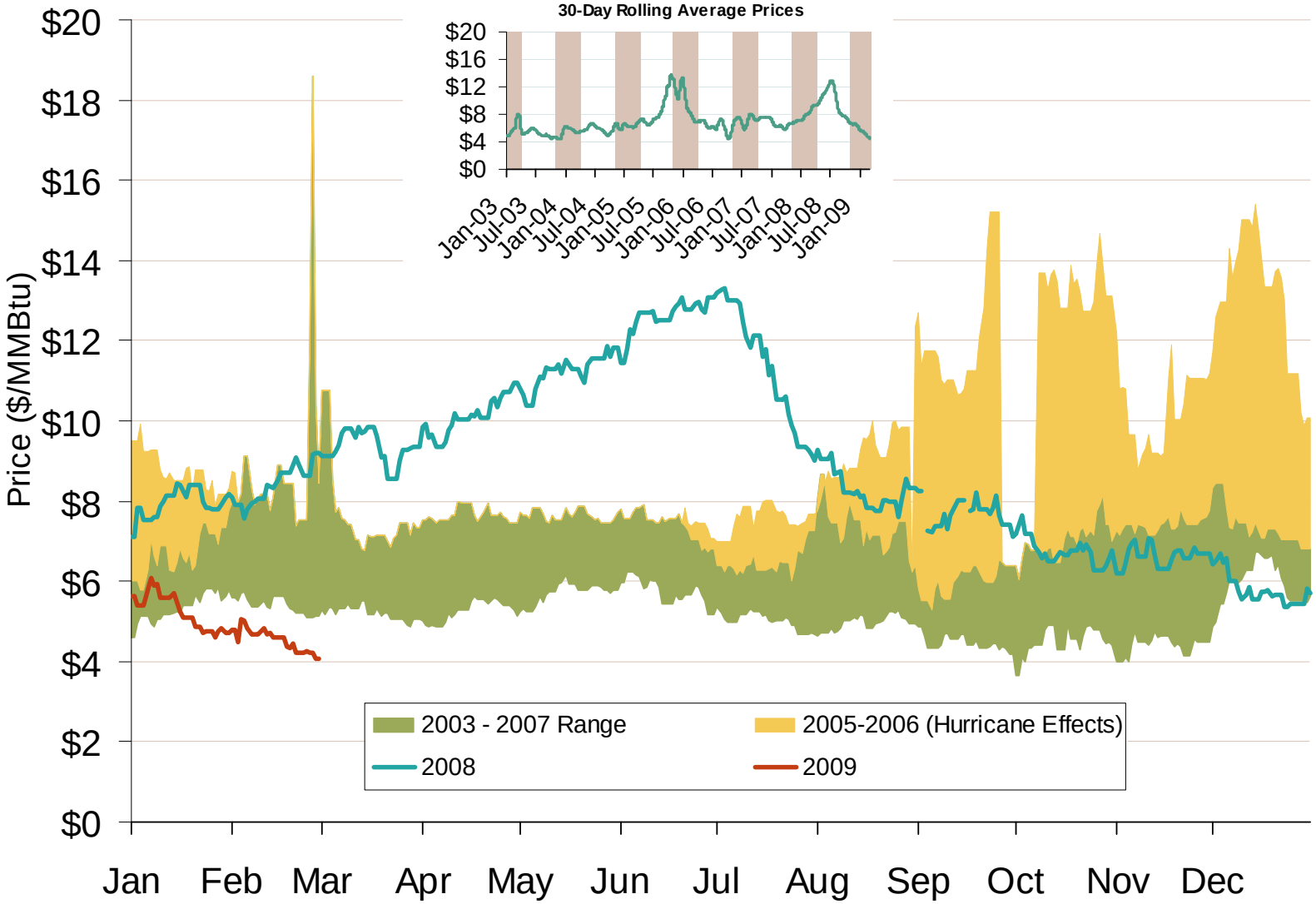
Source: Derived from EIA, *Monthly Energy Review*.

Natural Gas and Fuel Markets

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

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

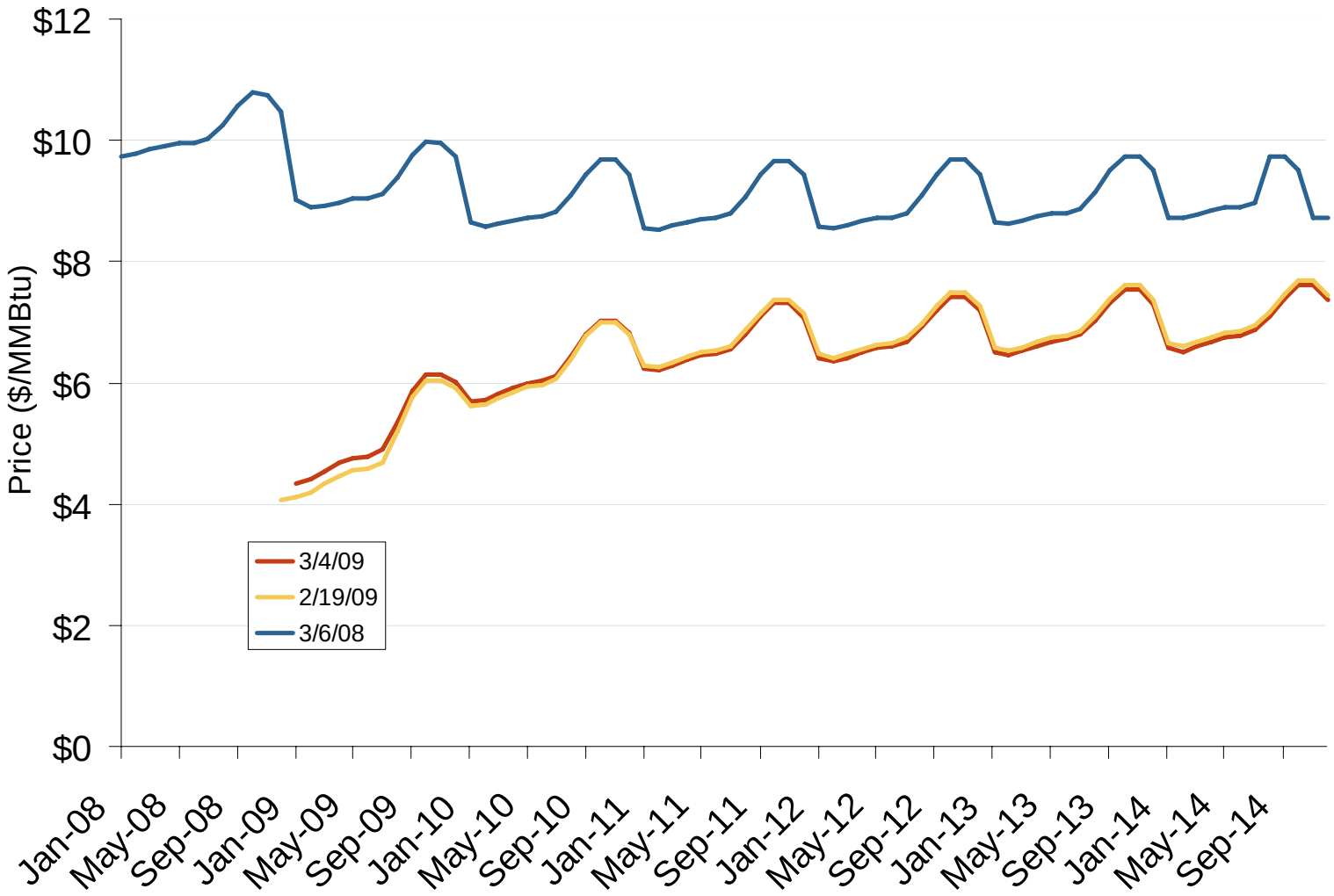
Henry Hub Natural Gas Daily Spot Prices 2008, 2009 and 2003-2007 Year Range



Source: Derived from *Platts* data.

Updated March 9, 2009

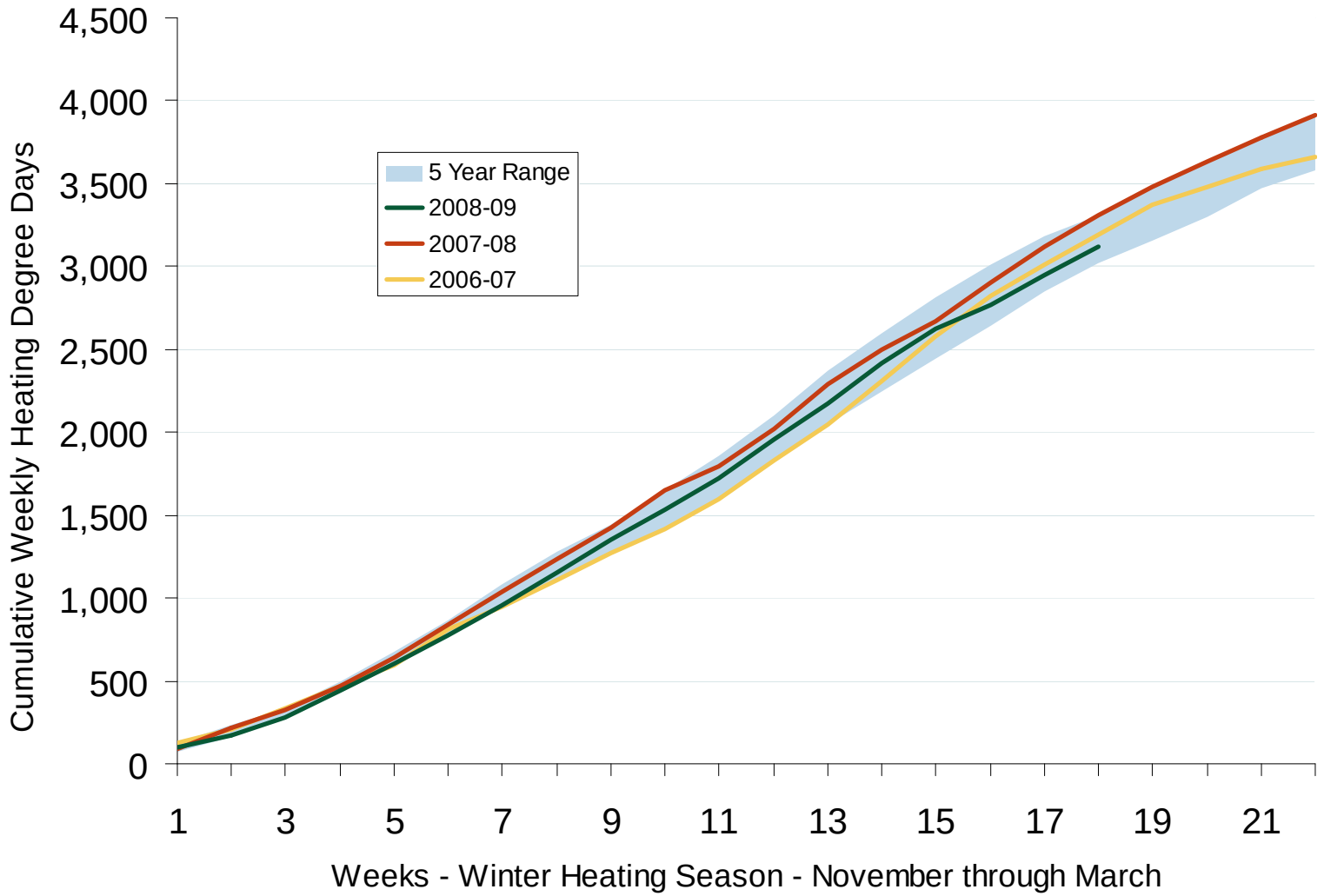
NYMEX Natural Gas Forward Price Curve



Source: Derived from *NYMEX* data.

Updated March 9, 2009

U. S. Winter Cumulative Heating Degree Days

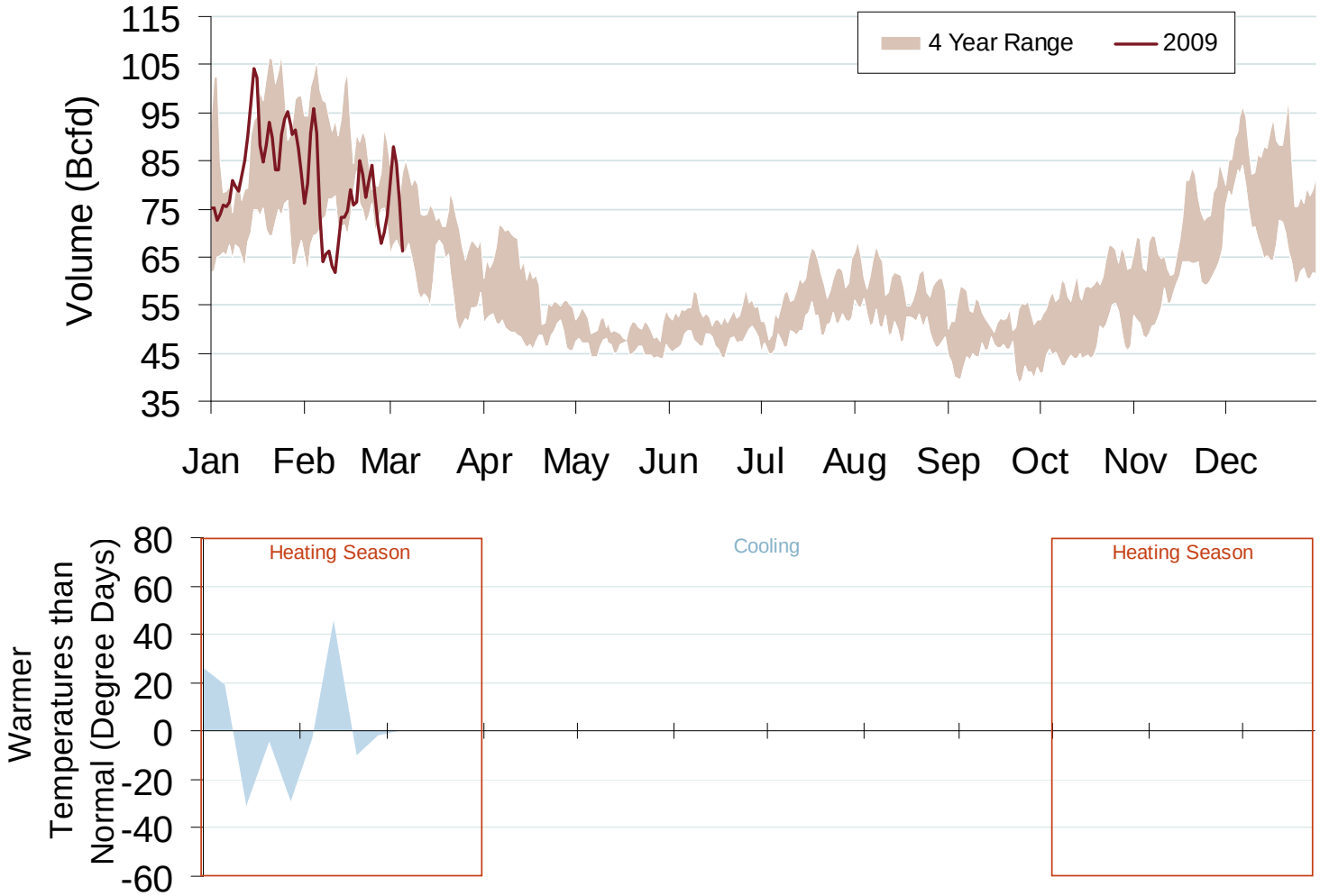


Source: Derived from *NOAA* data.

March 2009 National Snapshot Report

Updated March 9, 2009

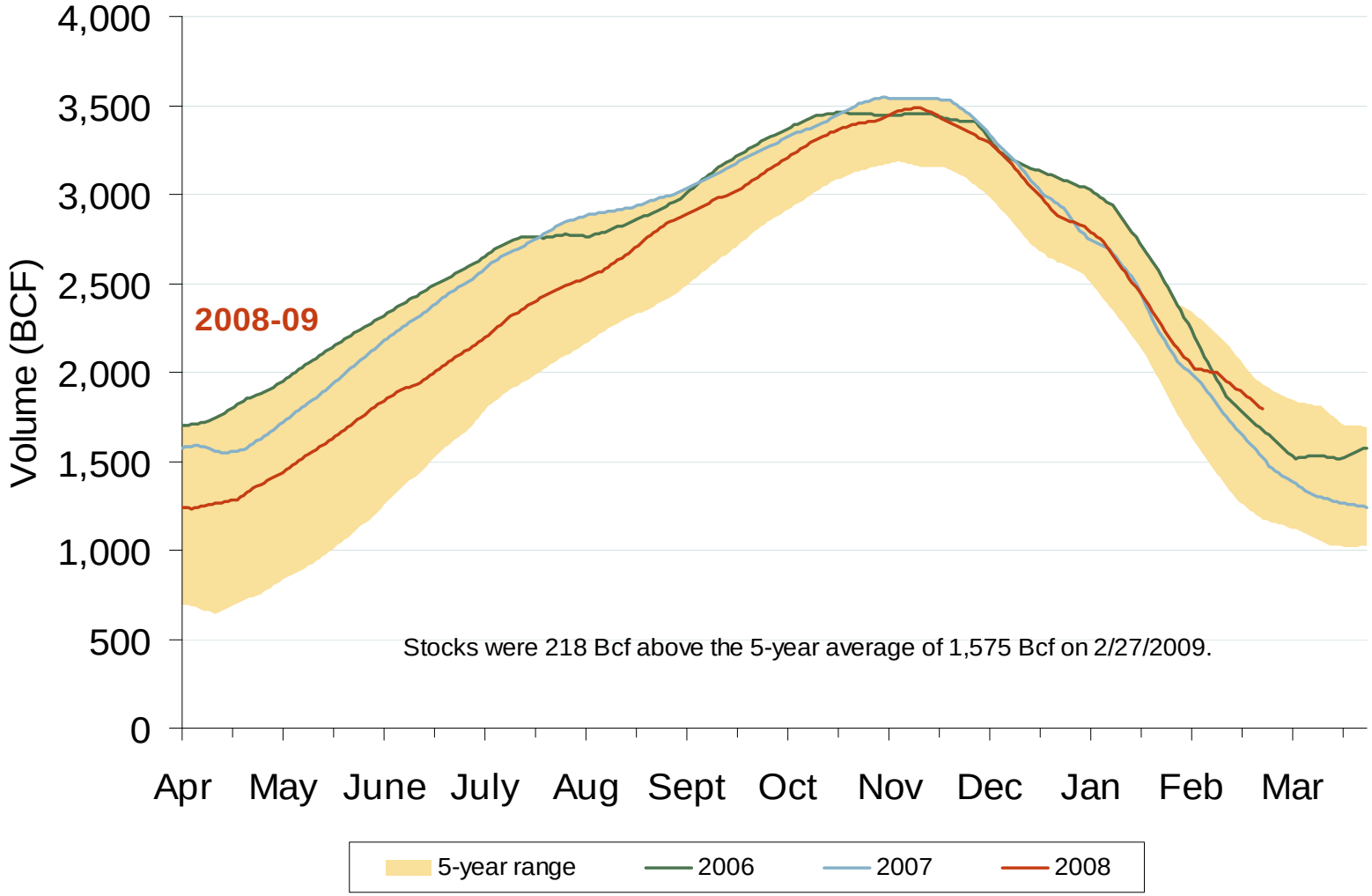
Total U.S. Natural Gas Demand (All Sectors) and Temperatures



Source: Derived from *Bentek Energy* data.

Updated March 9, 2009

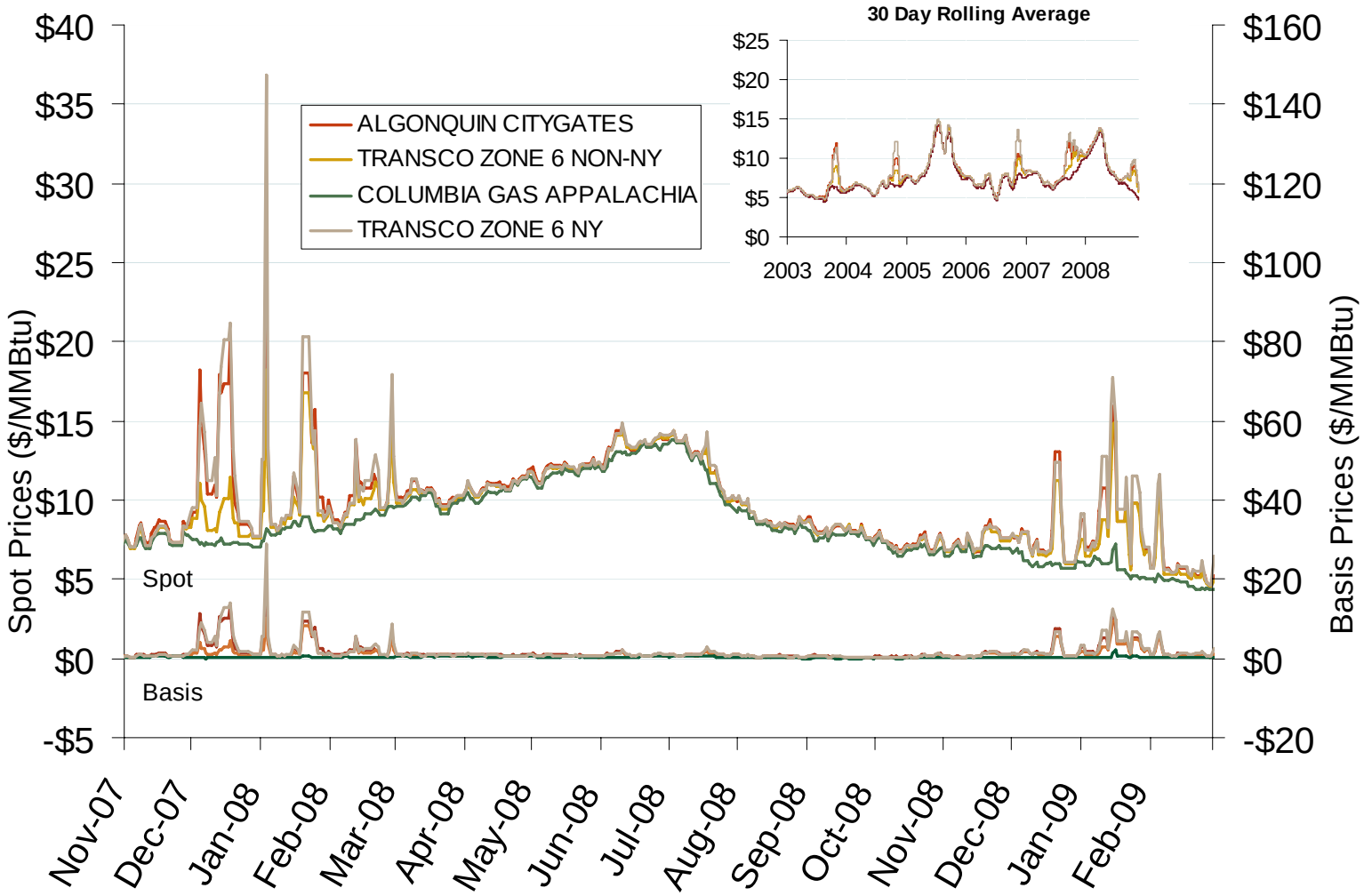
Total U.S. Working Gas in Storage



Source: Derived from *EIA* data.

Updated March 9, 2009

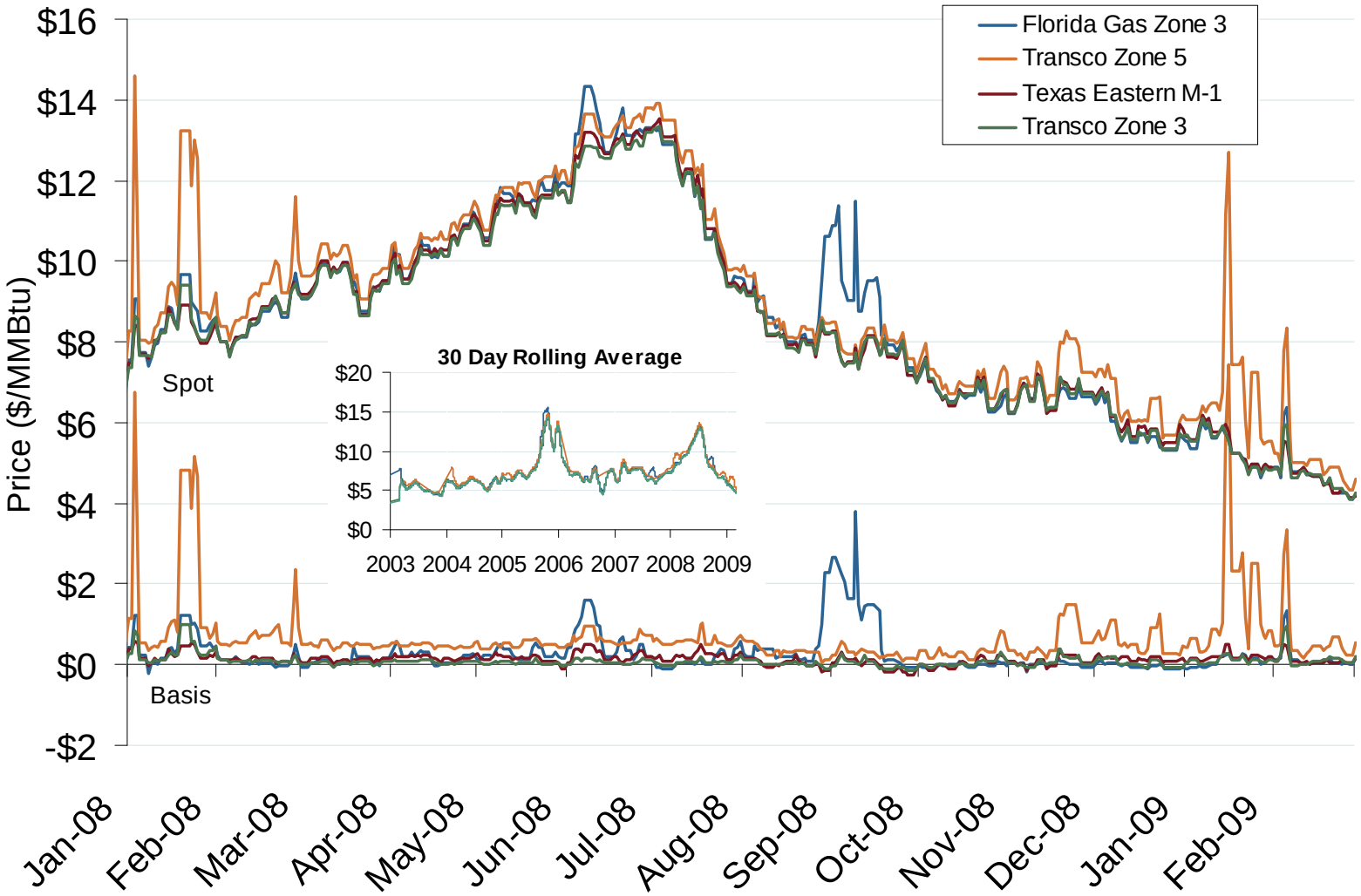
Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.

Updated March 9, 2009

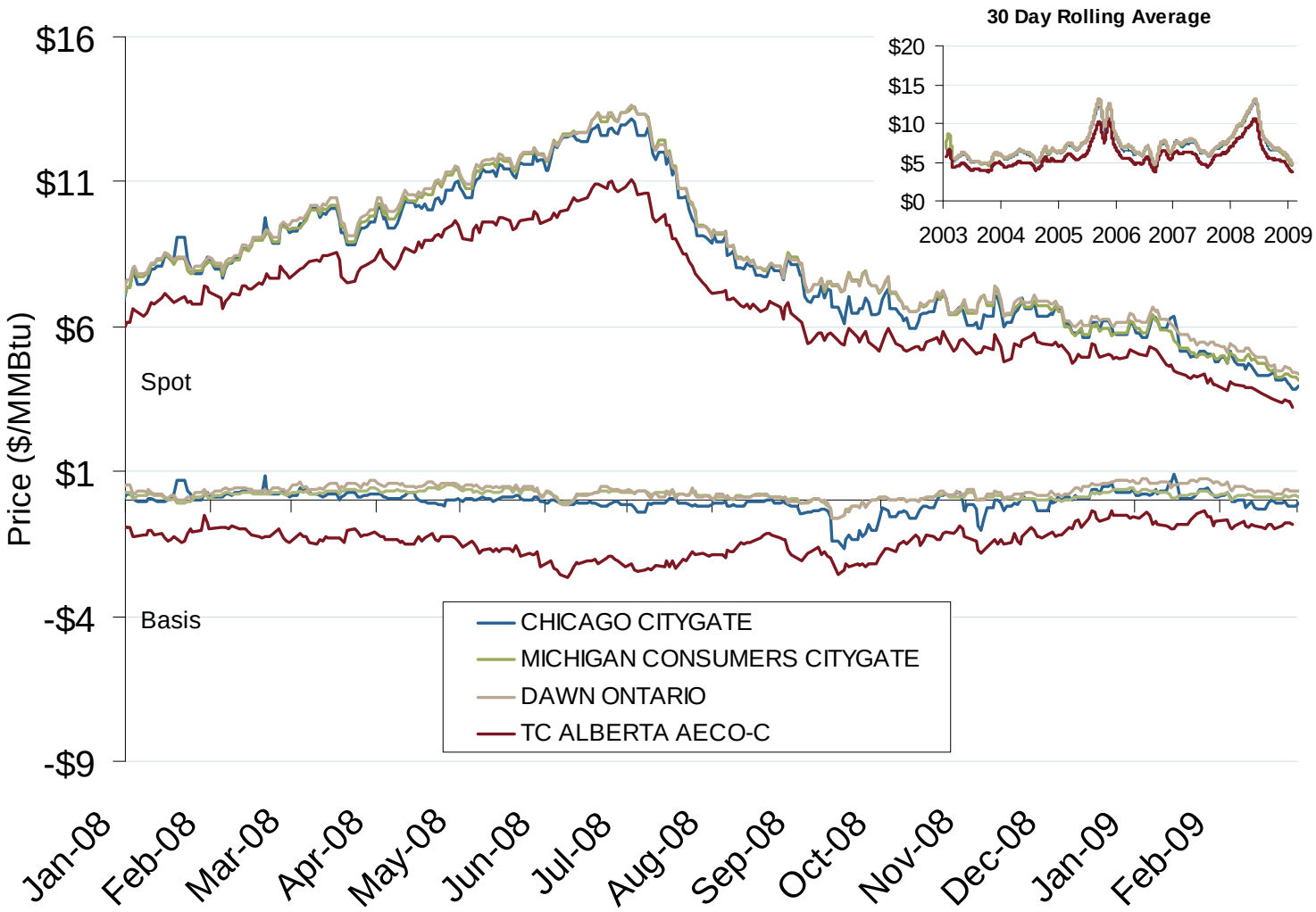
Southeastern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated March 9, 2009

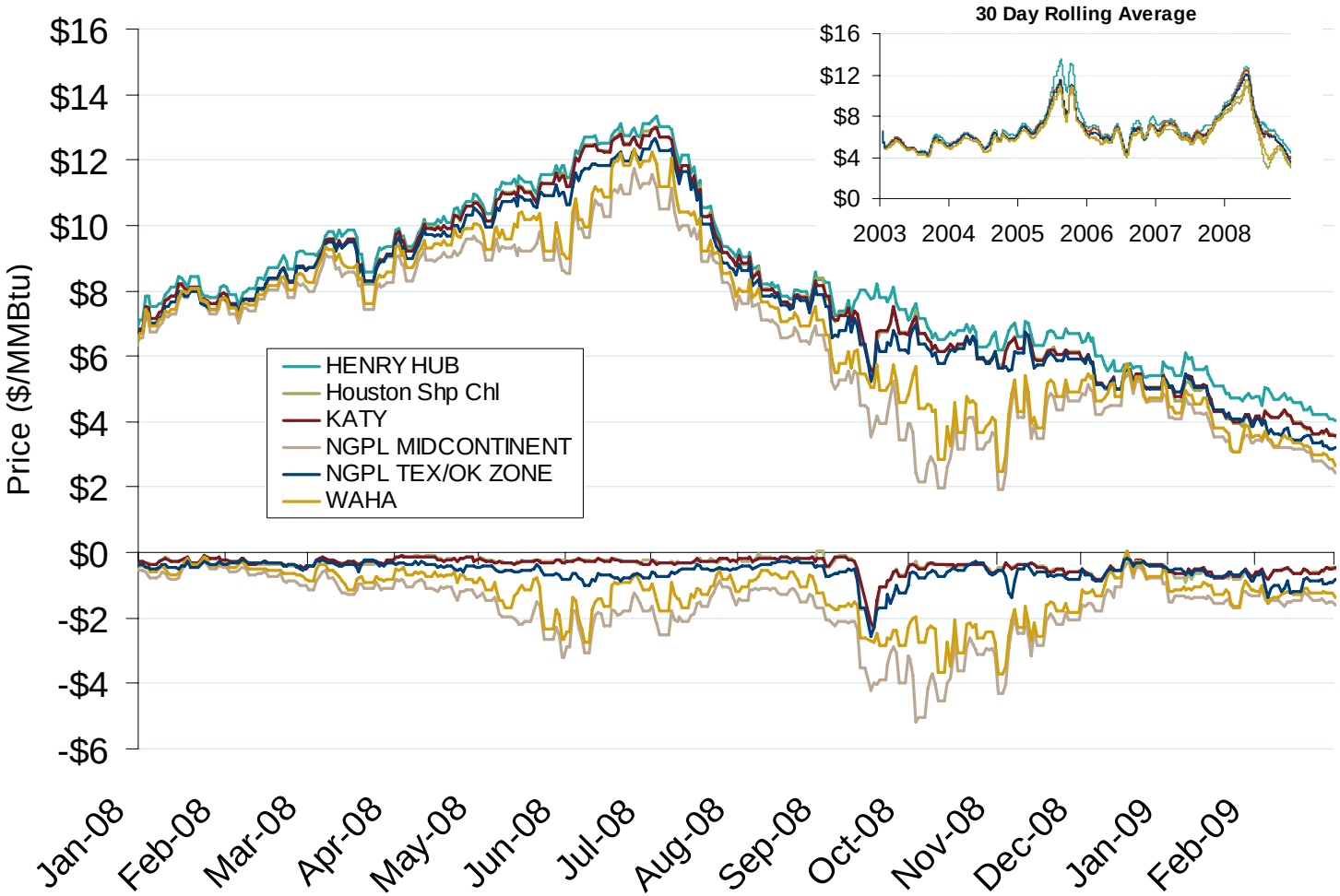
Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated March 9, 2009

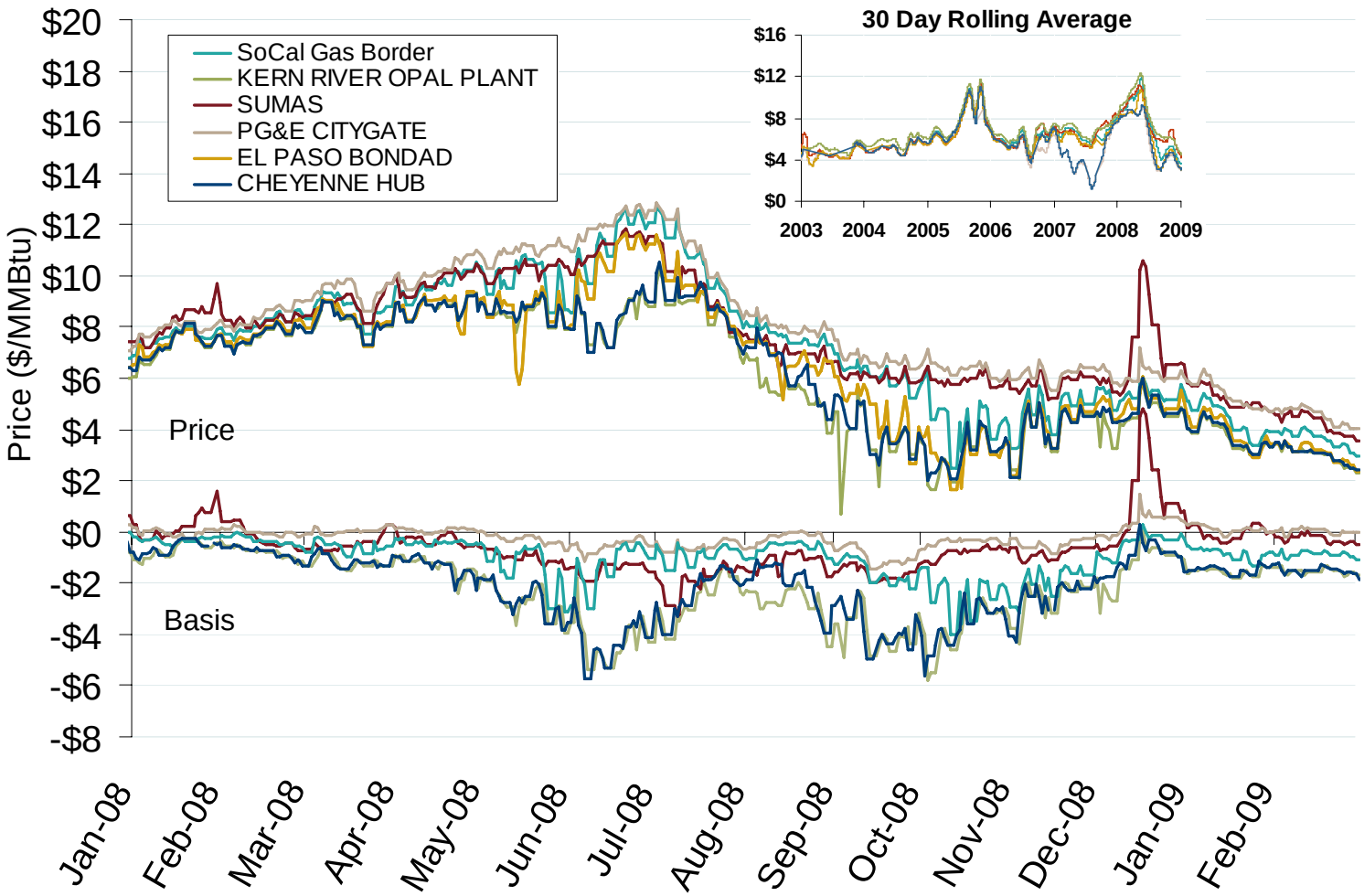
South Central Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated March 9, 2009

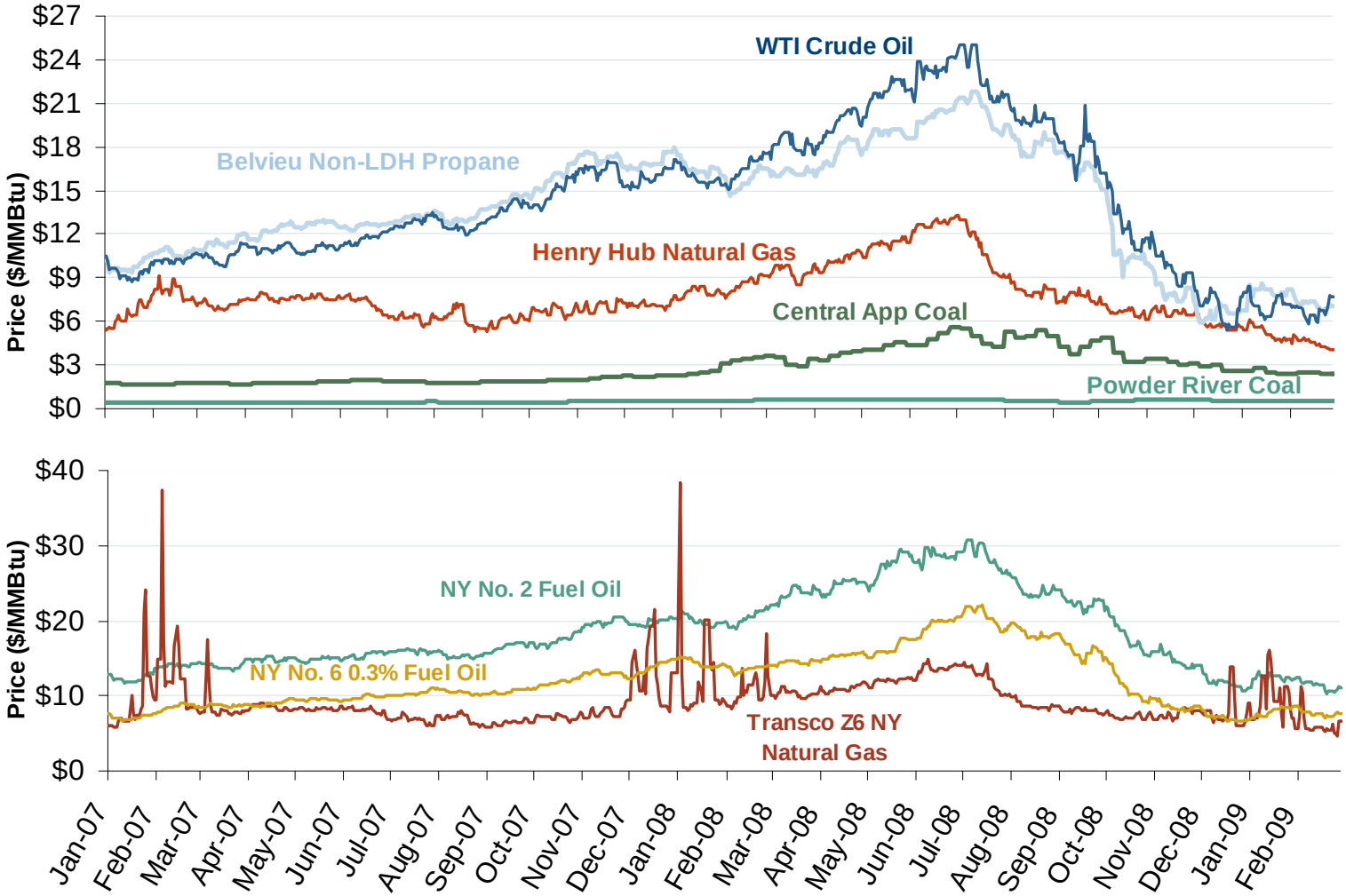
Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated March 9, 2009

Oil, Coal, Natural Gas and Propane Daily Spot Prices

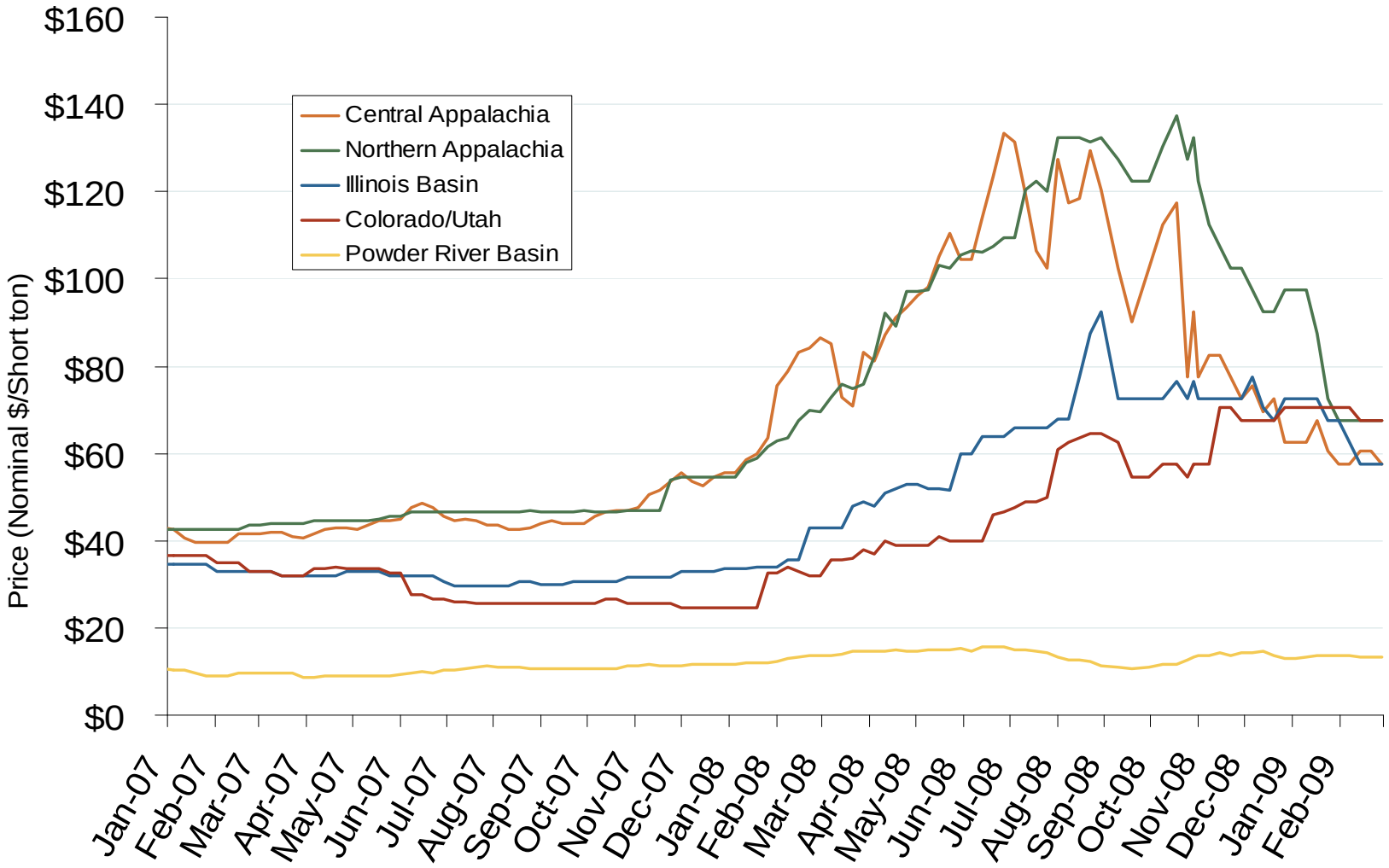


Source: Derived from *ICE* and *Bloomberg* data.

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

Regional Coal Spot Prices

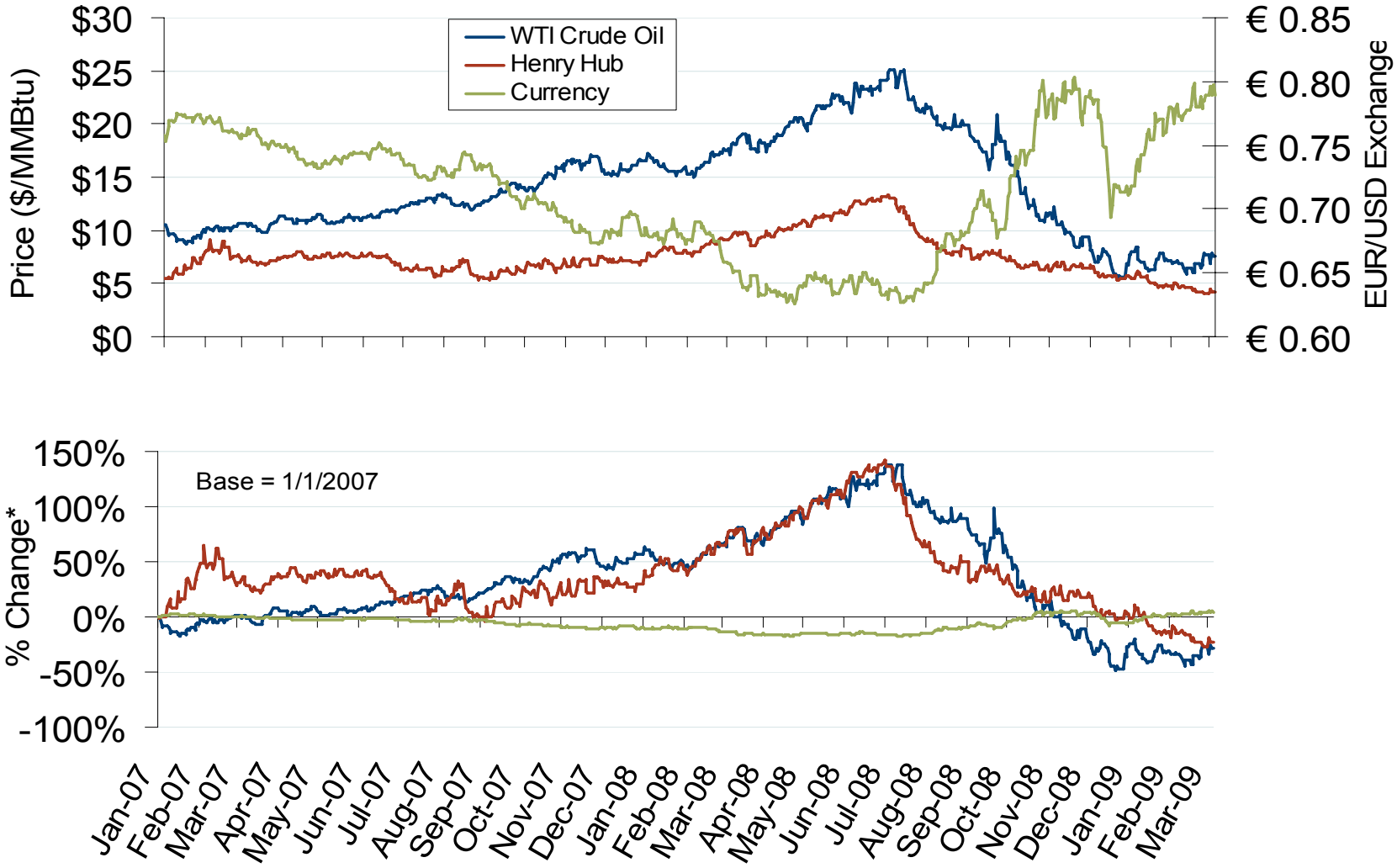


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

Updated March 9, 2009

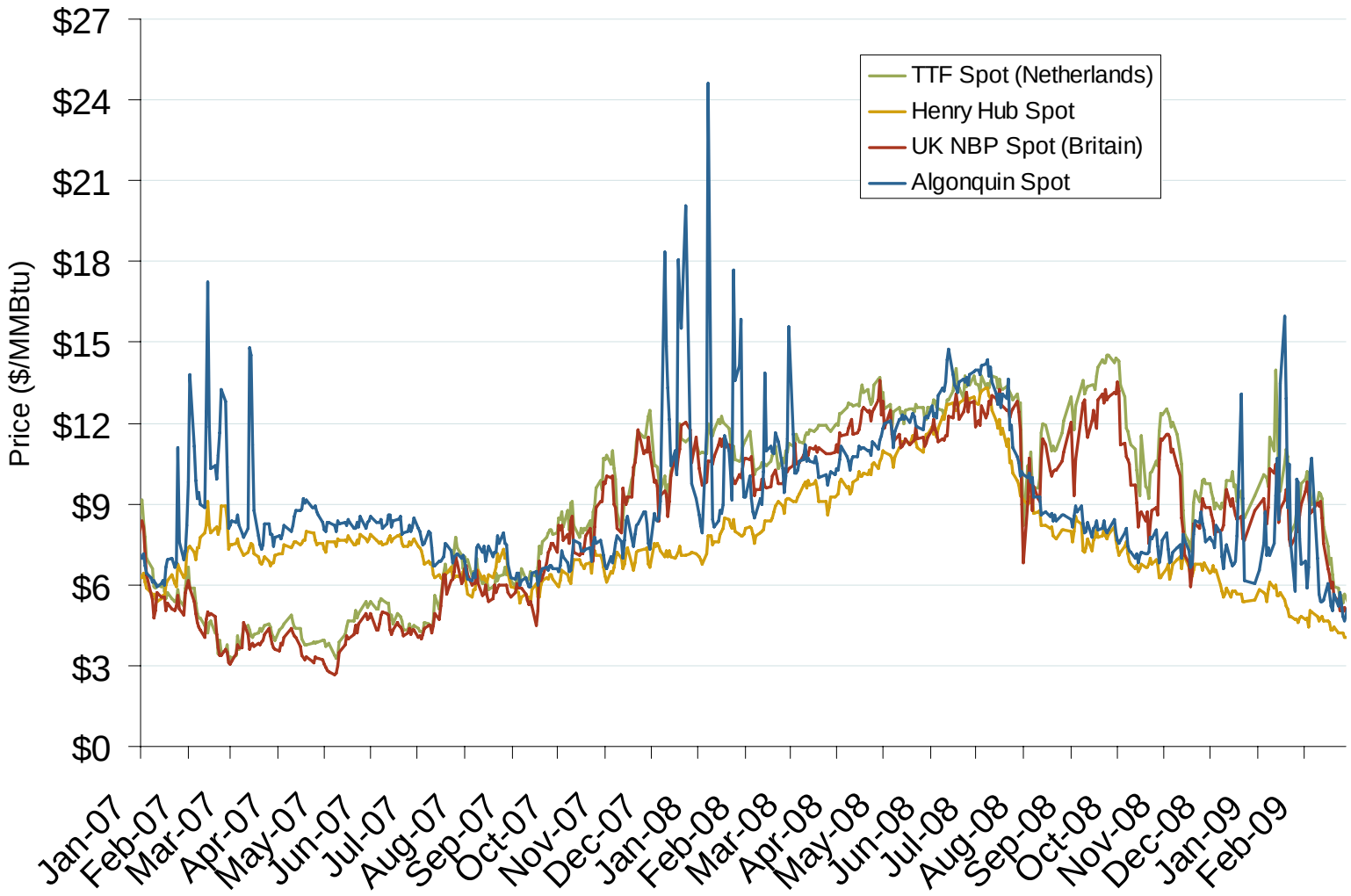
Oil, Natural Gas and Currency Spot Prices



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.

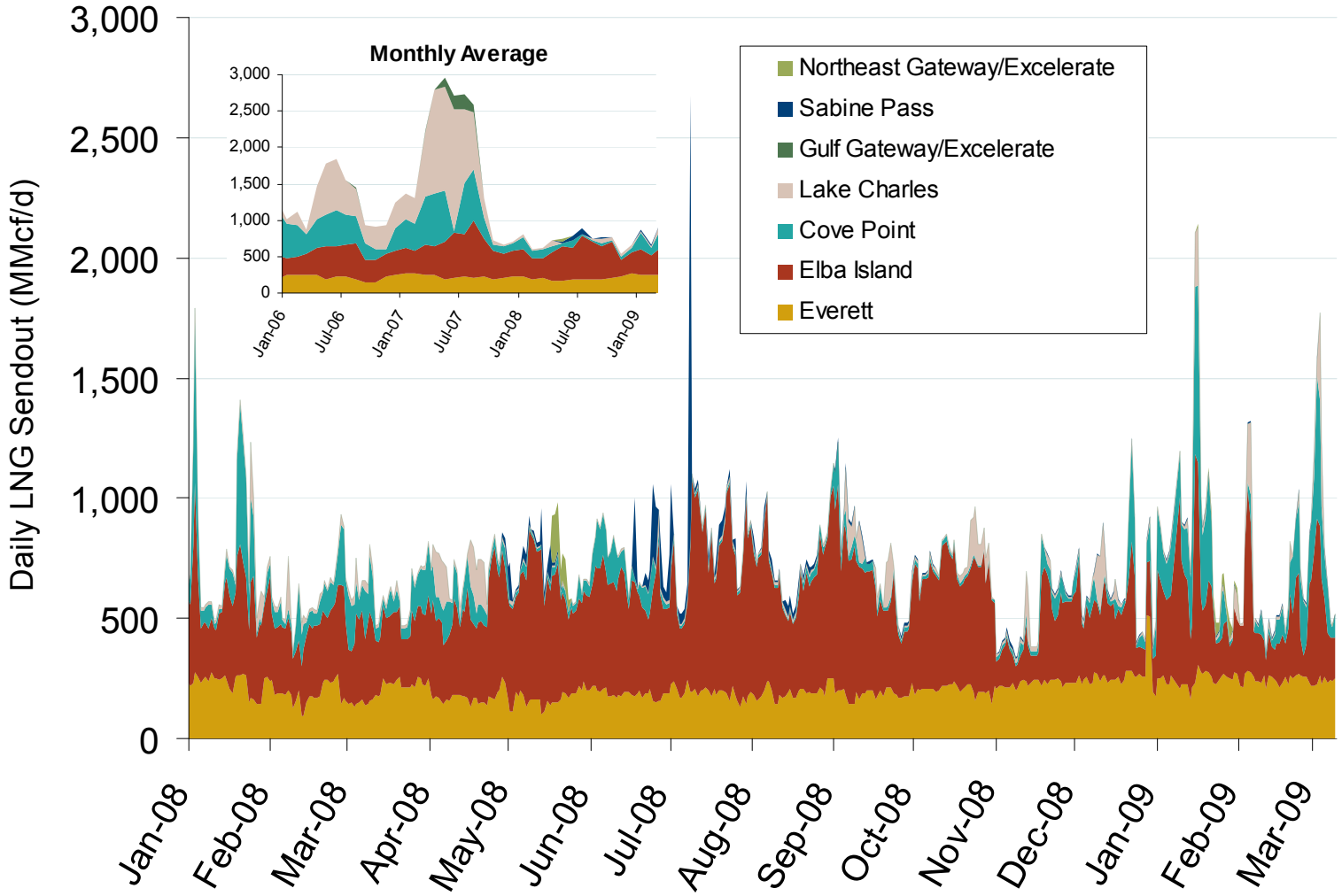
Updated March 9, 2009

World LNG Estimated March 2009 Landed Prices

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

Updated March 9, 2009

Daily Gas Sendout from Existing U.S. LNG Facilities

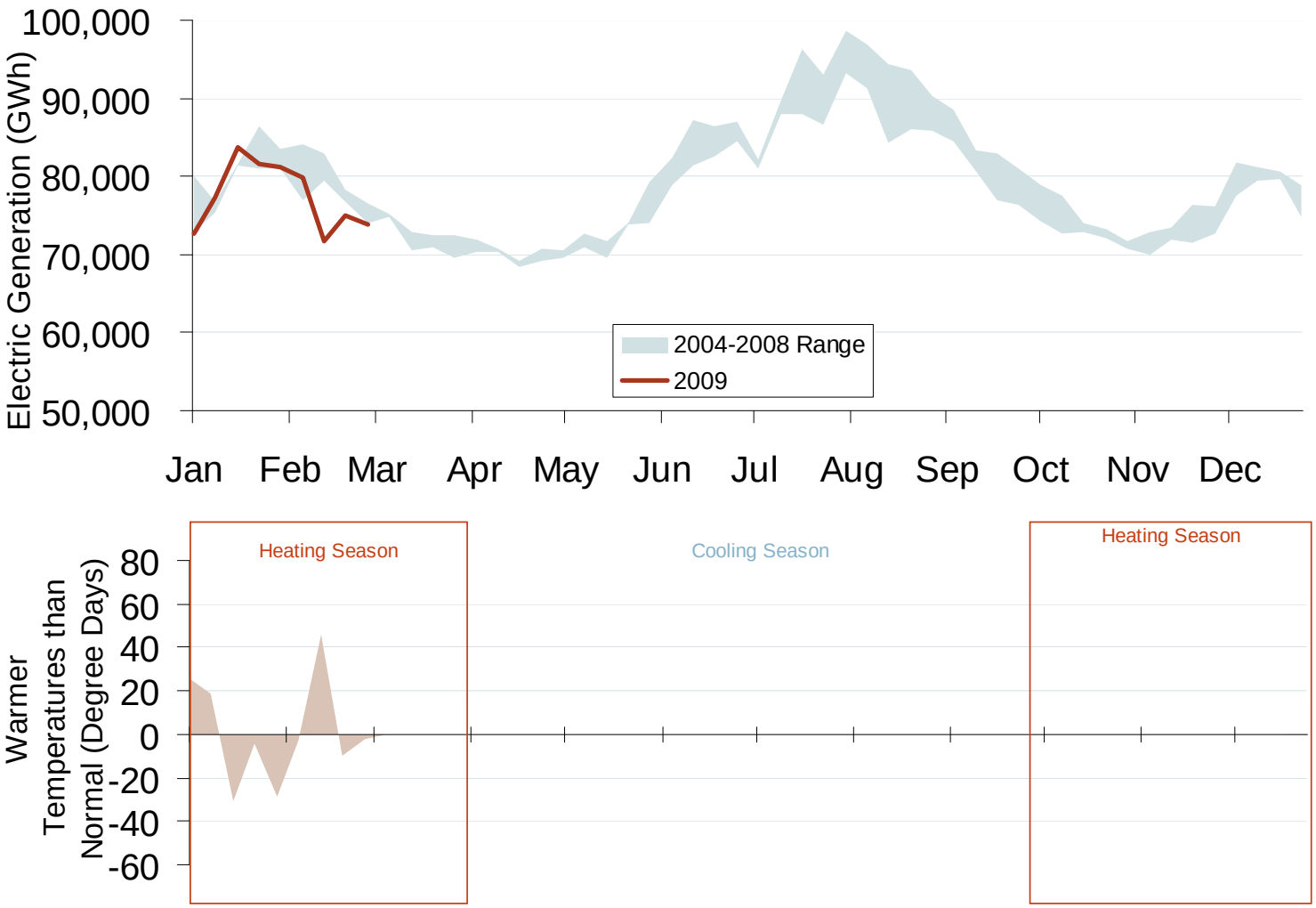


Source: Derived from *Bentek* data. Excludes Everett LNG delivered via truck and consumed by the Mystic plant as well as Freeport LNG which flows via intrastate pipelines.

Updated March 9, 2009

Electricity Markets

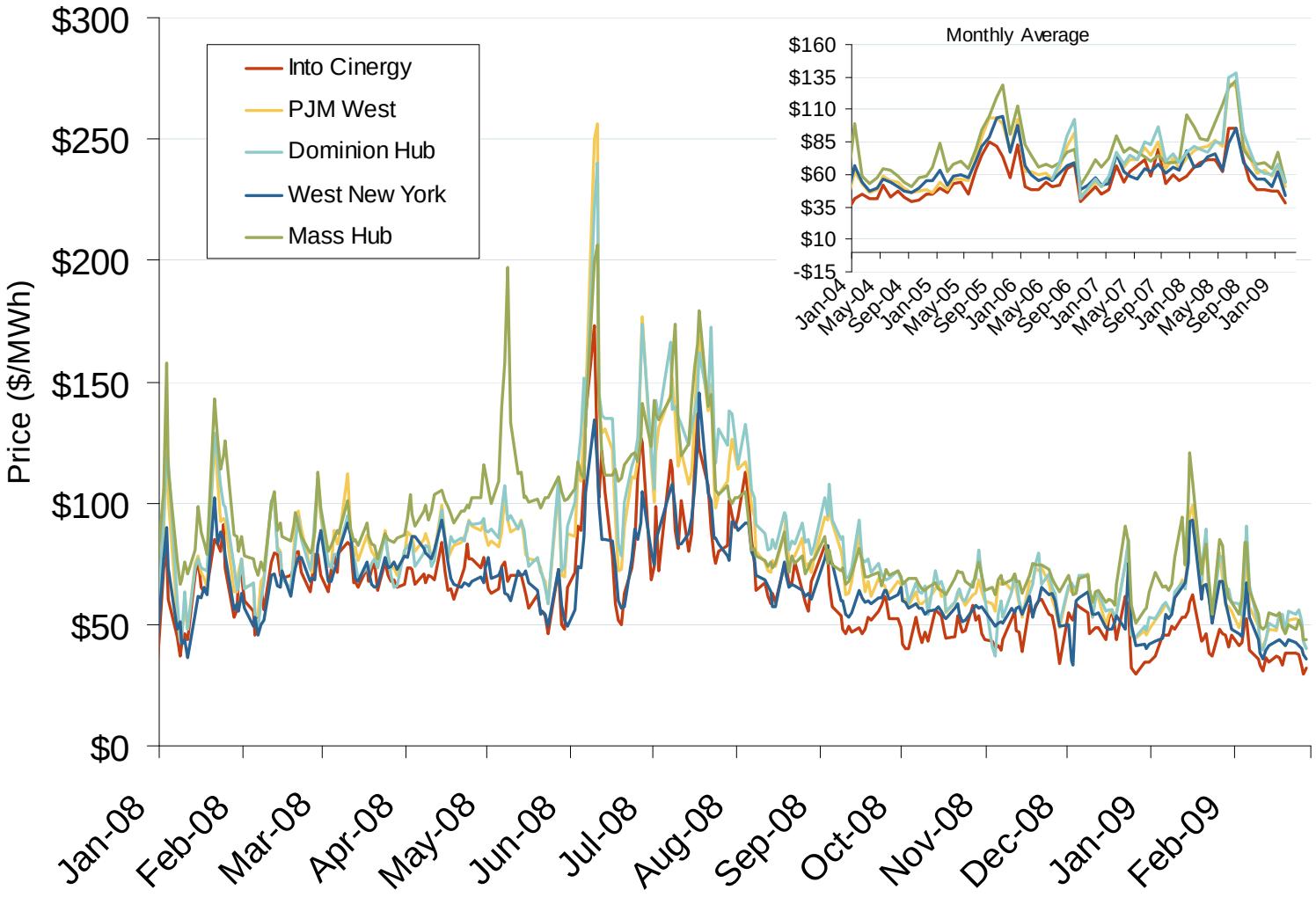
Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from *EEI* and *NOAA* data.

Updated March 9, 2009

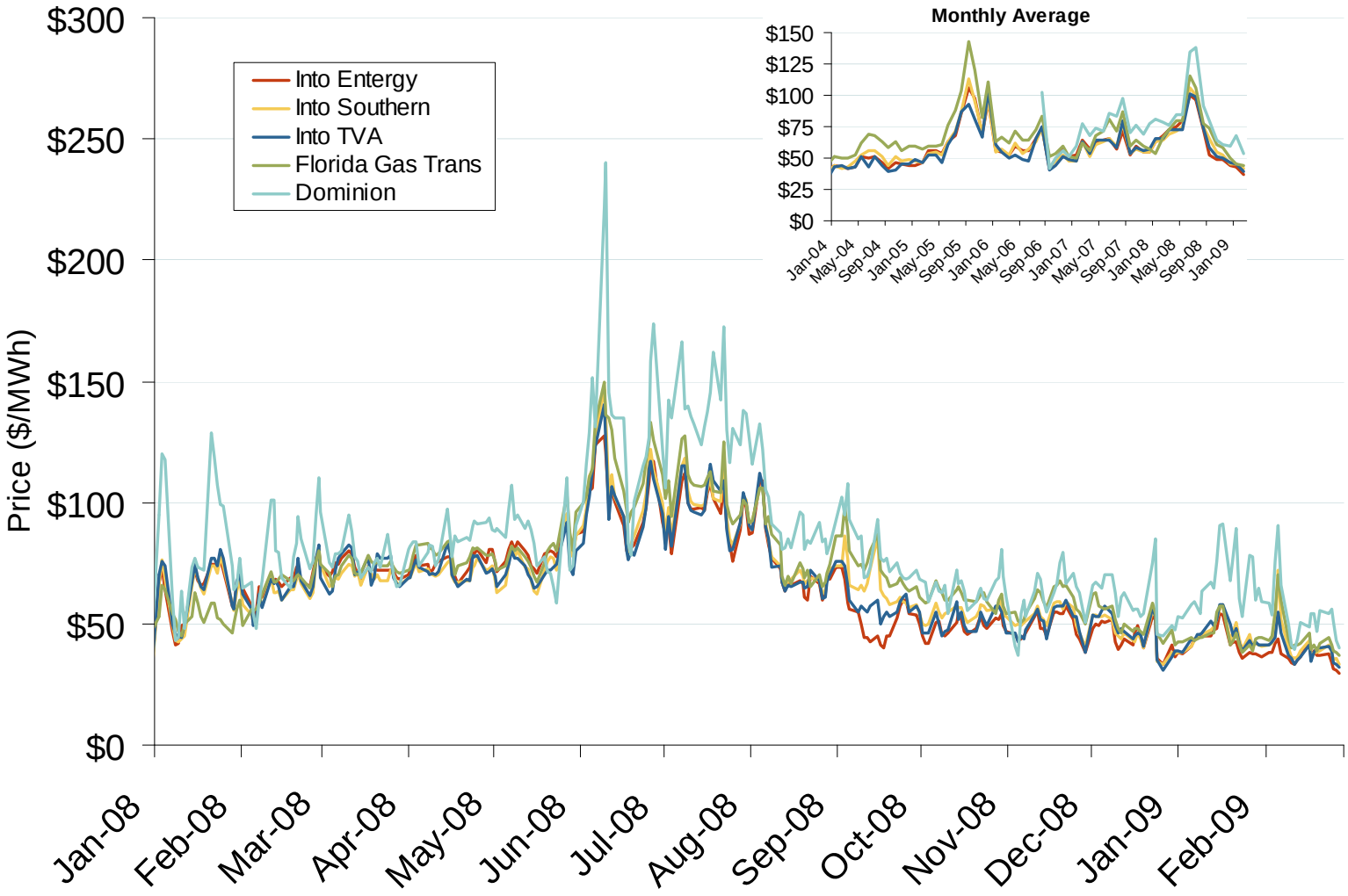
Eastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated March 9, 2009

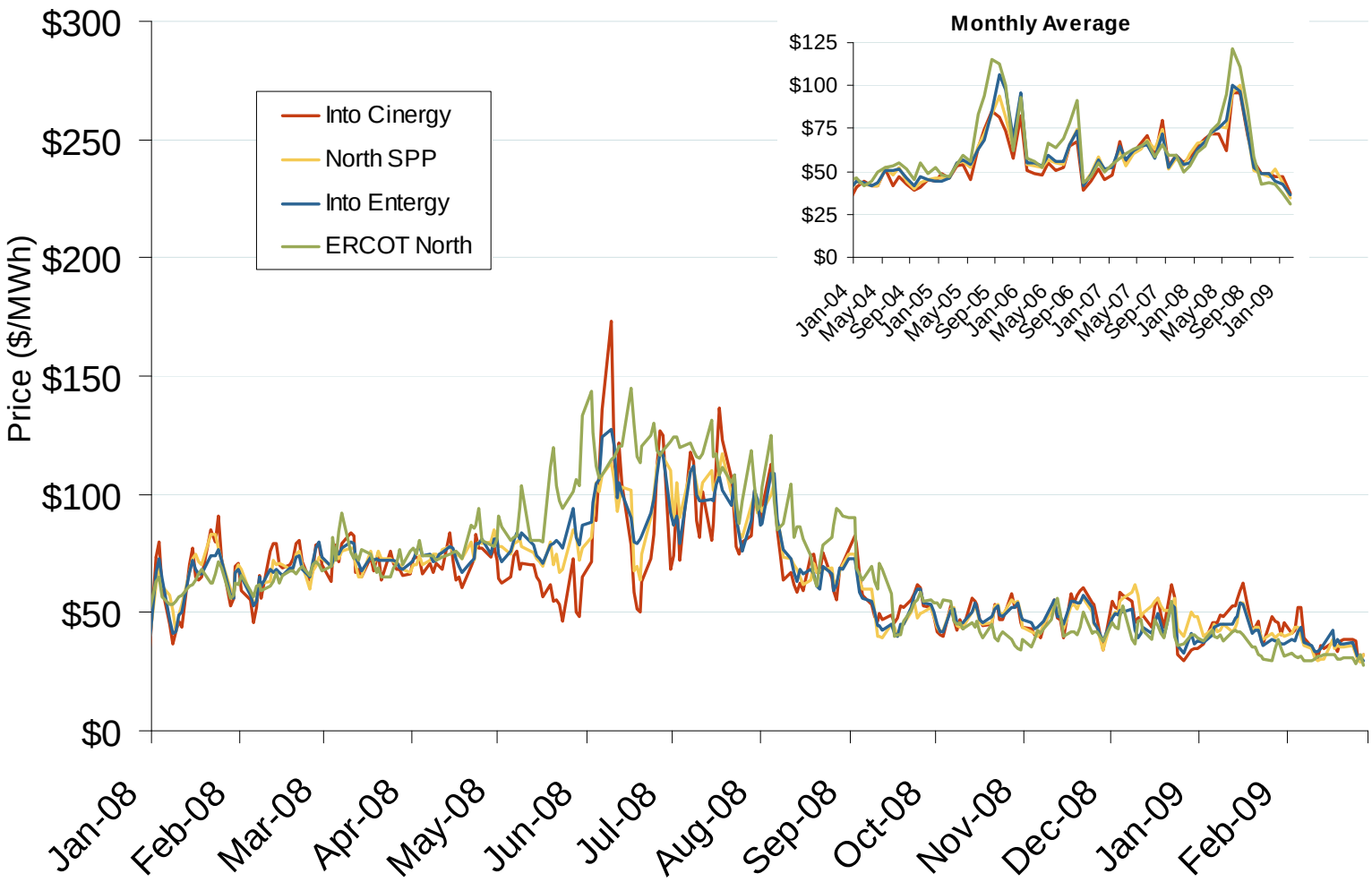
Southeastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated March 9, 2009

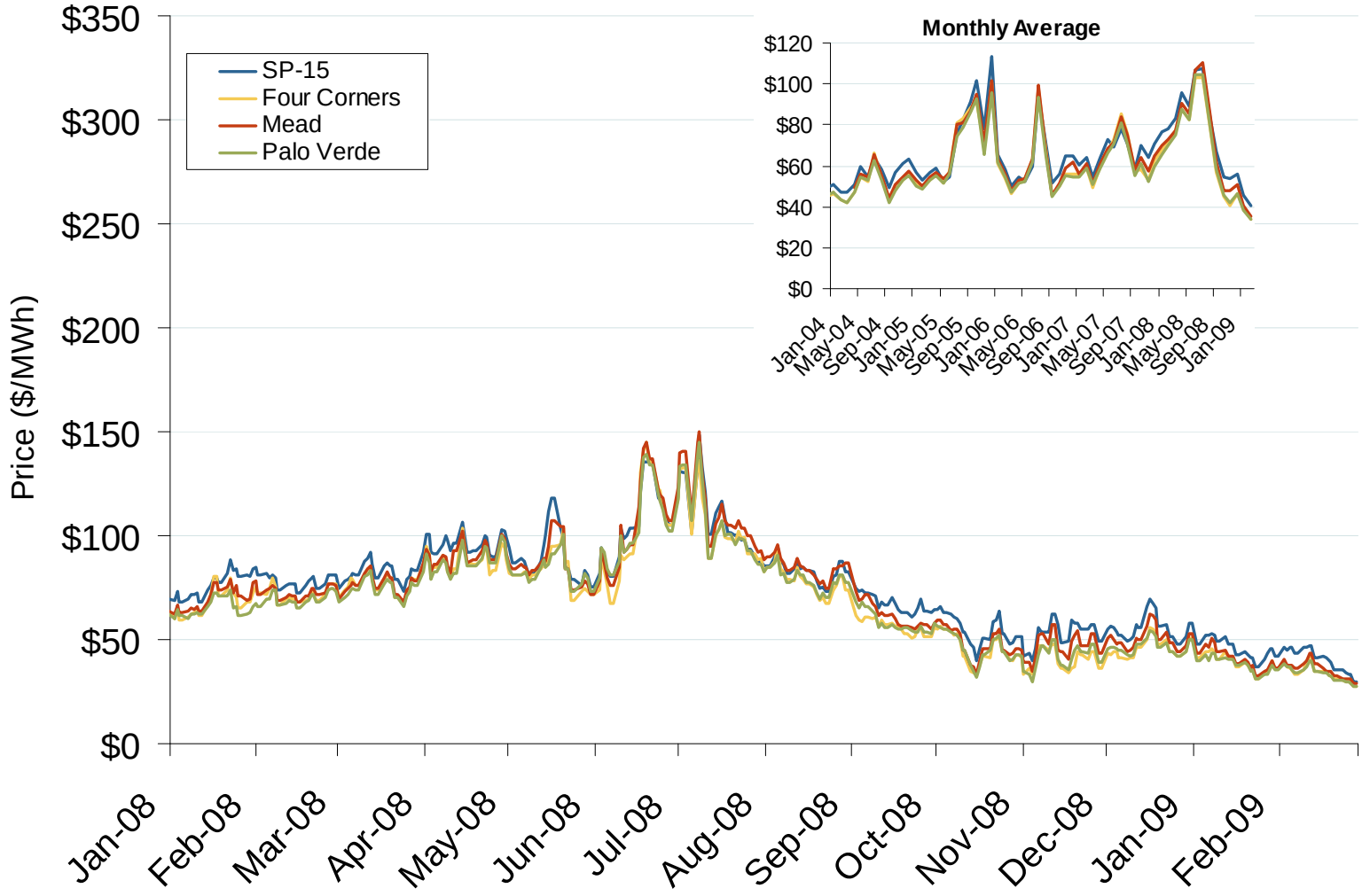
Central Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated March 9, 2009

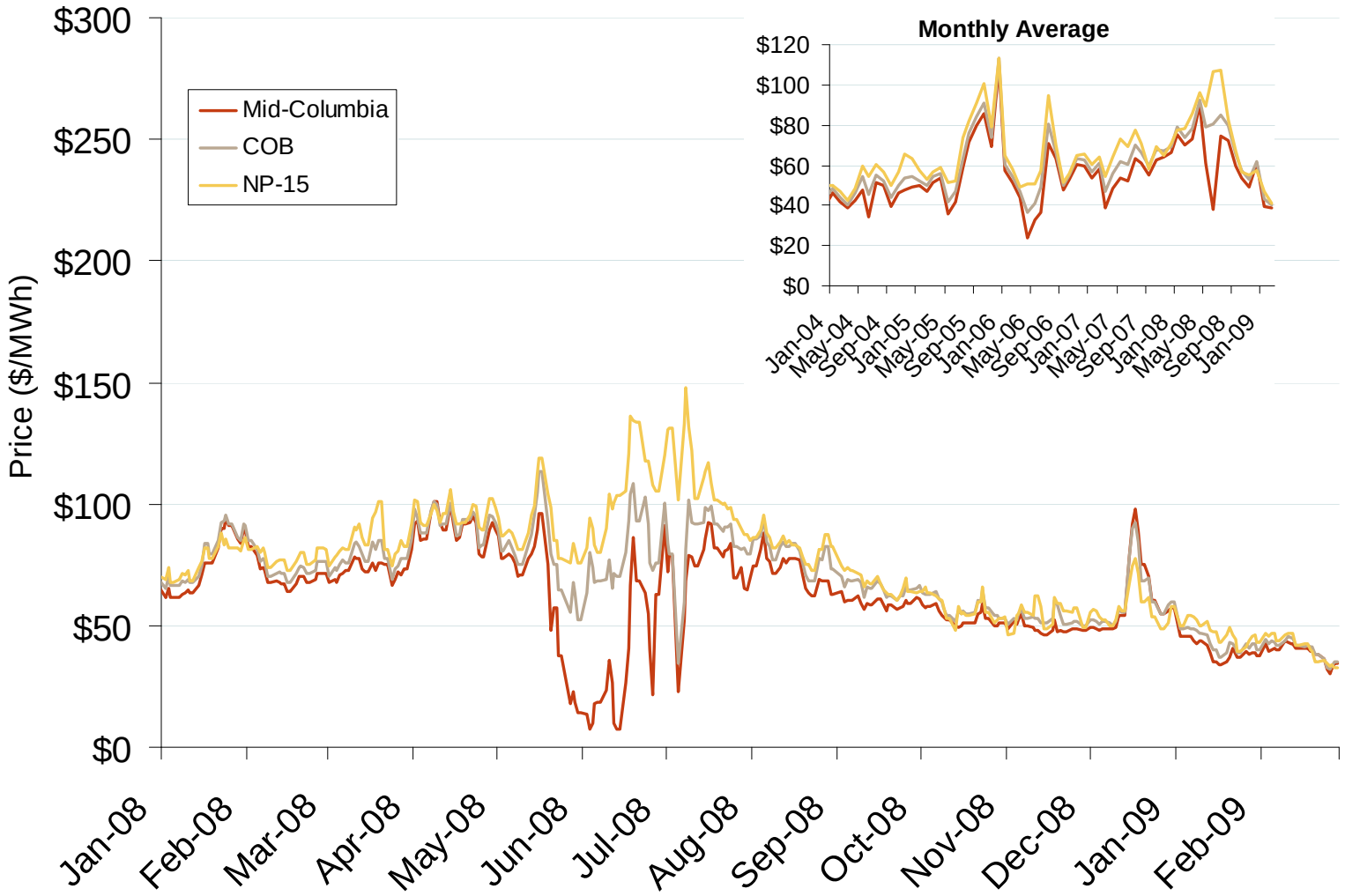
Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated March 9, 2009

Northwestern Daily Bilateral Day-Ahead On-Peak Prices



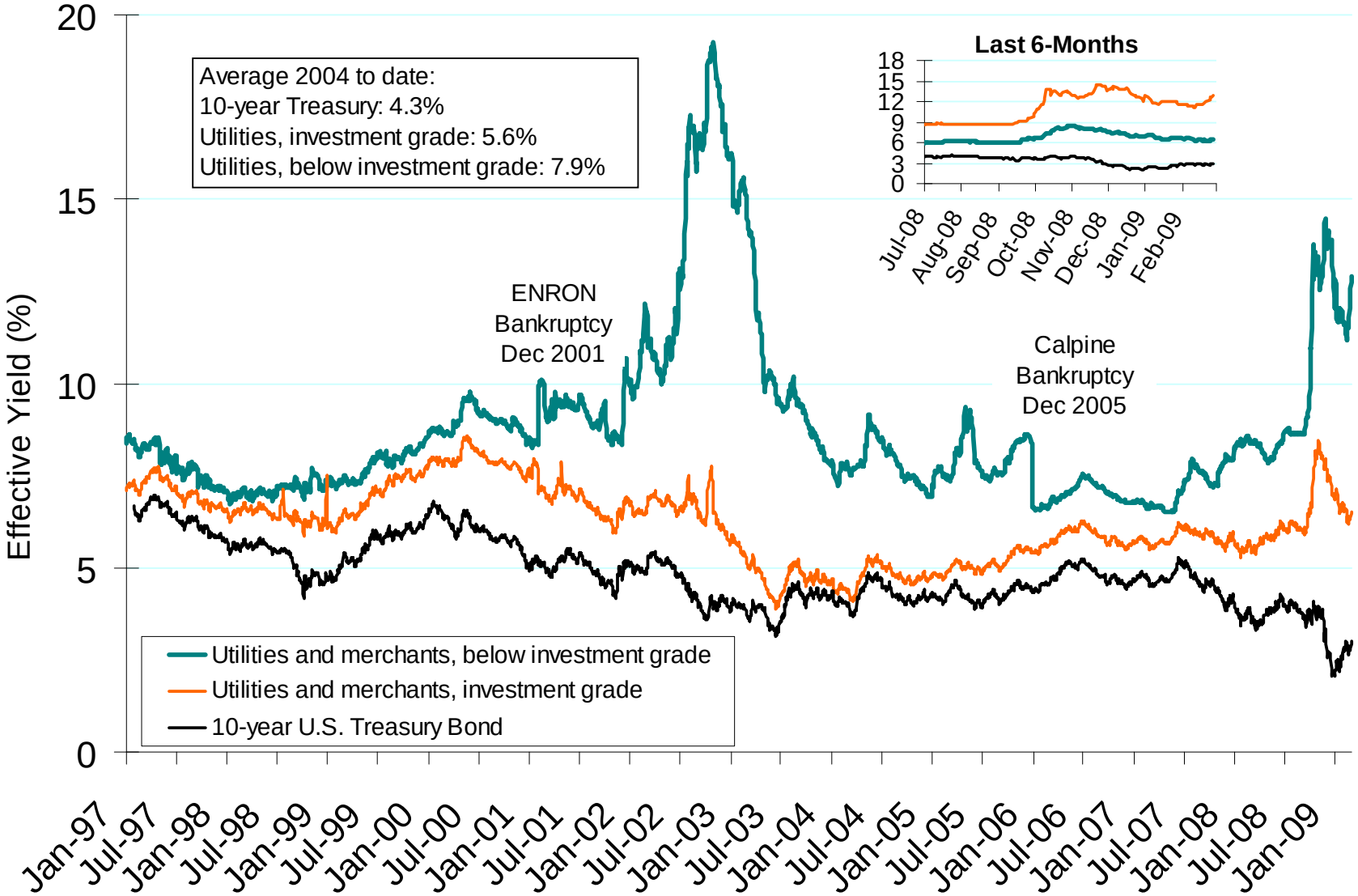
Source: Derived from *Platts* data.

Updated March 9, 2009

Financial Markets: Comparative Bond Yields

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

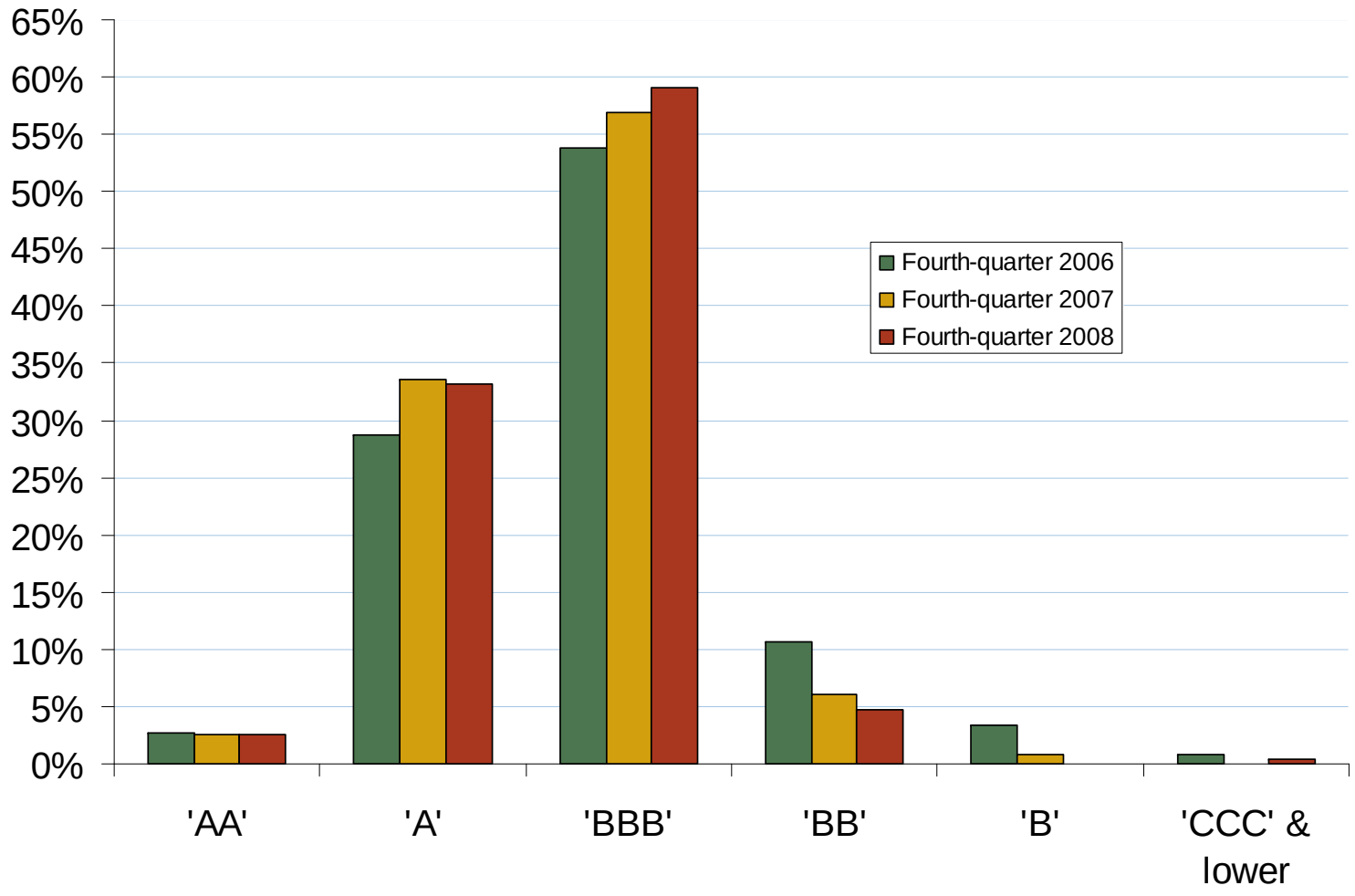
Yields of Utilities, Merchants and Ten Year Treasury Bonds



Source: Derived from Merrill Lynch Index U.S Corporates, Gas and Electric Utilities and Bloomberg data.

Updated March 9, 2009

U.S. Electric and Gas Utility Ratings Distribution



Source: Derived from Standard and Poors data.

Updated March 9, 2009