

OE ENERGY MARKET SNAPSHOT

Northeast States Version – May 2010 Data

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

Office of Enforcement
Federal Energy Regulatory Commission
June 2010



Special Report:

- **Summer Assessment**

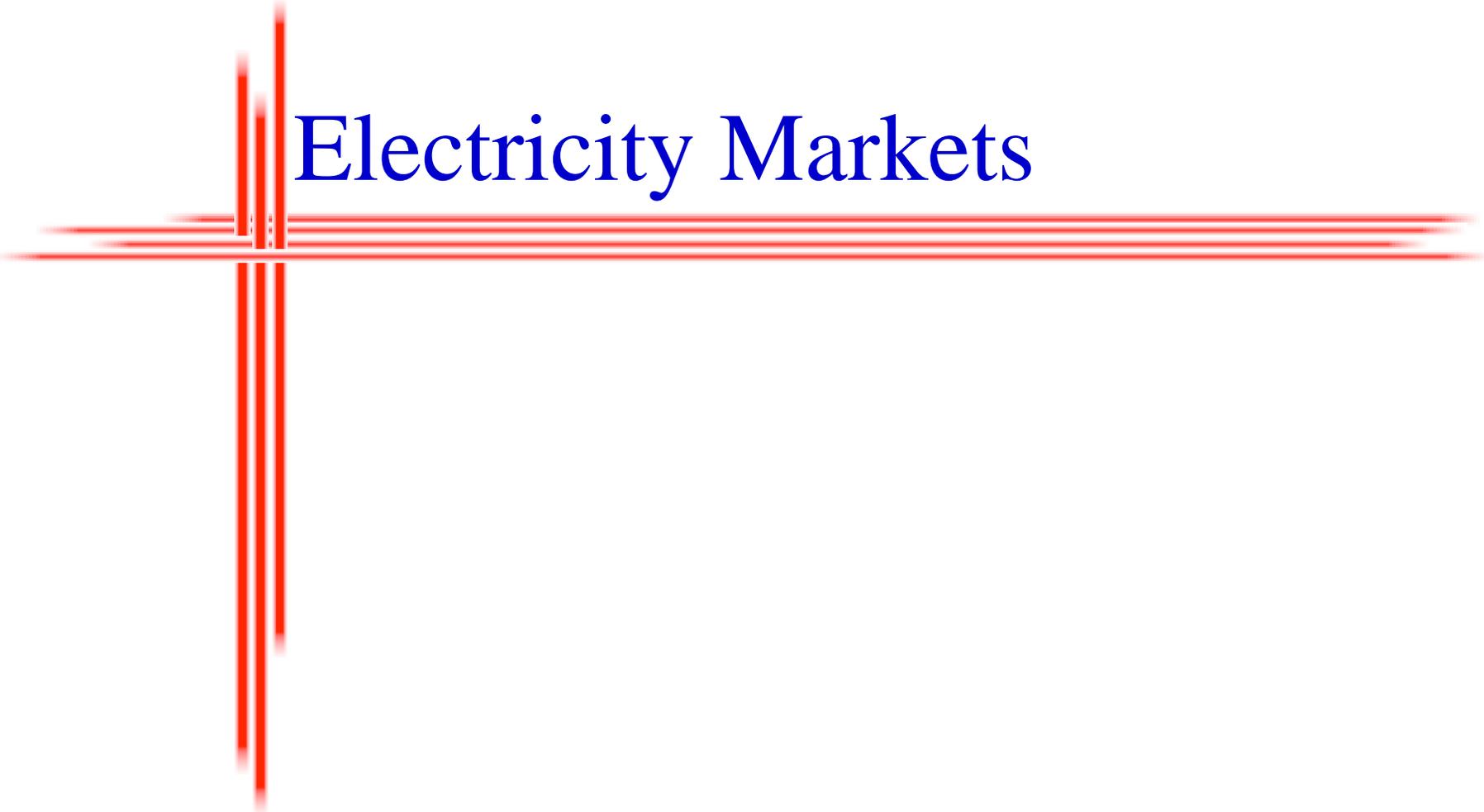


FEDERAL ENERGY REGULATORY COMMISSION

**Summer 2010
Energy Market and
Reliability Assessment**

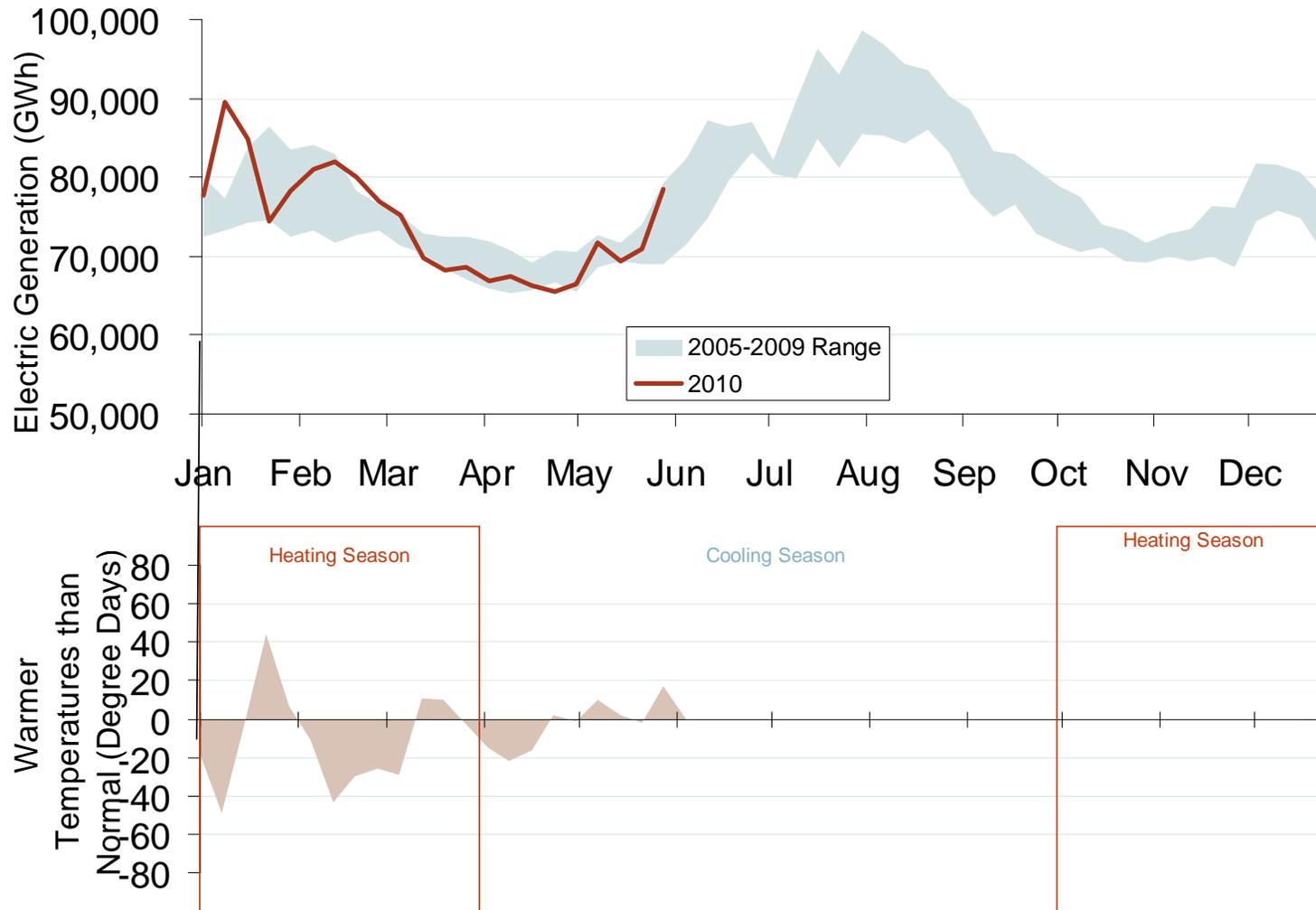
**Item No: A-3
May 20, 2010**

<http://www.ferc.gov/market-oversight/mkt-views/2010/05-20-10.pdf>

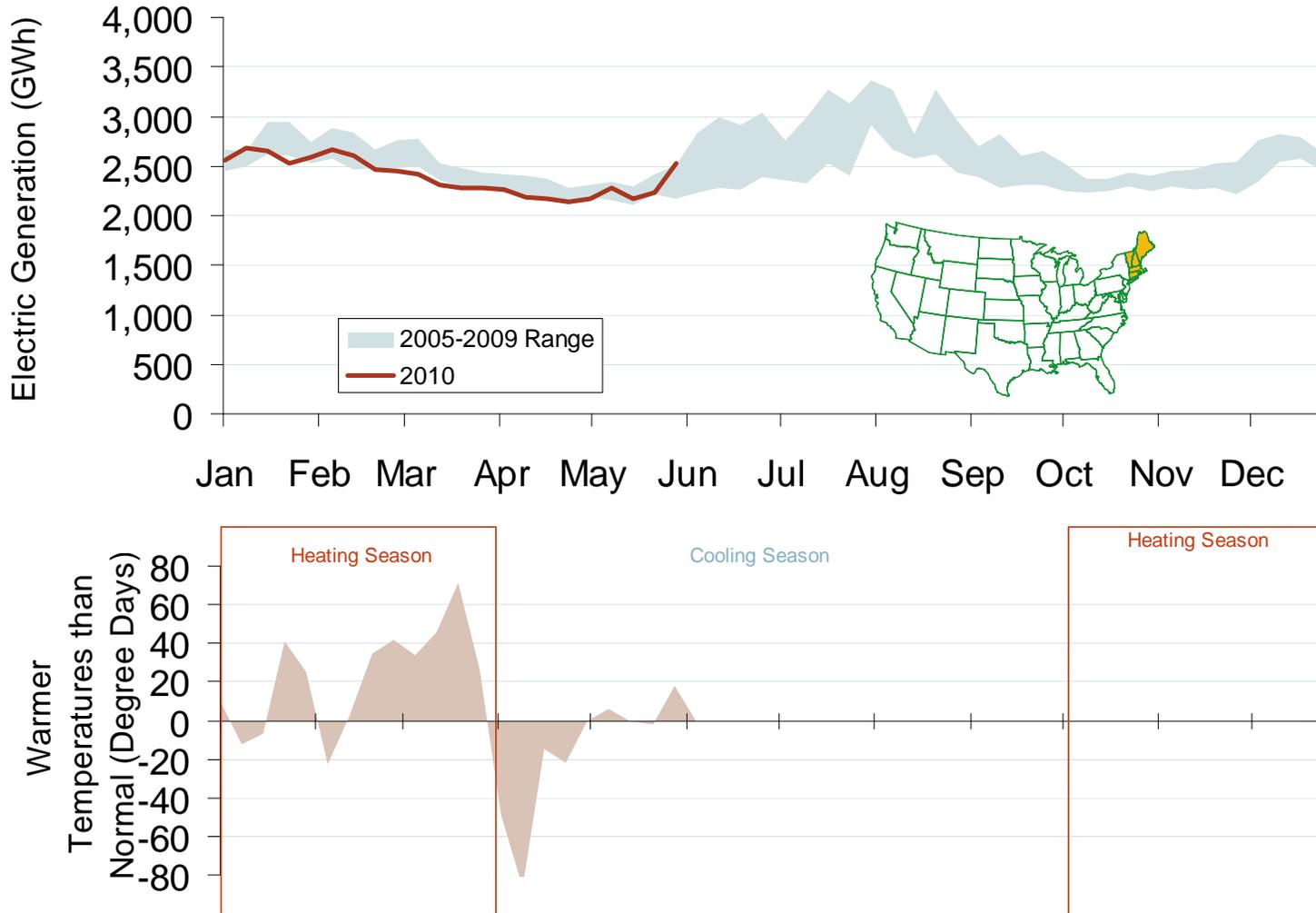


Electricity Markets

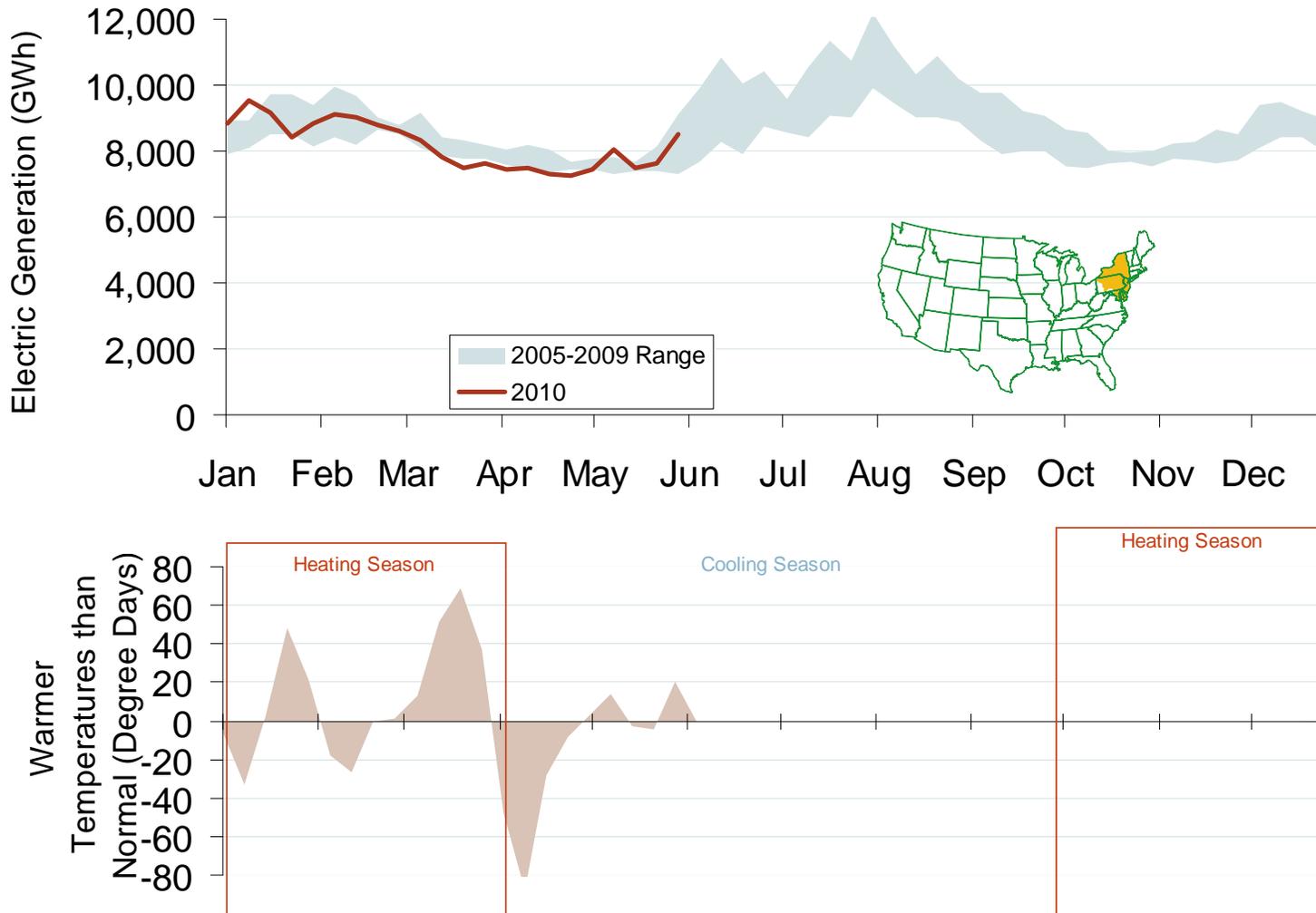
Weekly U.S. Electric Generation Output and Temperatures



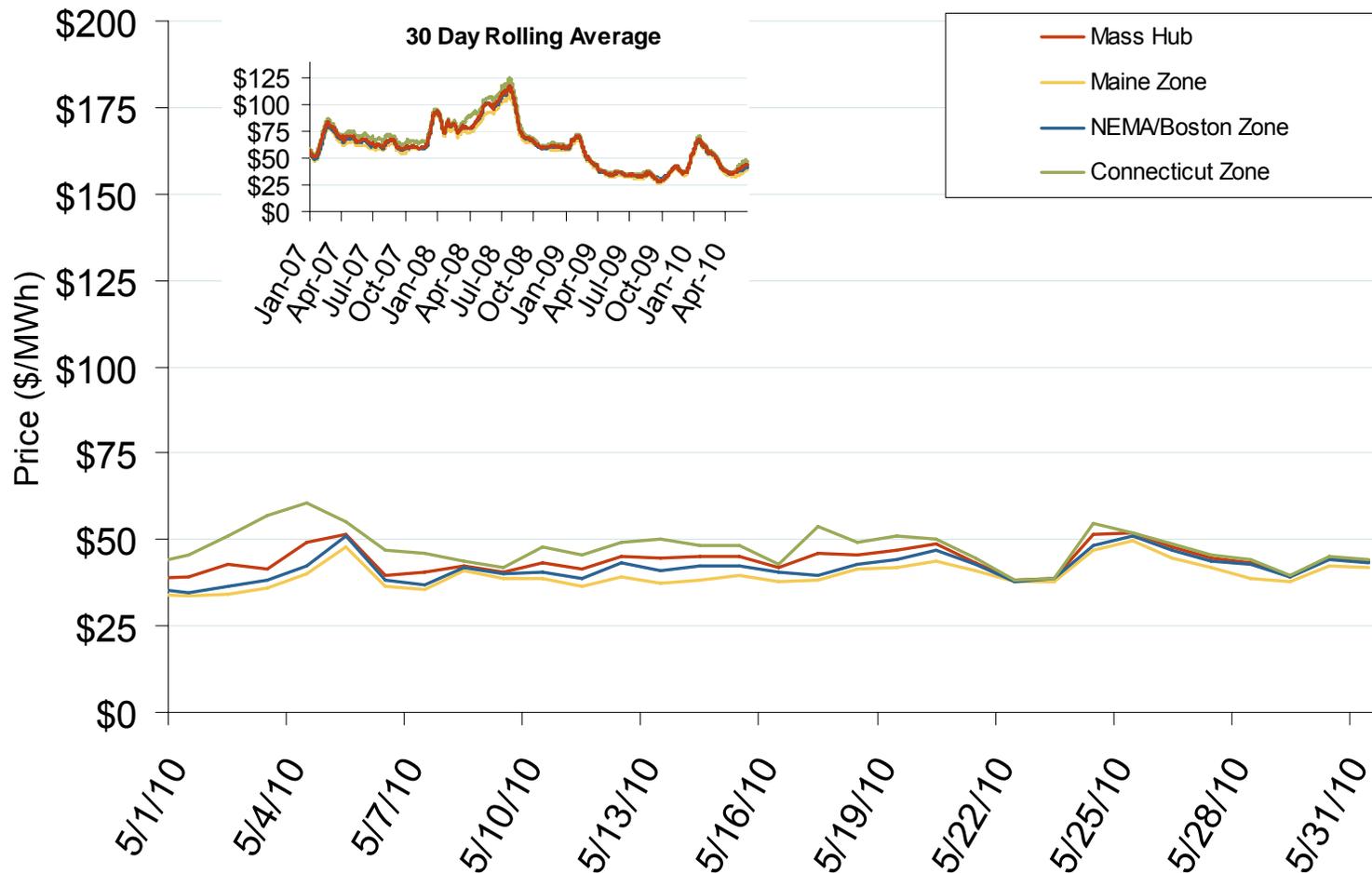
Weekly Electric Generation Output and Temperatures New England



Weekly Electric Generation Output and Temperatures Mid Atlantic Region

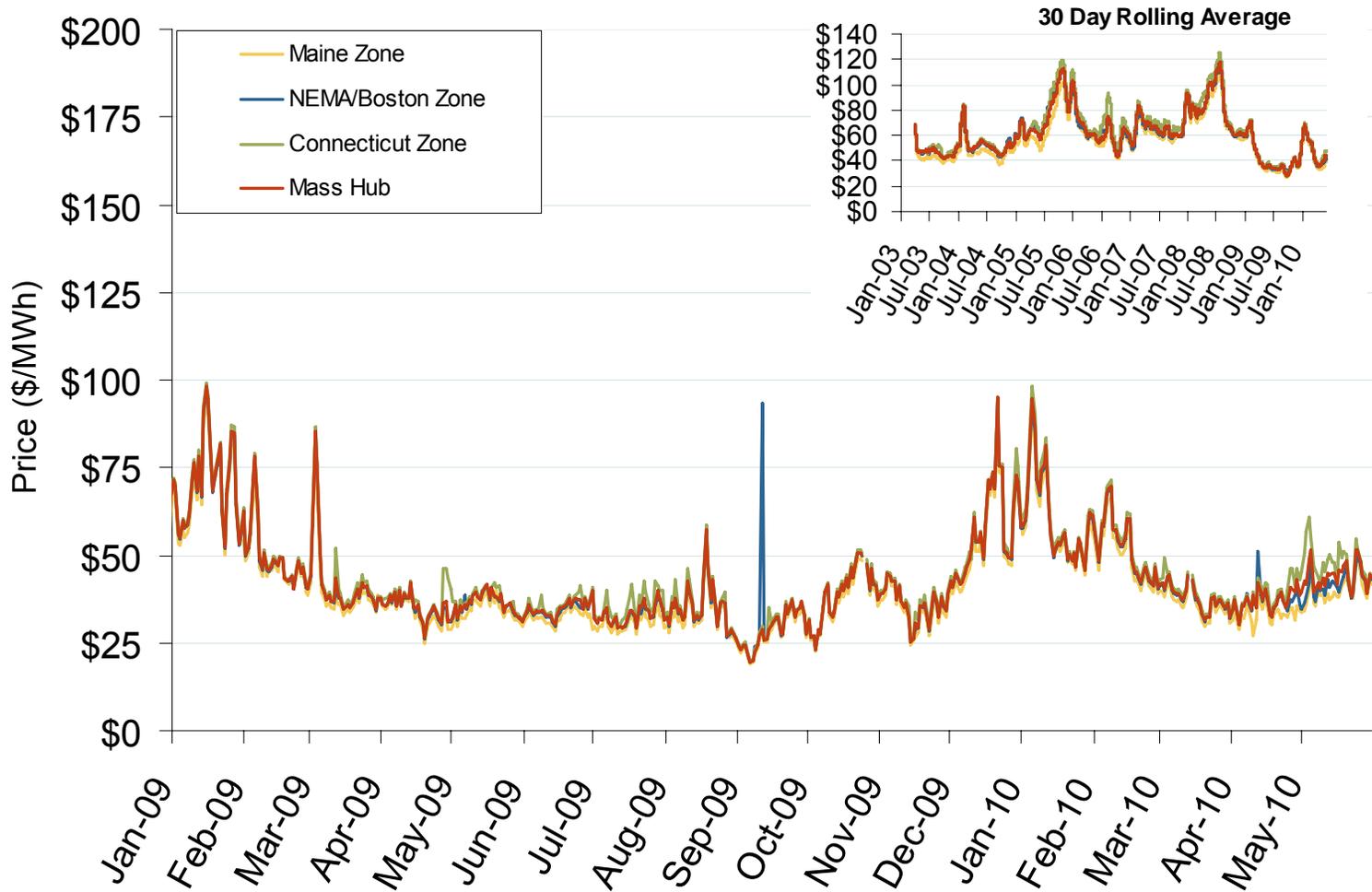


Daily Average of ISO-NE Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg.
June 2010 Northeast Snapshot Report

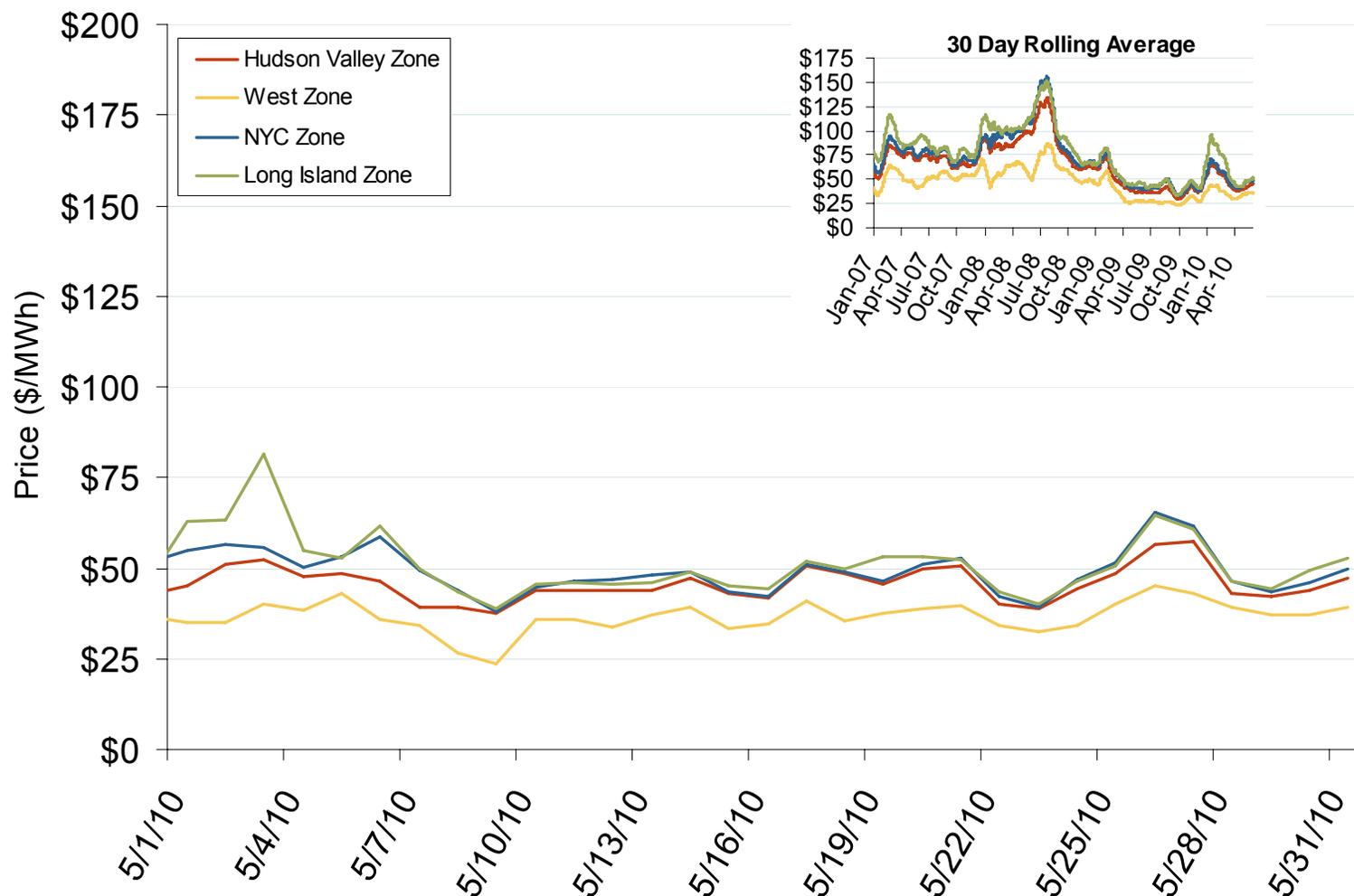
Daily Average of ISO-NE Day-Ahead Prices - All Hours



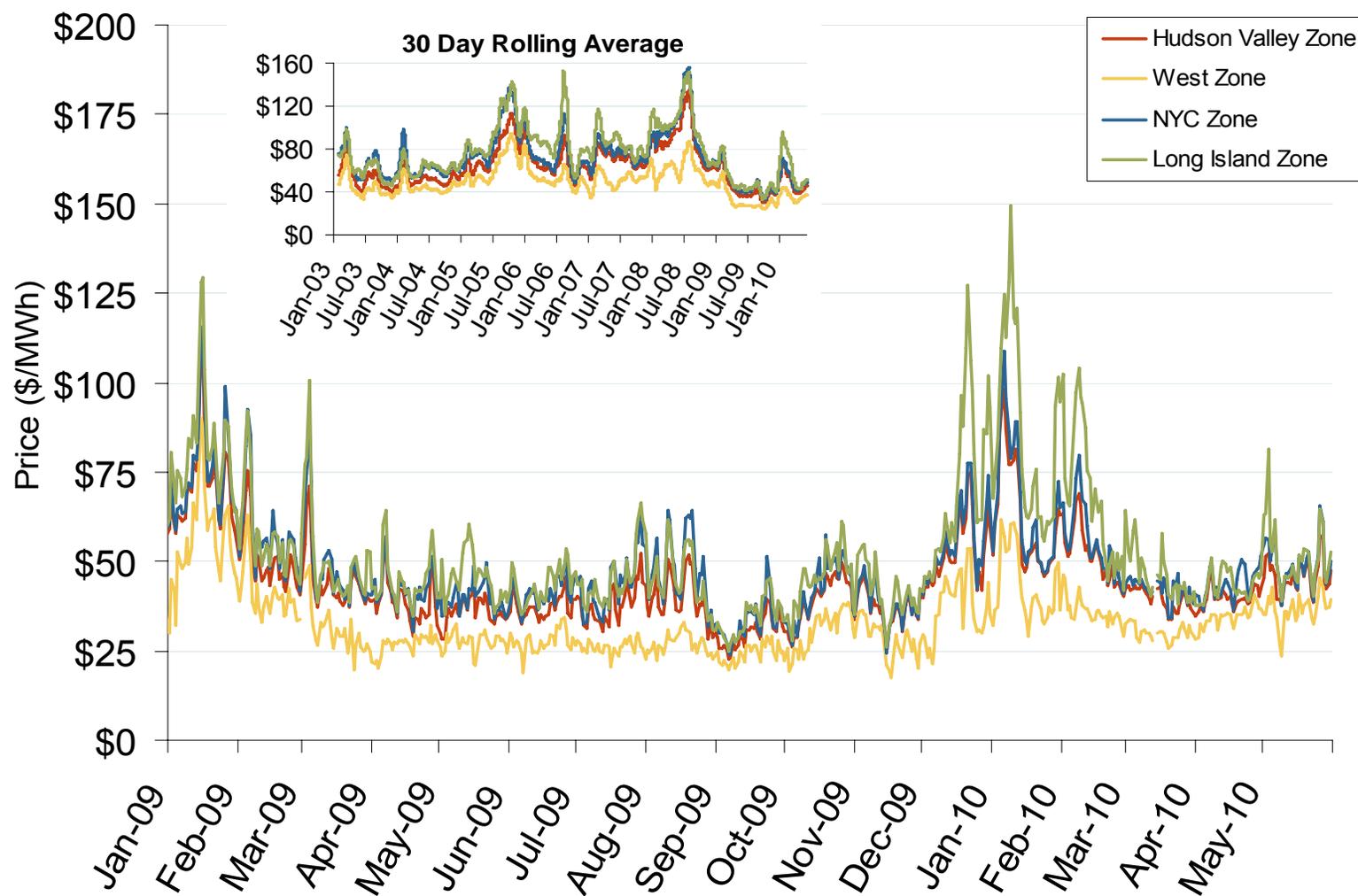
Source: Derived by Bloomberg from ISO-NE data as reported by Bloomberg.
June 2010 Northeast Snapshot Report

Updated June 7, 2010

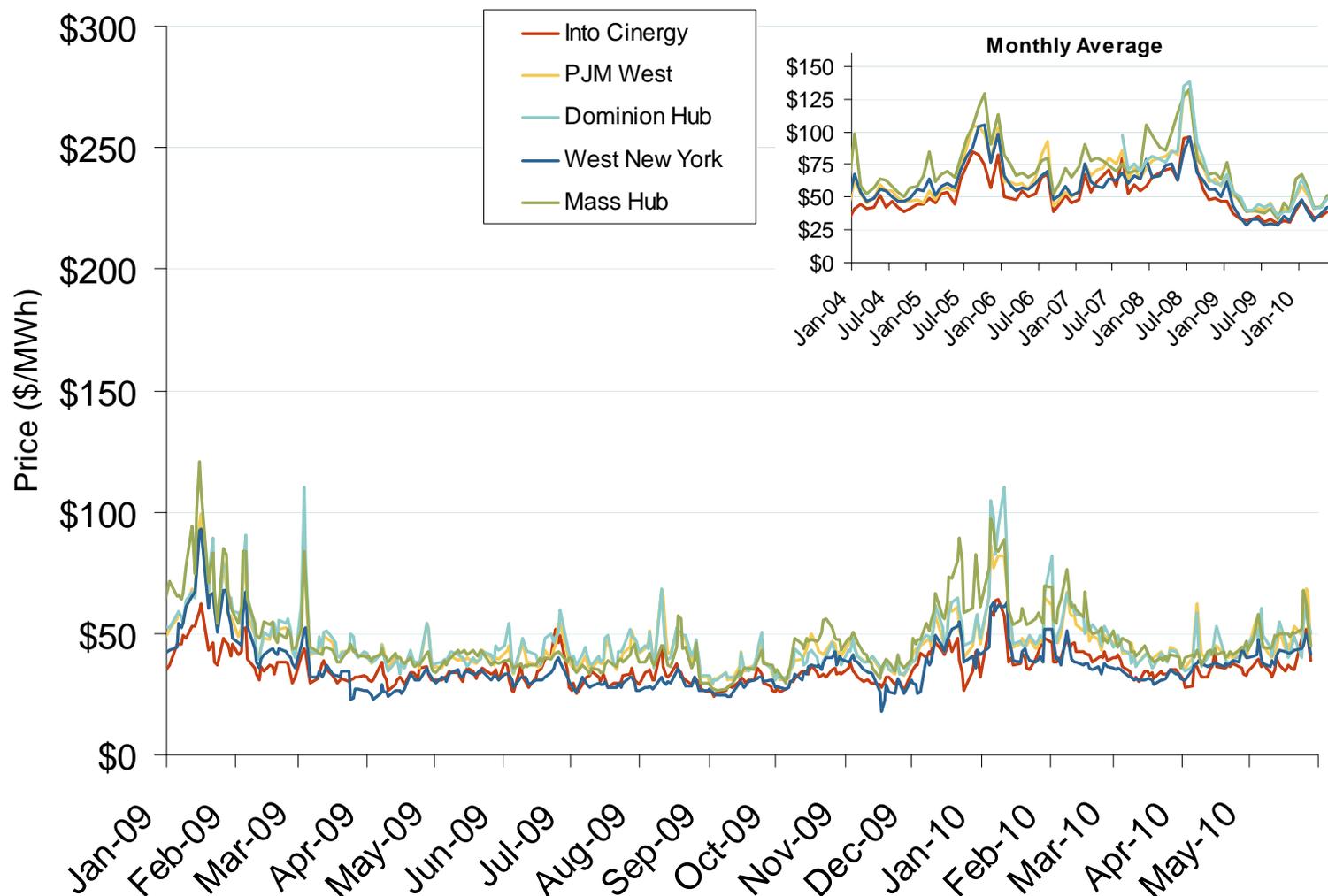
Daily Average of NYISO Day-Ahead Prices - All Hours



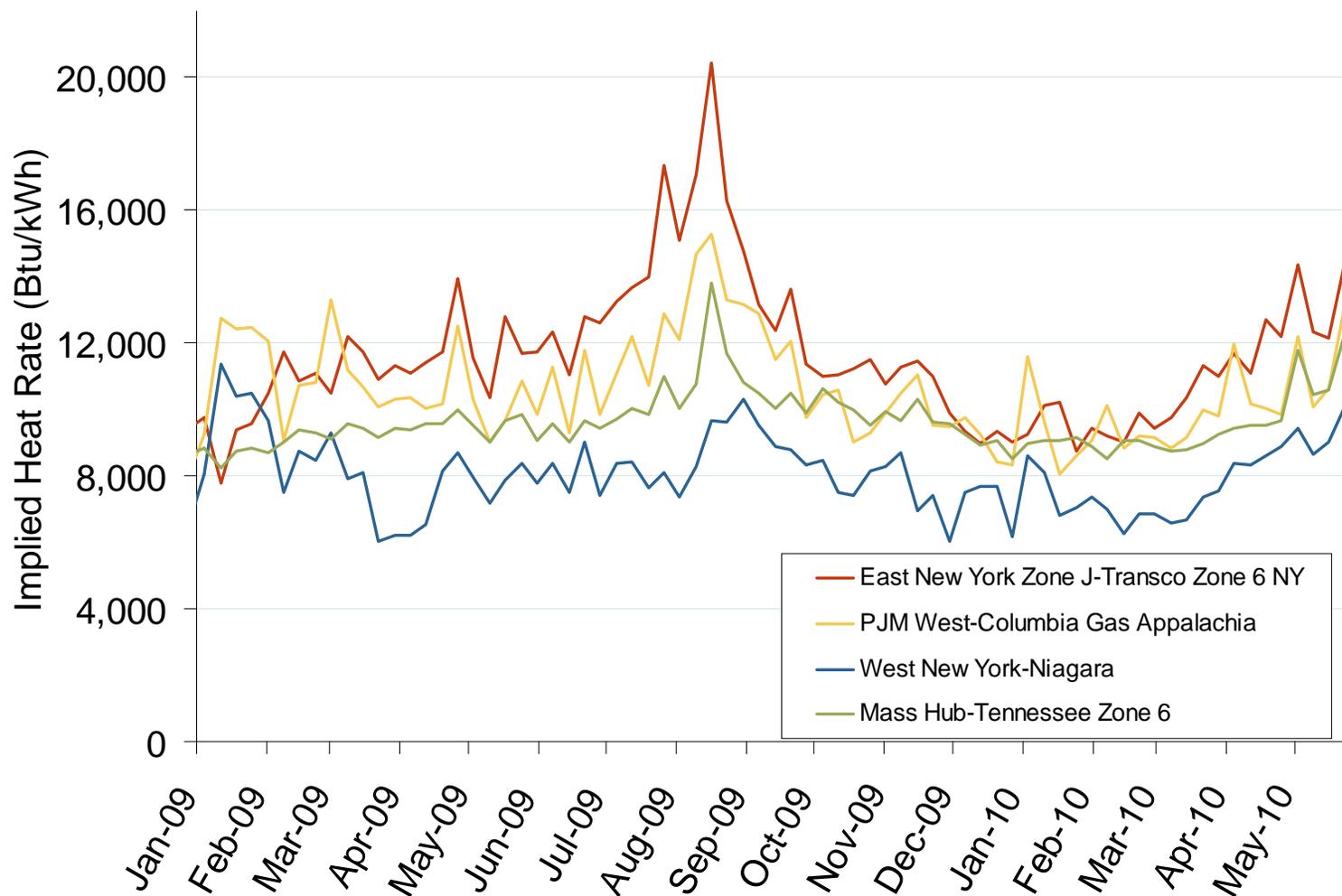
Daily Average of NYISO Day-Ahead Prices - All Hours



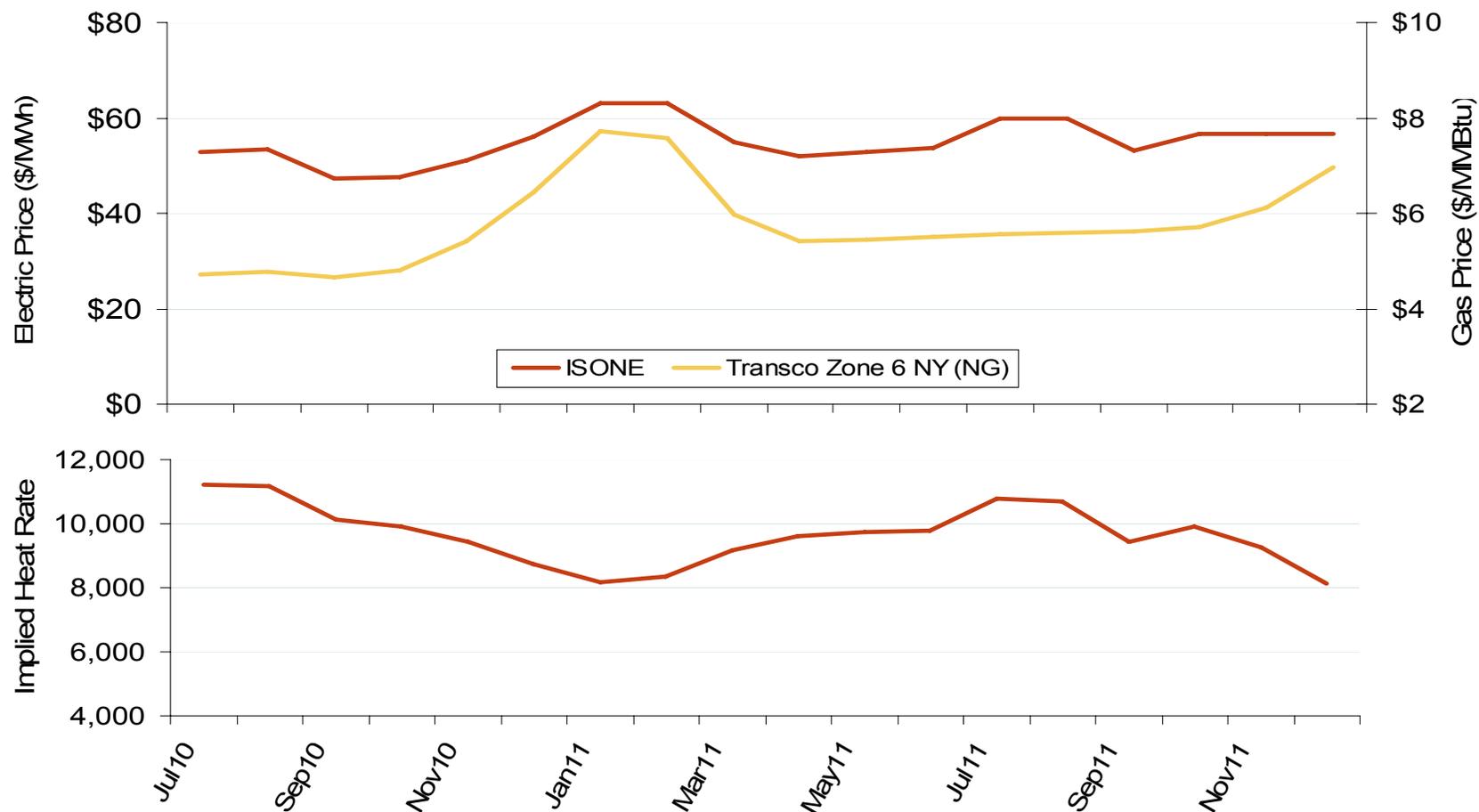
Eastern Daily Bilateral Day-Ahead On-Peak Prices



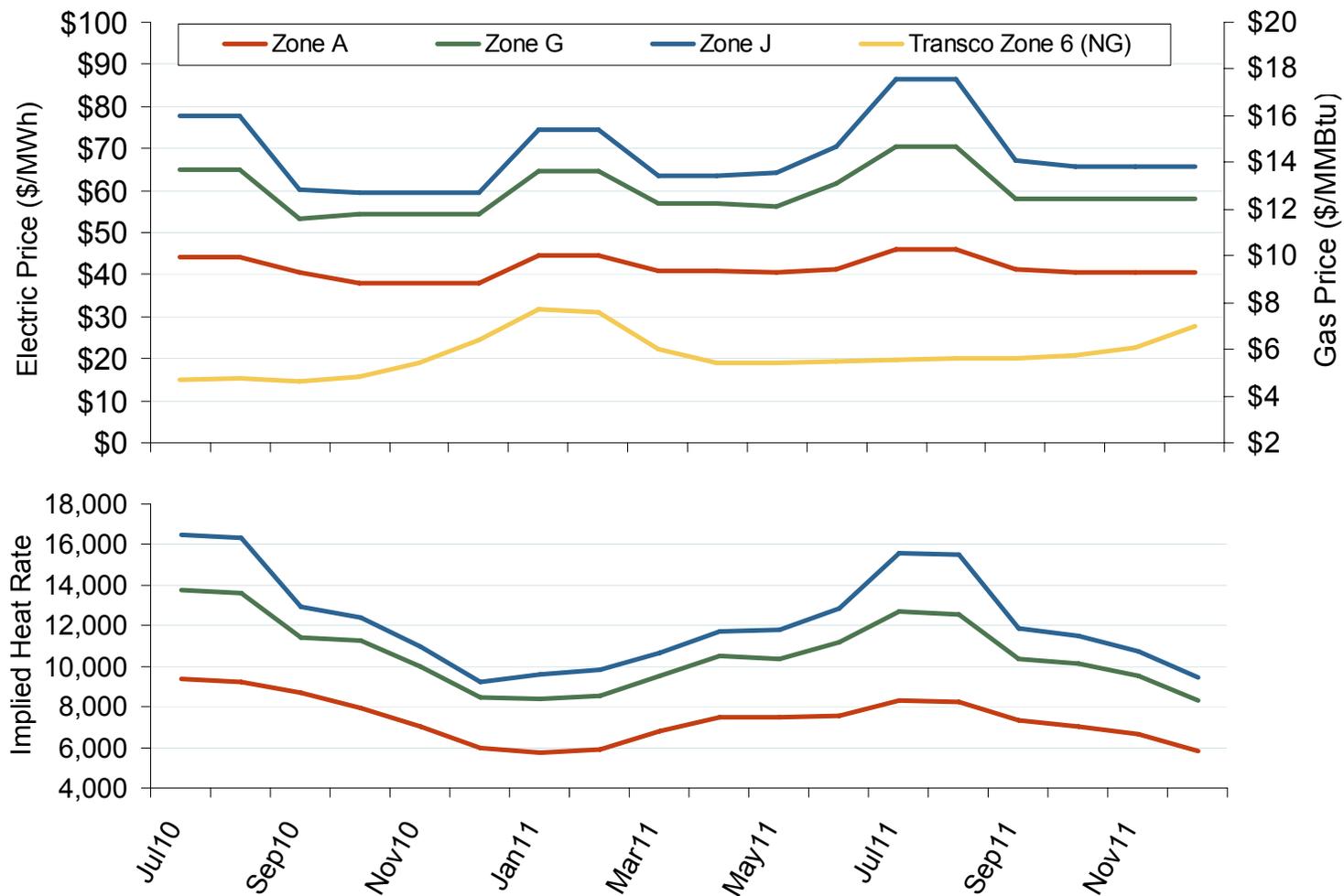
Implied Heat Rates at Eastern Trading Points Weekly Averages



New England Electric Forward Price Curve and Implied Heat Rate

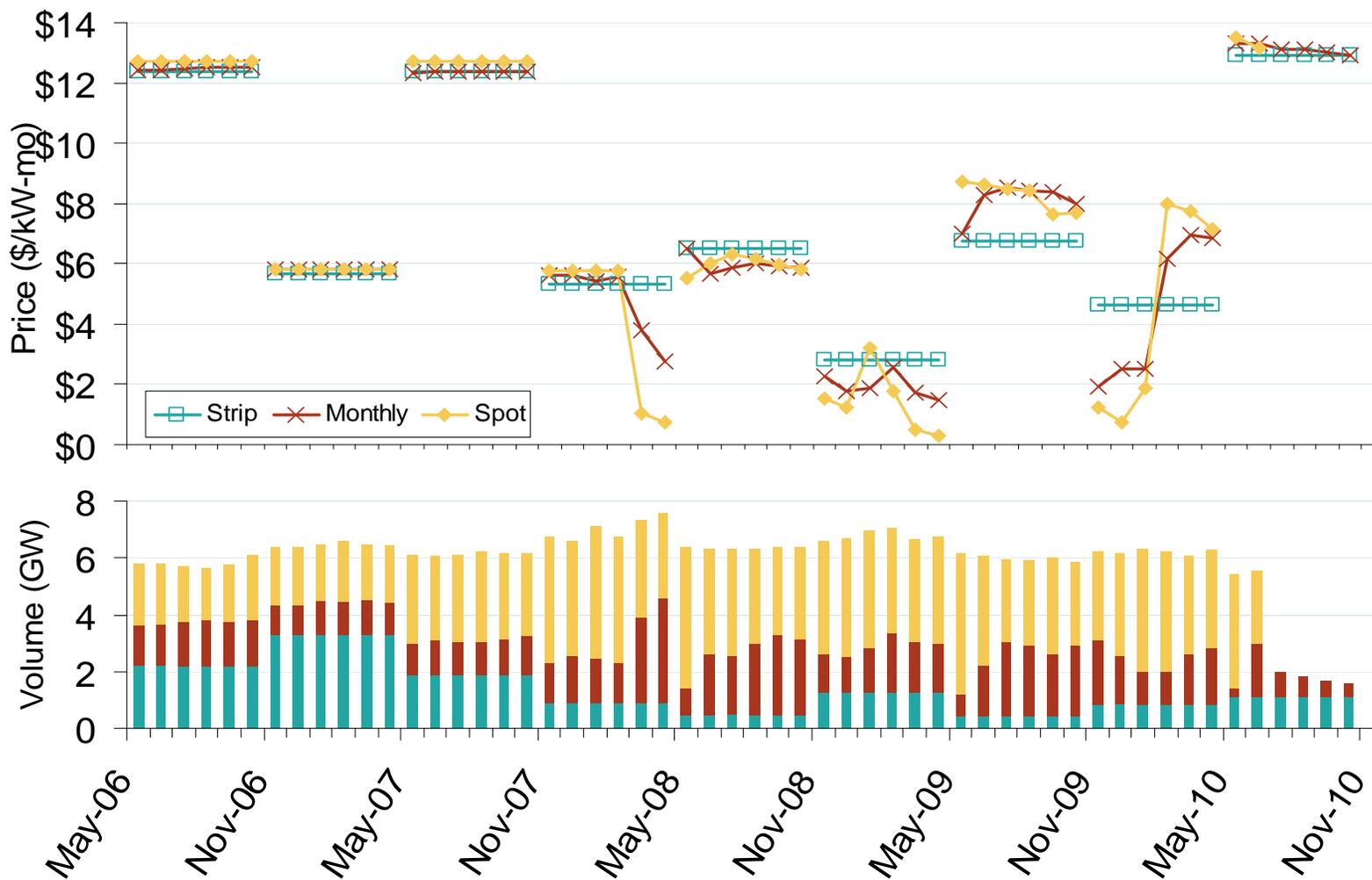


New York Electric Forward Price Curves and Implied Heat Rates



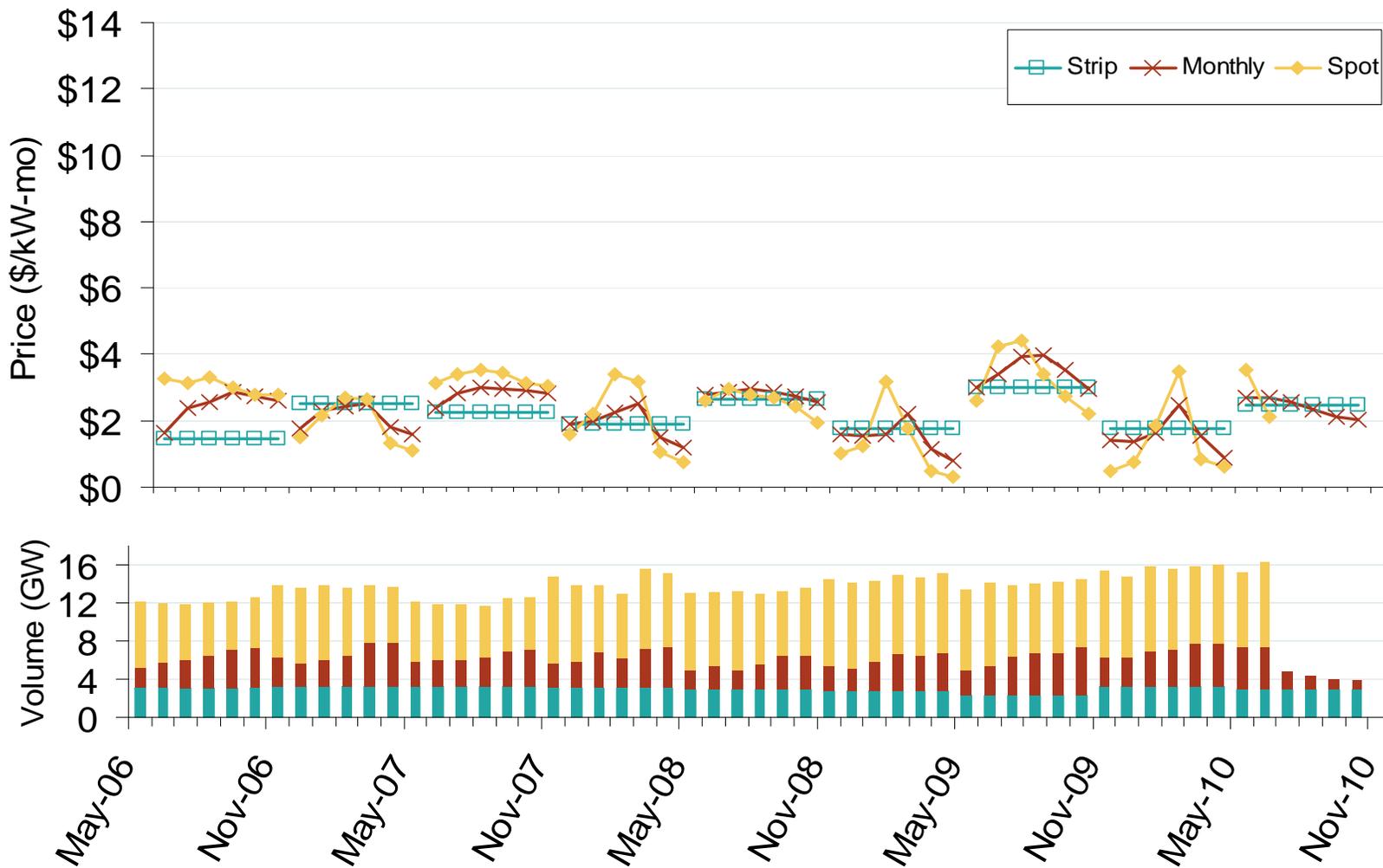
Source: Derived from Nymex data.
June 2010 Northeast Snapshot Report

Weighted Average ICAP Clearing Prices and Volumes: New York City



Source: Derived from NYISO data.
June 2010 Northeast Snapshot Report

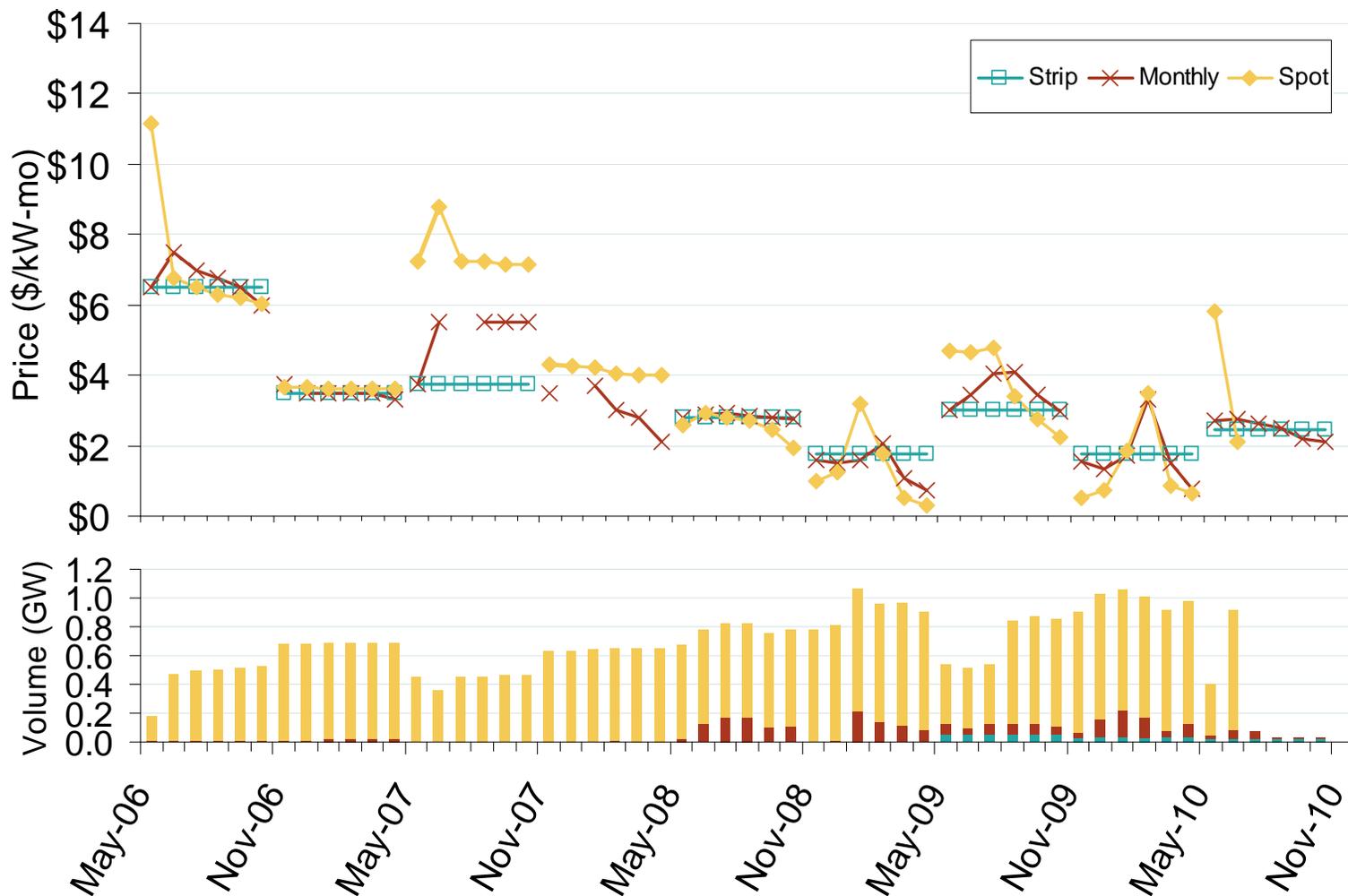
Weighted Average ICAP Clearing Prices and Volumes: Rest of New York State



Source: Derived from NYISO data.
June 2010 Northeast Snapshot Report

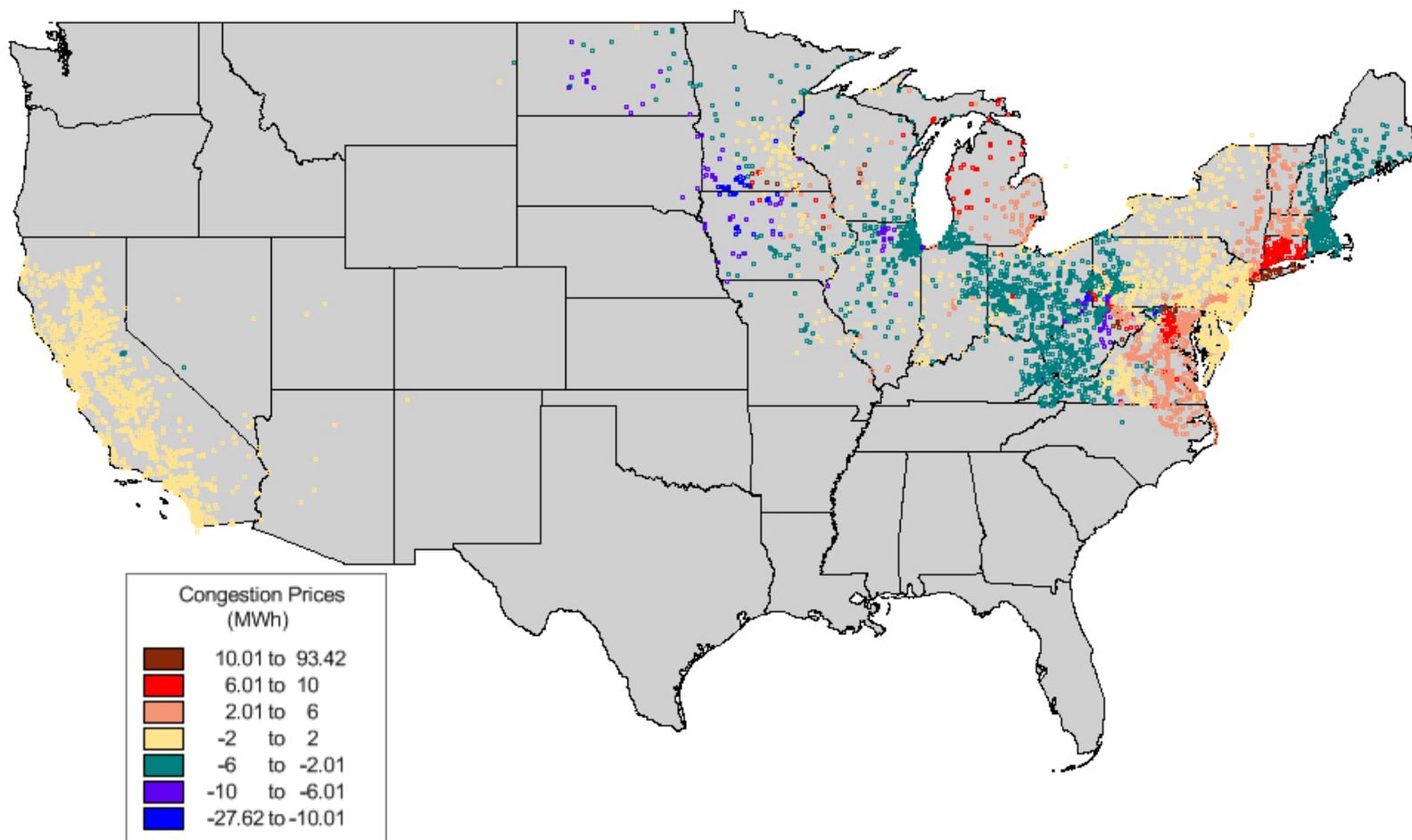
Updated June 7, 2010

Weighted Average ICAP Clearing Prices and Volumes: Long Island



Source: Derived from NYISO data.
June 2010 Northeast Snapshot Report

Day Ahead On-Peak Congestion Average Monthly Prices May 2010



2009 Northeast Coordinated System Plan

- ISO-NE, NYISO and PJM releases report highlighting efforts to strengthen seams
- Report identifies several studies conducted to ensure existing and planned transmission not jeopardizing reliability or producing congestion across the Northeast and mid-Atlantic United States
- Report states projects represent enough generation to meet states' short-term RPS goals
- Through Joint ISO/RTO Planning Committee, operators have shared information related to:
 - Analyses on transmission upgrades
 - Interconnection queues
 - Cross-border security
 - Market efficiencies
 - Effects of new environmental regulation
- Much remains to be done to further advance and enhance inter-regional planning for the Northeast
- See http://www.iso-ne.com/committees/comm_wkgrps/othr/ipsac/ncsp/index.html

Source: ISO-NE

Renewable Portfolio Provisions for Solar and Distributed Generation

16 States and D.C. use Set-asides or Multipliers to Encourage these Technologies

WA: double-credit for DG

OR: 20 MW PV by 2020;
* 2 utility PV credit

CA: 3 GW, including 1,940 MW distributed solar by 2016

NV: 1.5% solar by 2025
* 2.4 central PV;
* 2.45 distributed PV

UT: * 2.4 solar multiplier

CO: 3% DG by 2020
1.5% customer cited

AZ: 4.5% DG by 2025;
half residential

NM: 4% solar-electric,
0.6% DG by 2020

TX: double-credit for non-wind;
non-wind goal – 500 MW

MO: 0.3% solar-electric by 2021

IL: 1.5% solar PV by 2025

MI: triple credit for solar-electric

OH: 0.5% solar-electric by 2025

NH: 0.3% solar-electric by 2014

NY: customer-sited is 7% of RPS increments, 0.5% of 2015 sales

MA: 400 MW PV by 2020

RI: 3 MW solar by 2013

NJ: 5,316 GWh solar-electric by 2026

PA: 0.5% PV by 2020

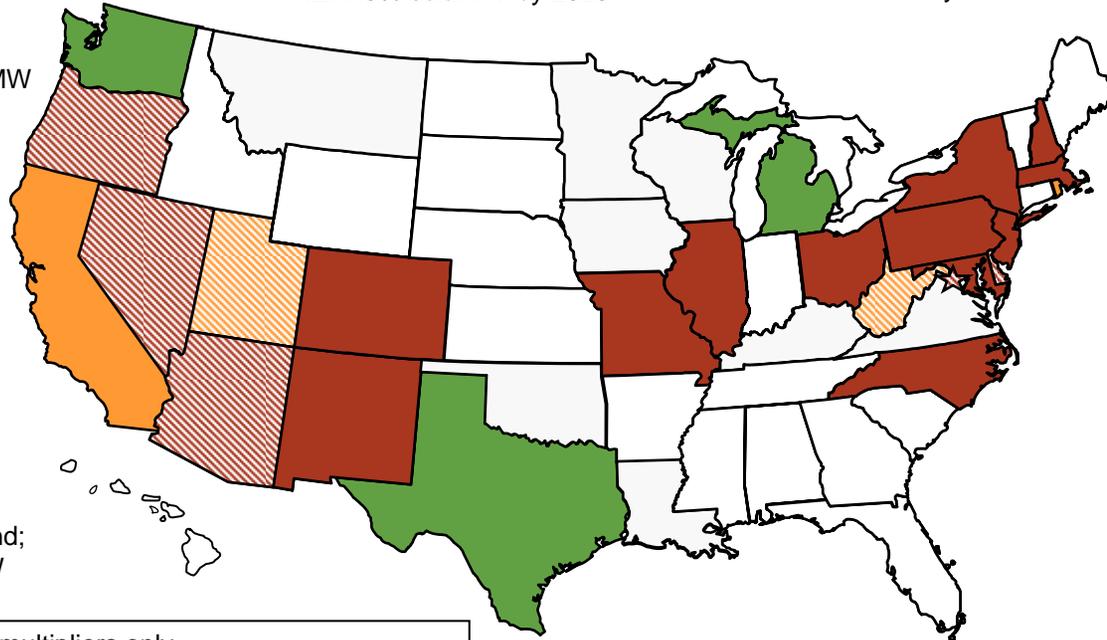
WV: various multipliers

DE: 2.005% PV by 2019;
* 3 PV credit

DC: 0.4% solar by 2021 ★

MD: 2% solar-electric in 2022

NC: 0.2% solar by 2018

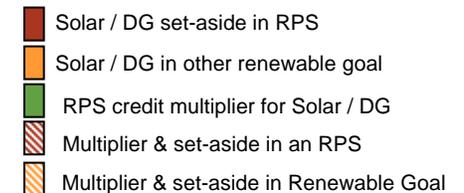


- MI, TX, and WA use RPS multipliers only
- AZ, DC, DE, NV, and OR have RPS set-asides and multipliers
- CA, RI, UT, and WV have solar targets outside an RPS

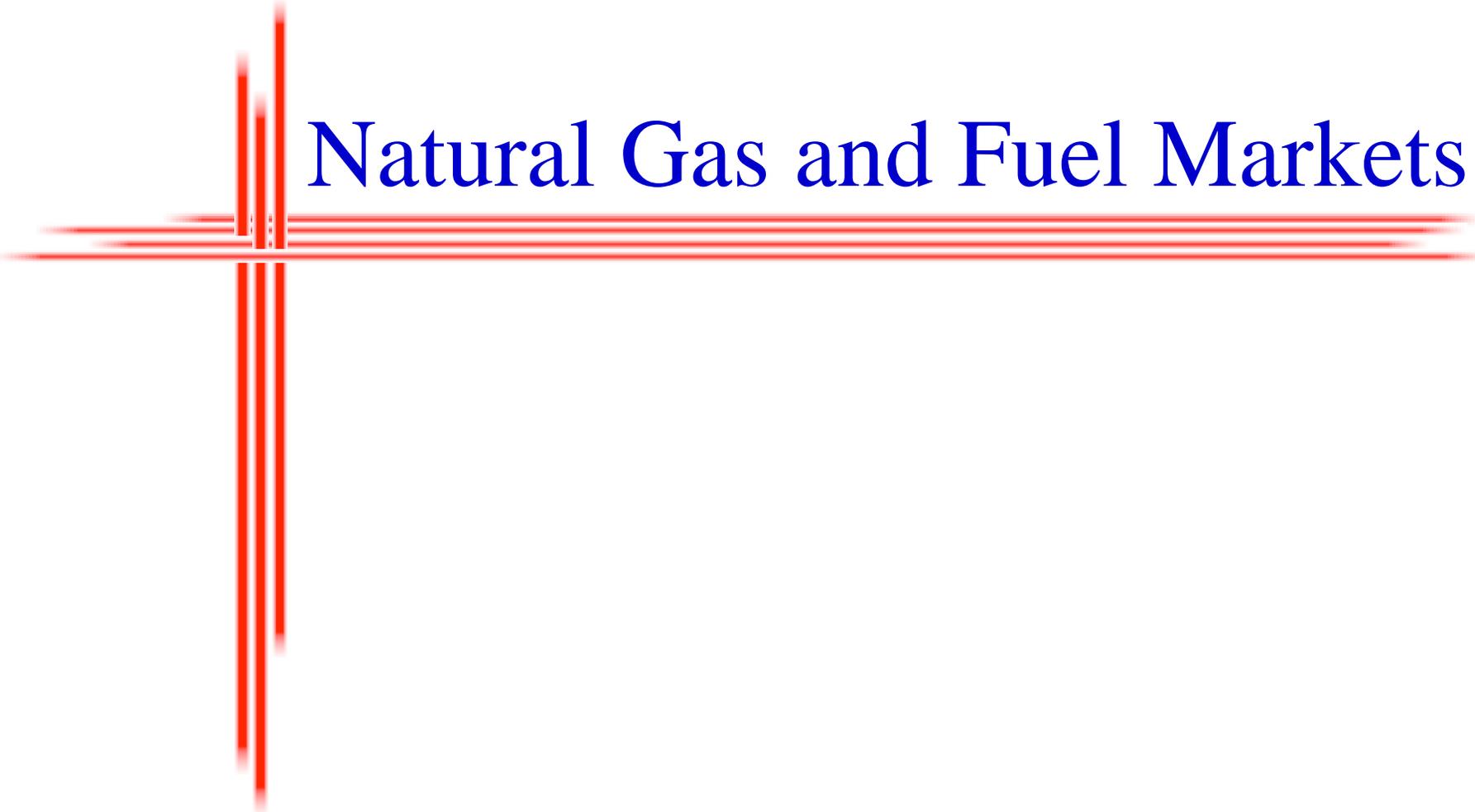
Updates at: <http://www.ferc.gov/market-oversight/othr-mkts/renew/othr-rnw-rps-solar-DG.pdf>

Notes: (*) **Multipliers** receive extra credit towards RPS compliance. **Set-asides** are specific technology targets in an RPS, specified by percent, MW, or MWh. An RPS requires a percent of an electric provider's energy sales (MWh) or installed capacity (MW) to come from renewable resources. Alaska has no RPS.

Abbreviations: DG – distributed generation; PV – solar photo-voltaic; RPS – Renewable Portfolio Standard
Sources: Derived from data in: LBNL, State Legislative and Public Utility web sites, and the Database of State Incentives for Renewables and Energy Efficiency: <http://www.dsireusa.org>

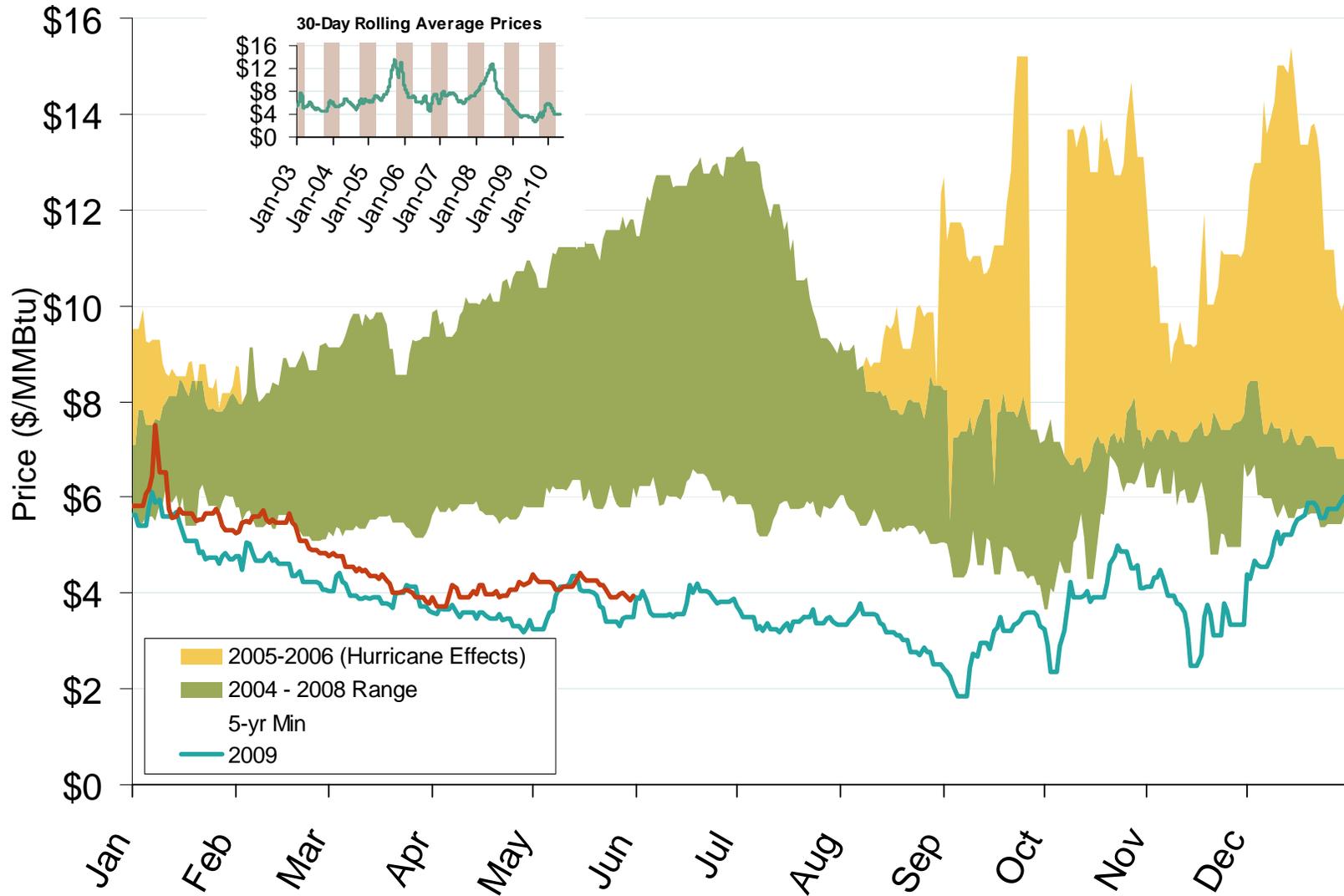


Updated June 3, 2010

A decorative graphic consisting of several thick, parallel red lines. One vertical line runs down the left side of the page, and several horizontal lines cross it, creating a grid-like structure. The lines are slightly blurred and have a glowing effect.

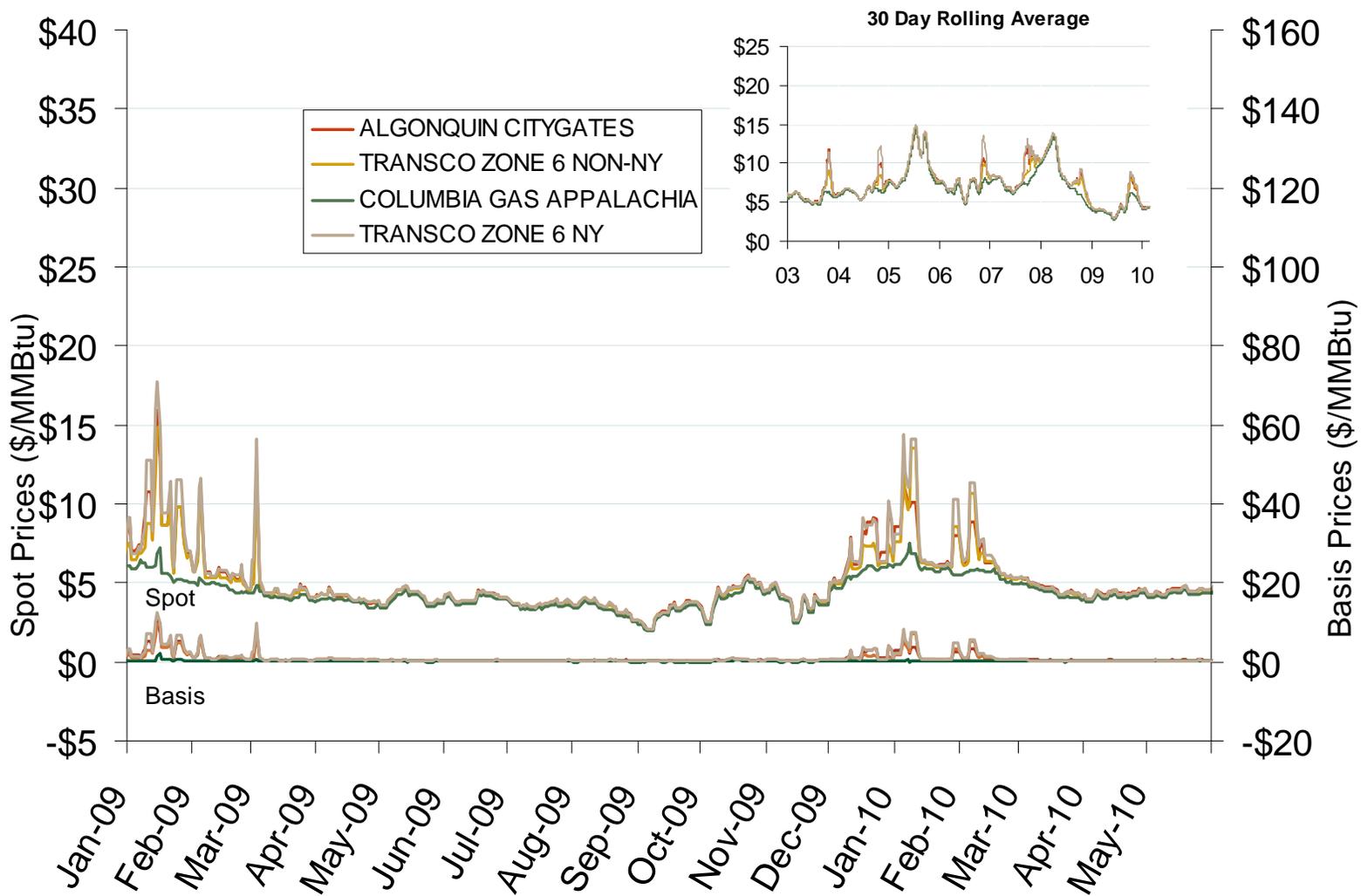
Natural Gas and Fuel Markets

Henry Hub Natural Gas Daily Spot Prices



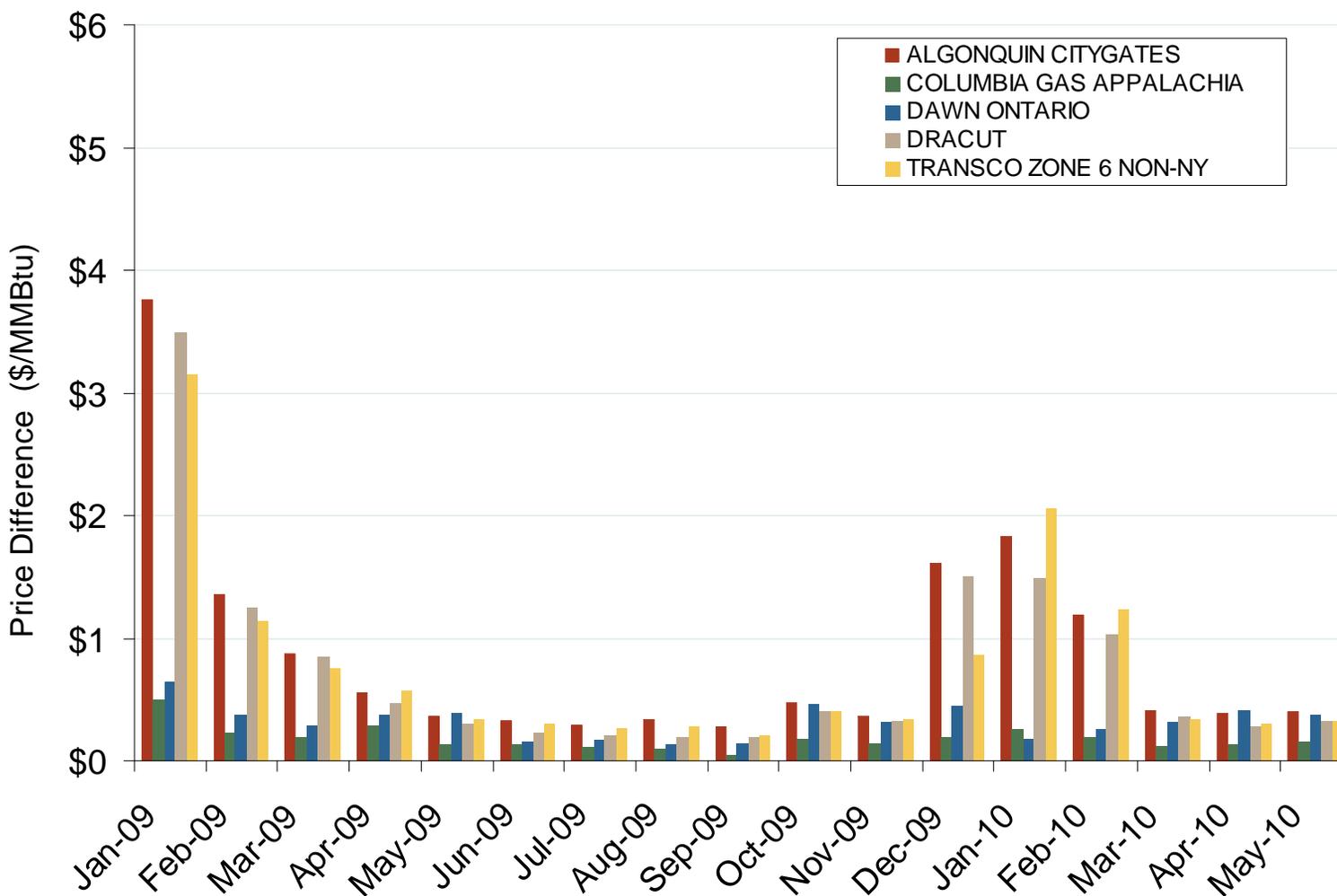
Source: Derived from *Platts* data.
June 2010 Northeast Snapshot Report

Northeastern Spot Prices and Basis

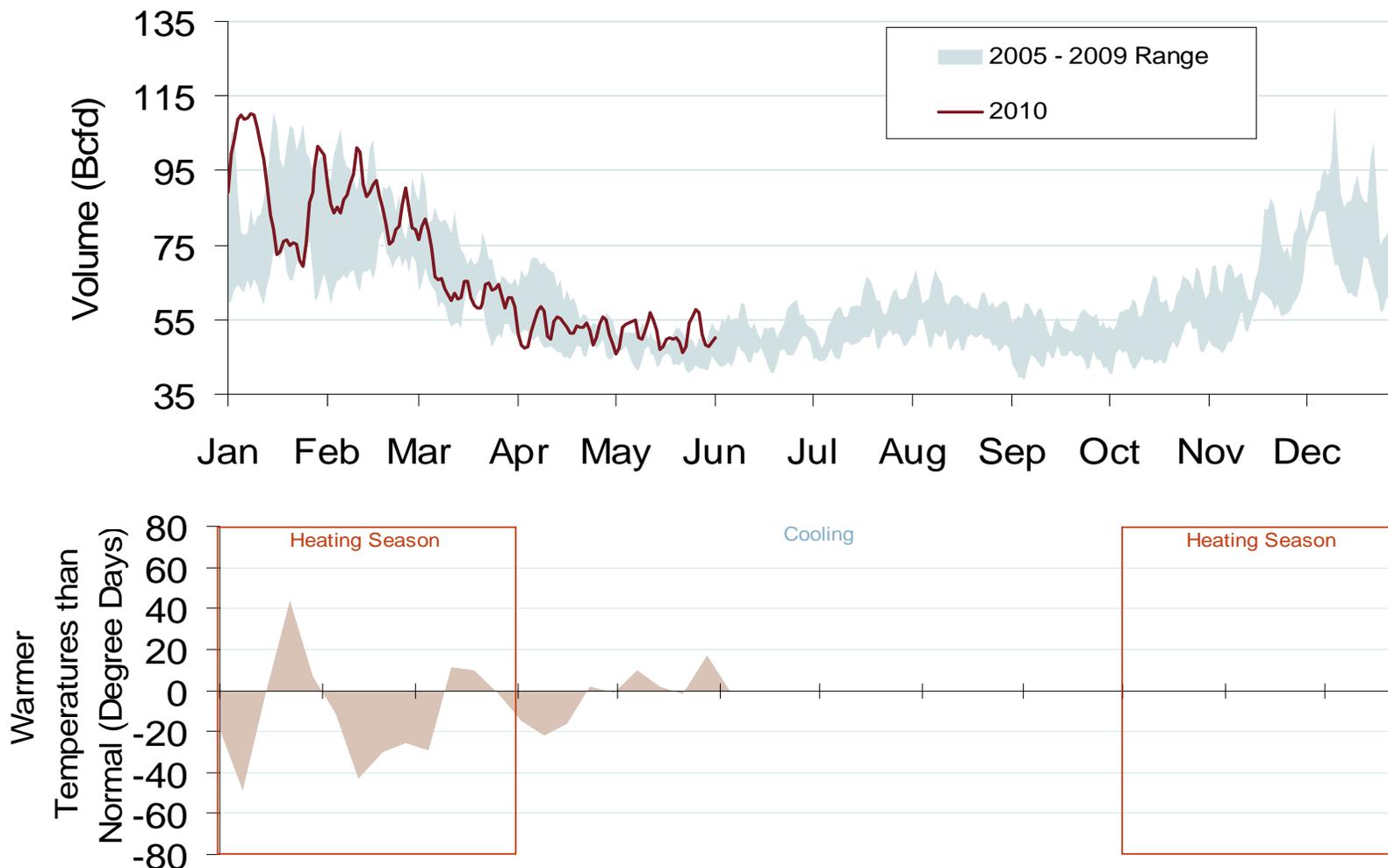


Source: Derived from *Platts* data.

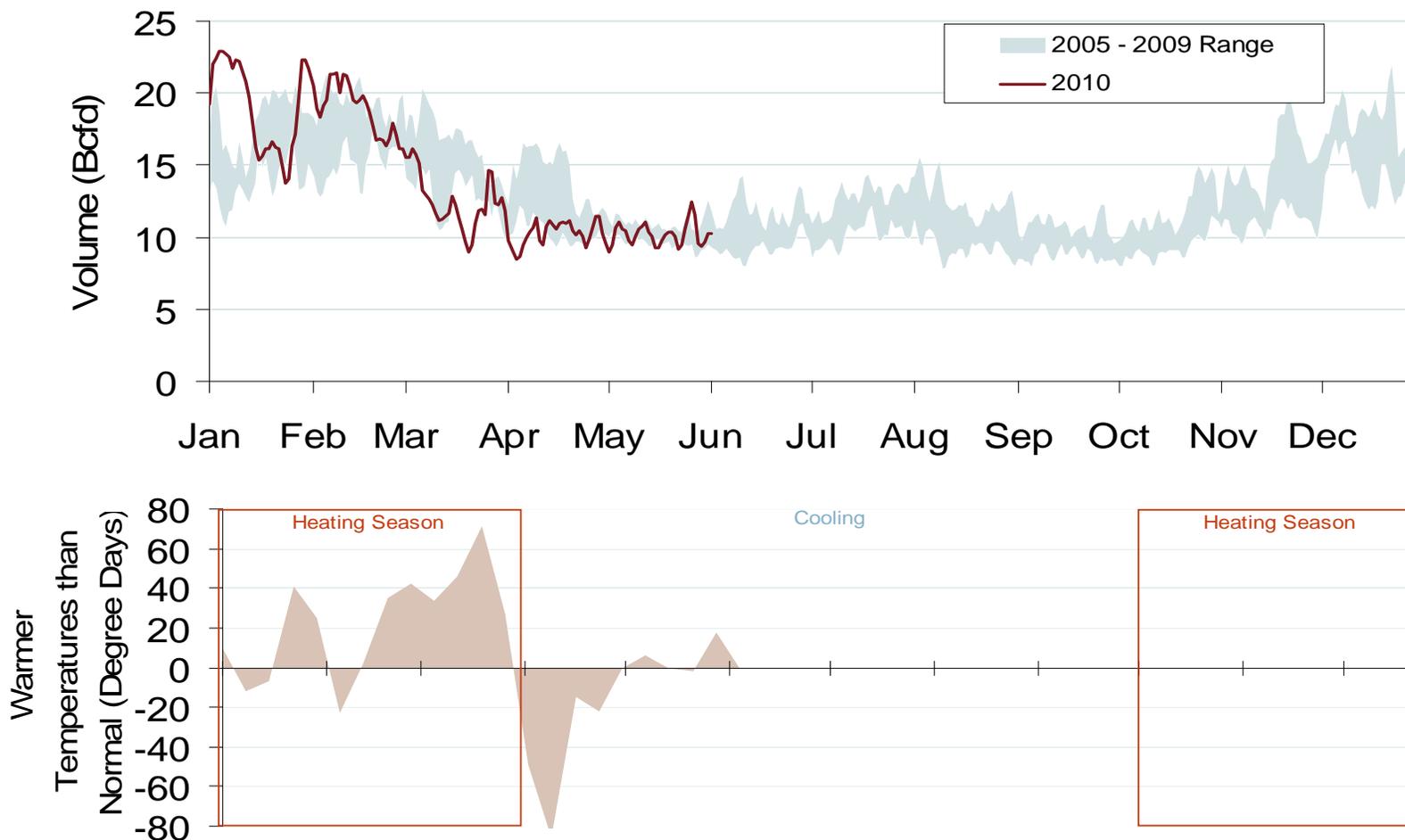
Northeastern Monthly Average Basis Value to Henry Hub



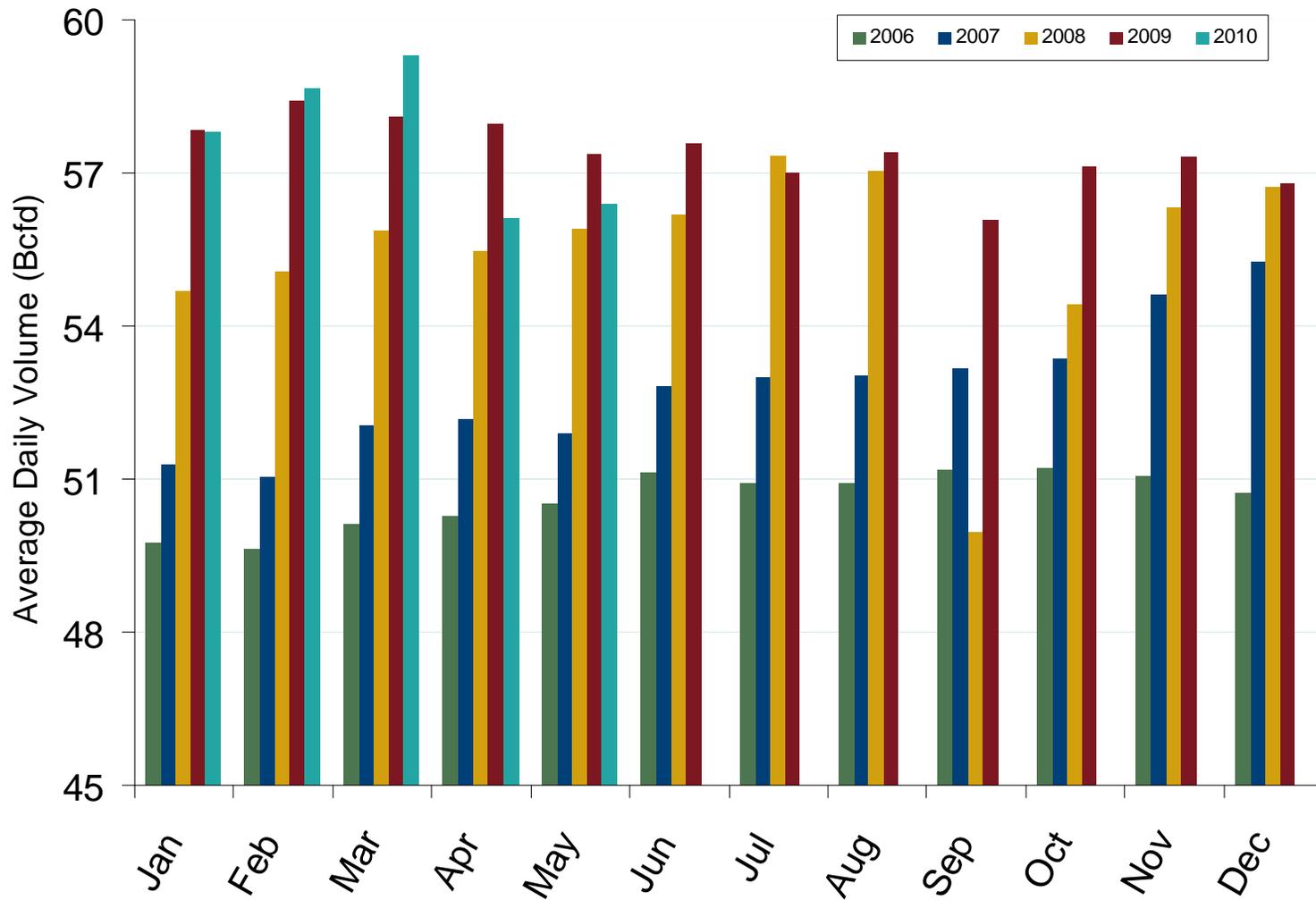
Total U.S. Natural Gas Demand (All Sectors) and Temperatures



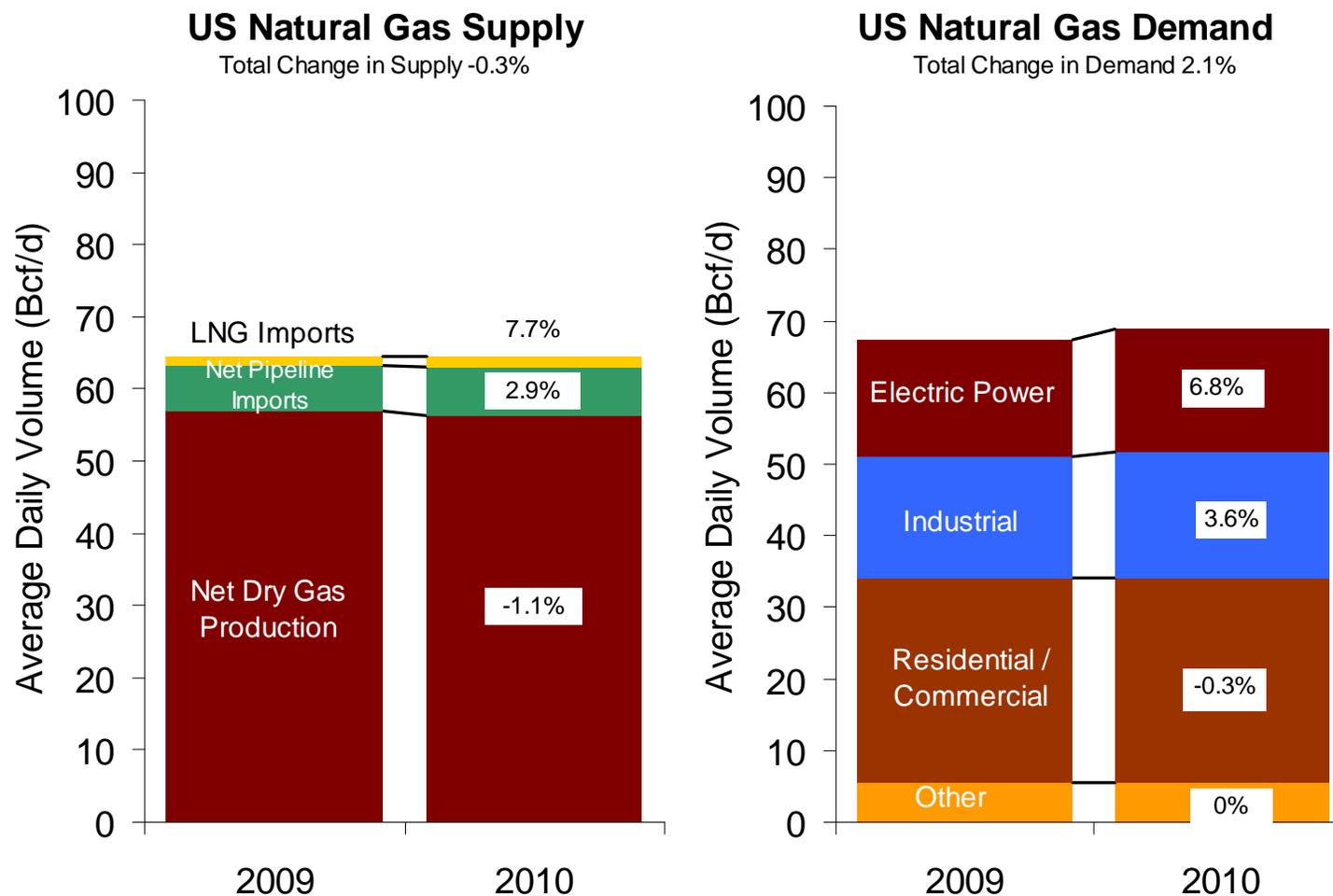
Daily Northeast Natural Gas Demand All Sectors



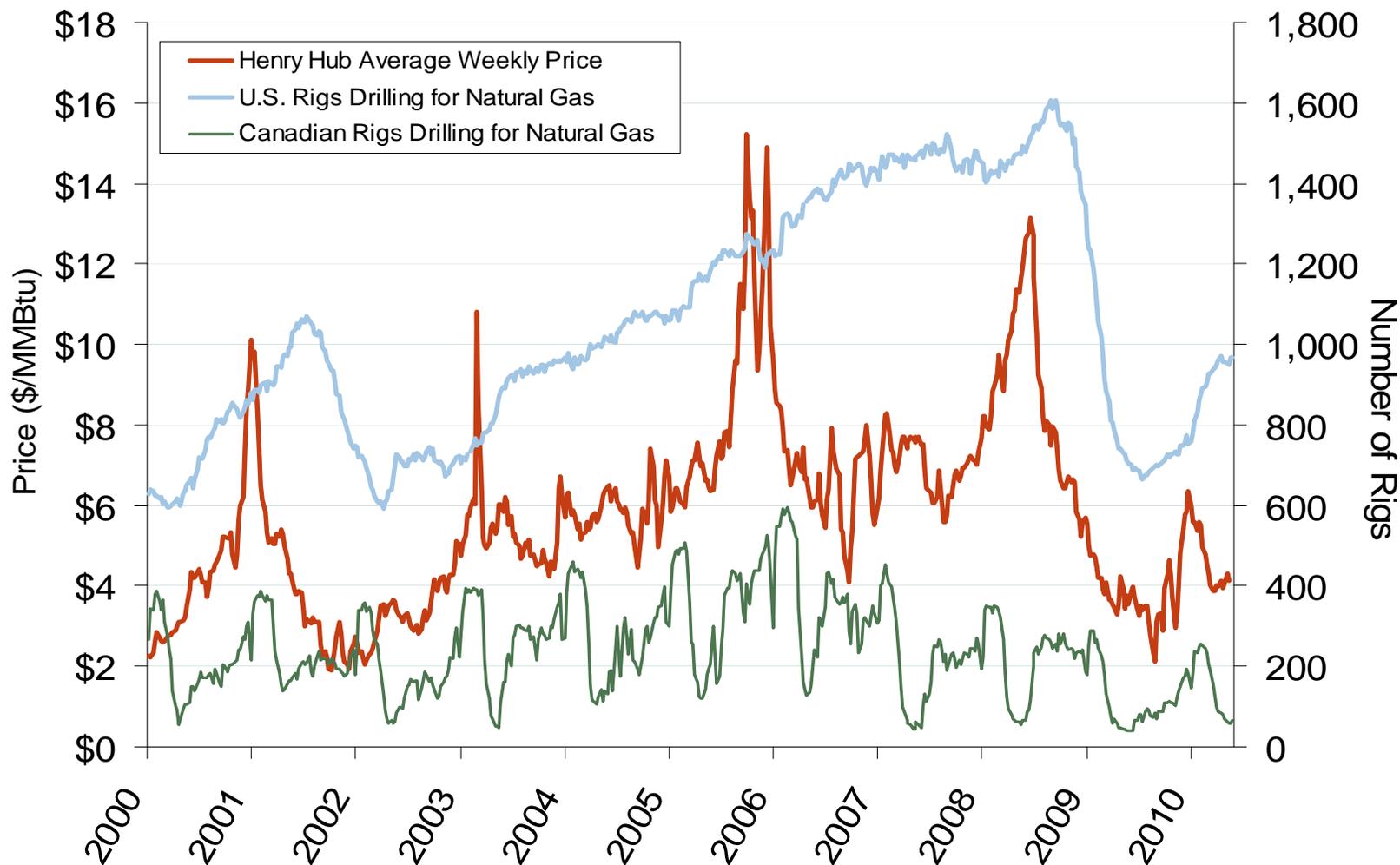
U.S. Dry Gas Production



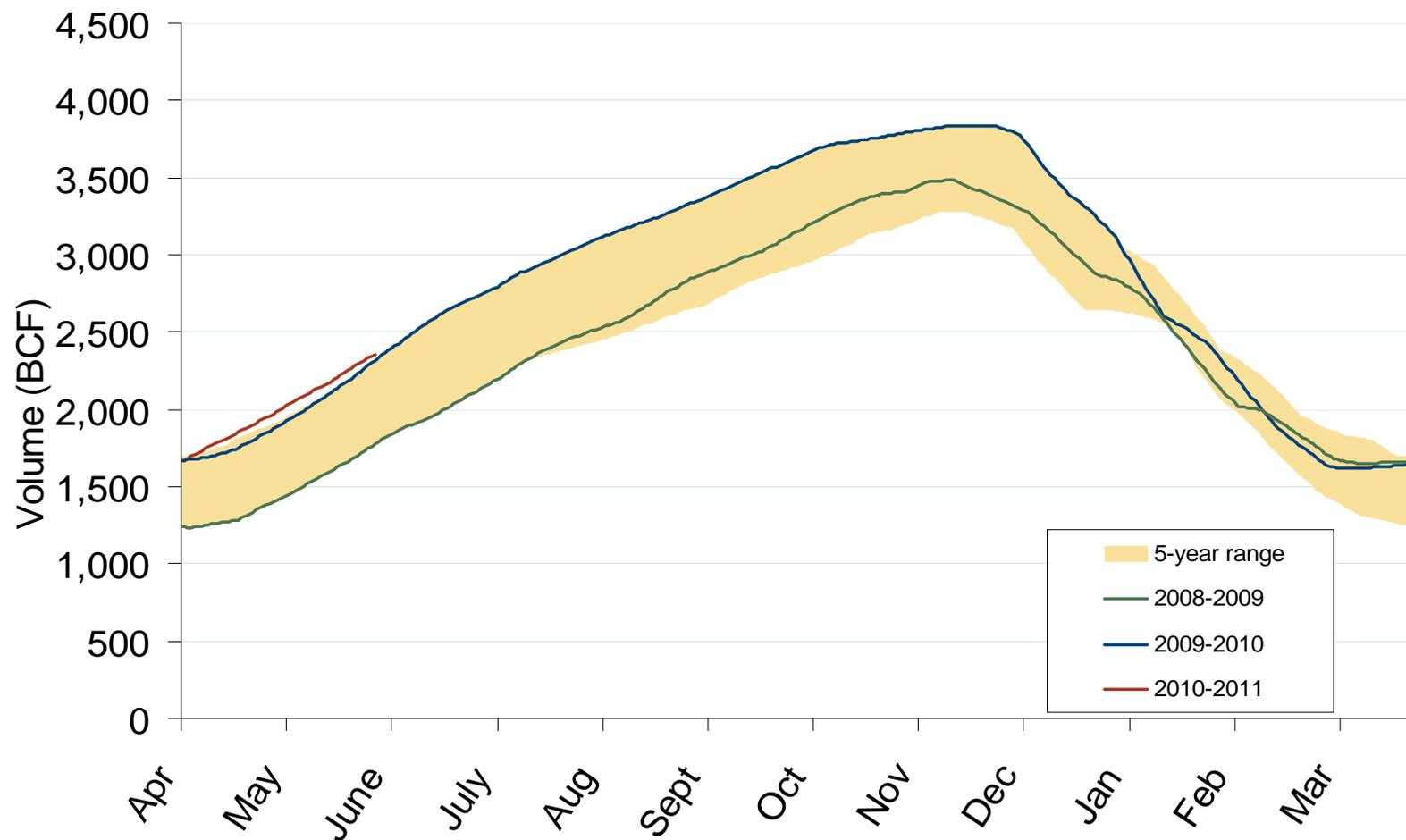
U.S. Natural Gas Supply and Demand 2009 vs. 2010: January - May



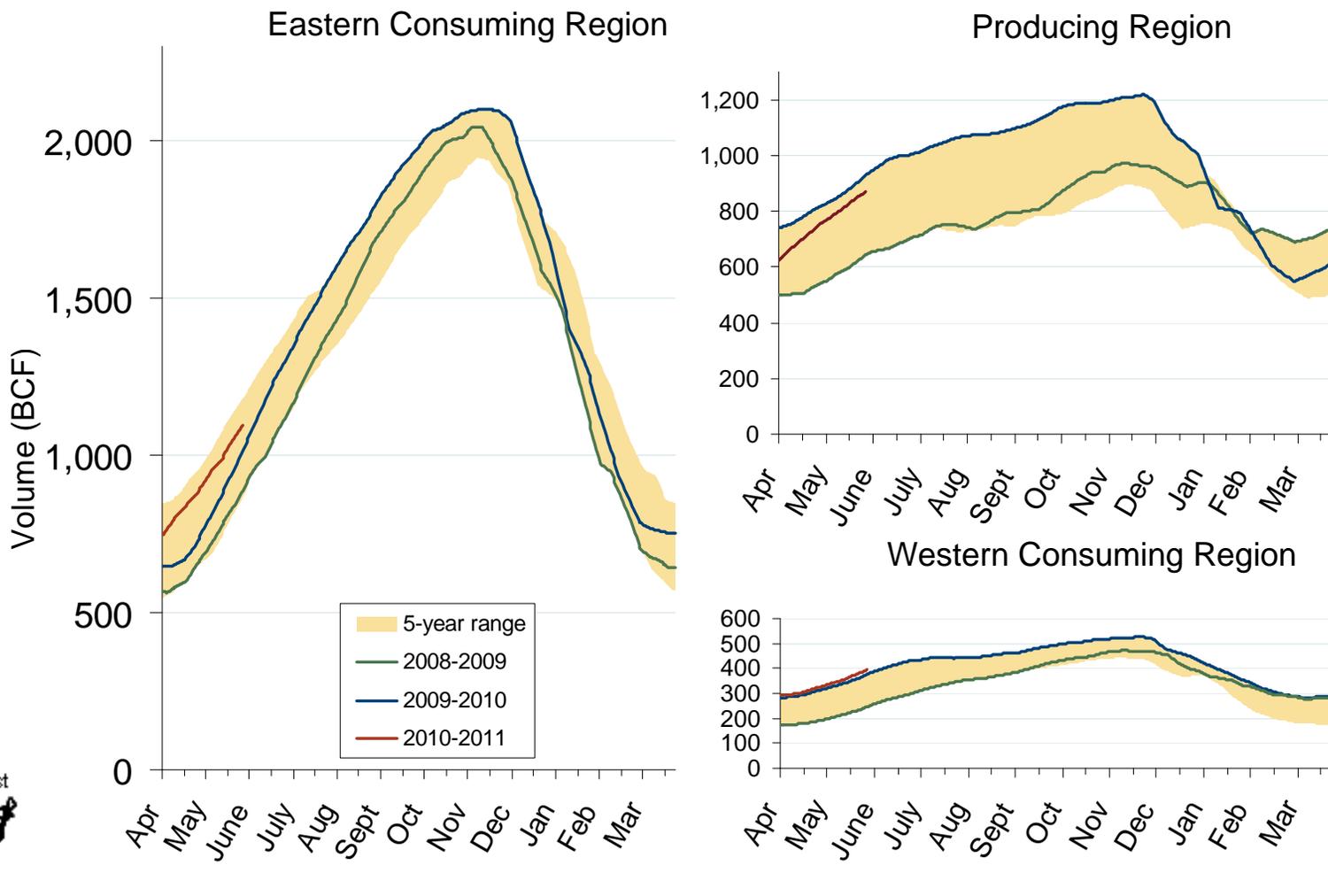
U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



Total U.S. Working Gas in Storage



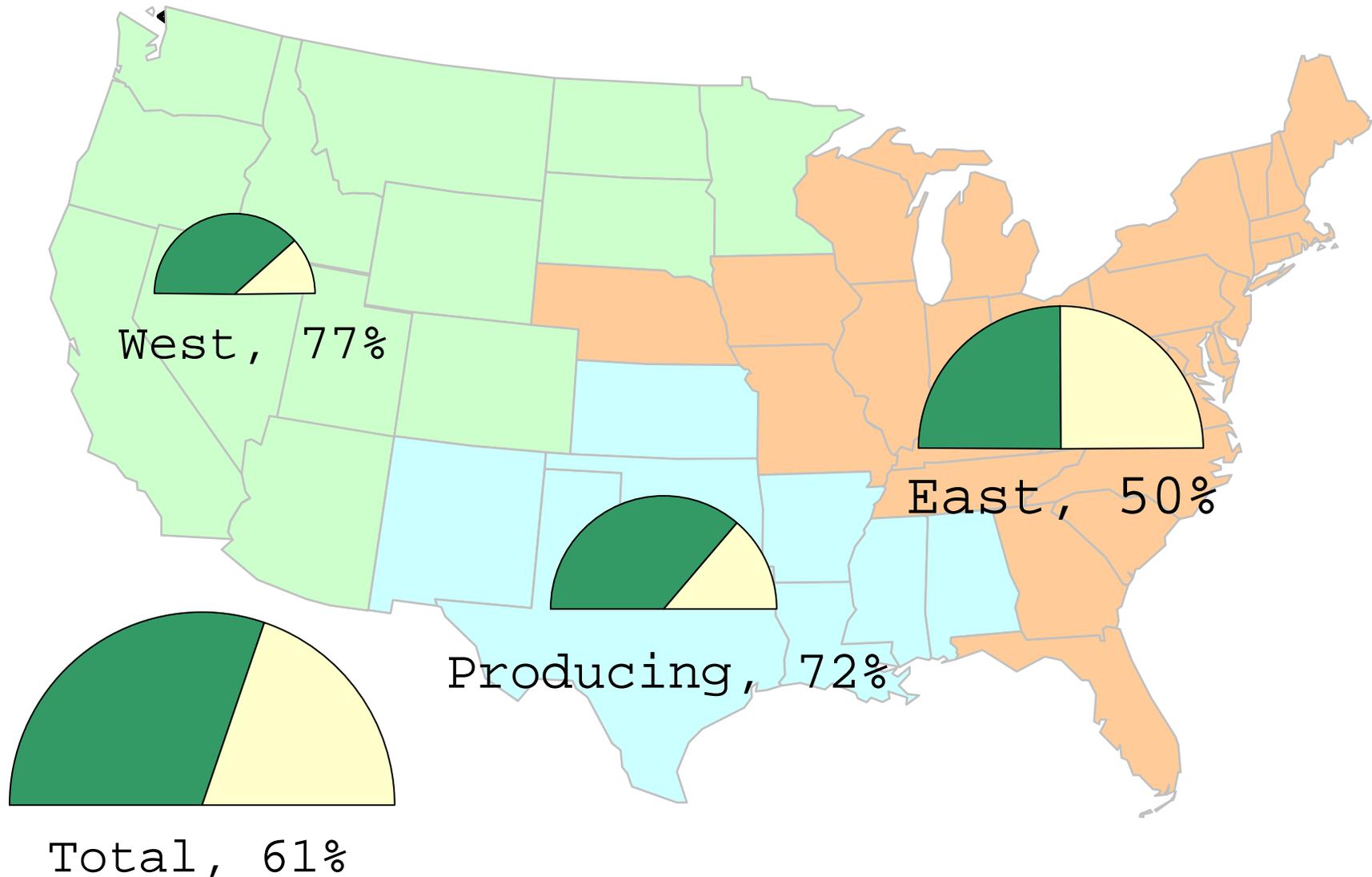
Regional Totals of Working Gas in Storage



Source: Derived from EIA data.
 June 2010 Northeast Snapshot Report

Updated June 7, 2010

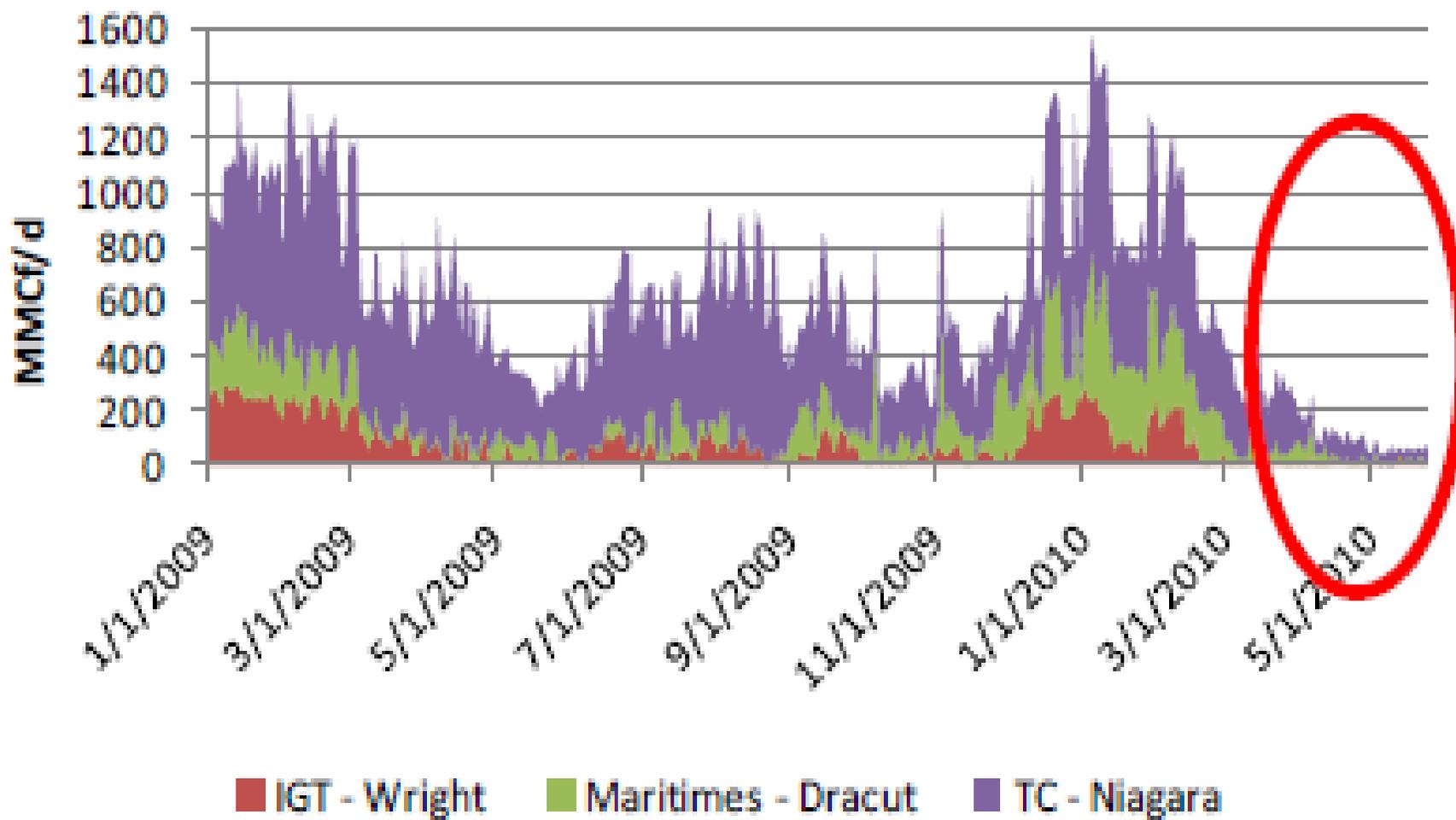
Natural Gas Storage Inventories – % full on May 28, 2010



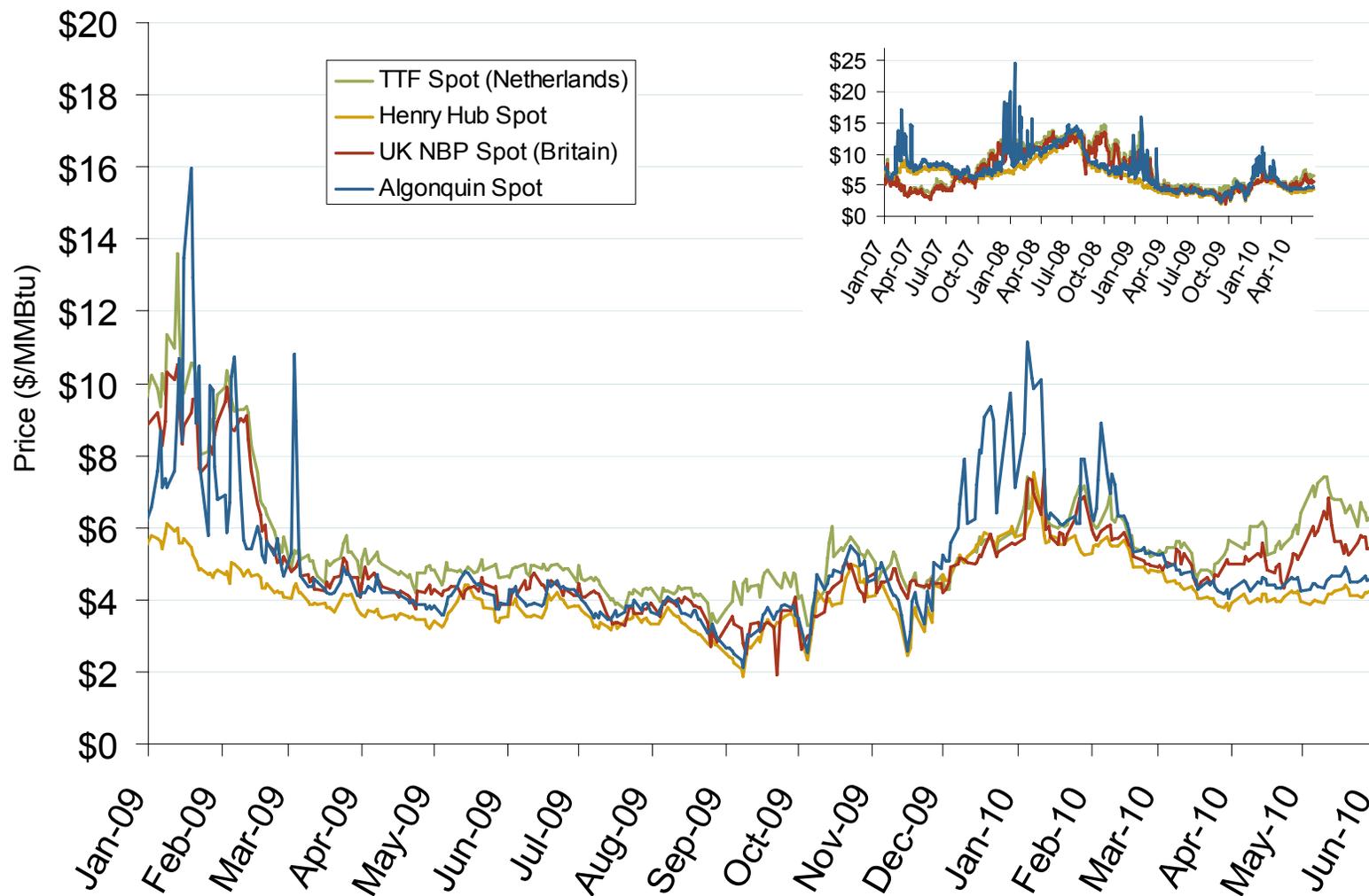
Source: Derived from EIA Storage and Estimated Working Gas Capacity data.
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Updated June 7, 2010

TGP Receipts From Canada



Atlantic Basin European and US Spot Natural Gas Prices



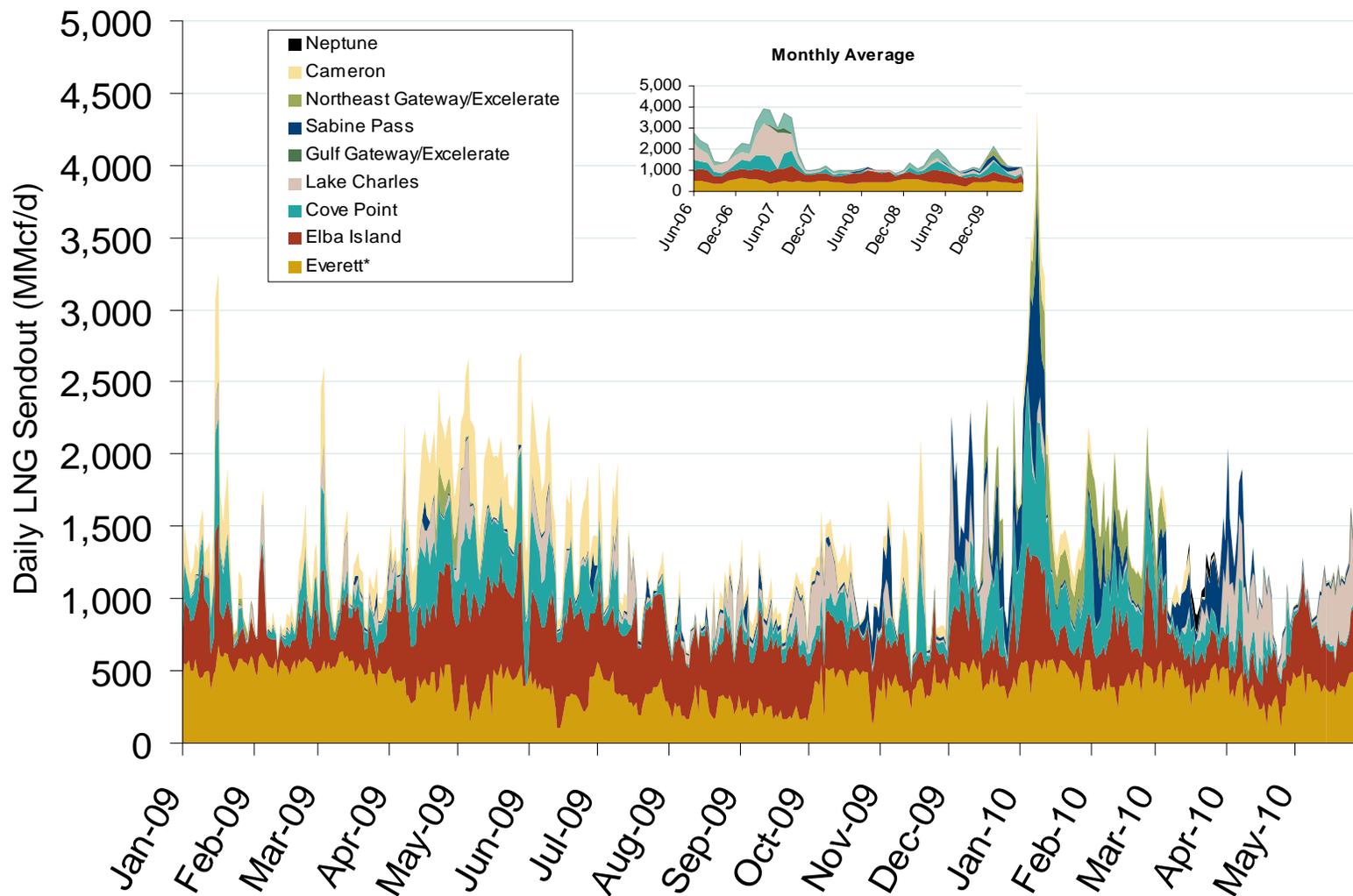
Source: Derived from *Bloomberg* and *ICE* data.
June 2010 Northeast Snapshot Report

Updated June 7, 2010

World LNG Estimated June 2010 Landed Prices



Daily Gas Sendout from Existing U.S. LNG Facilities

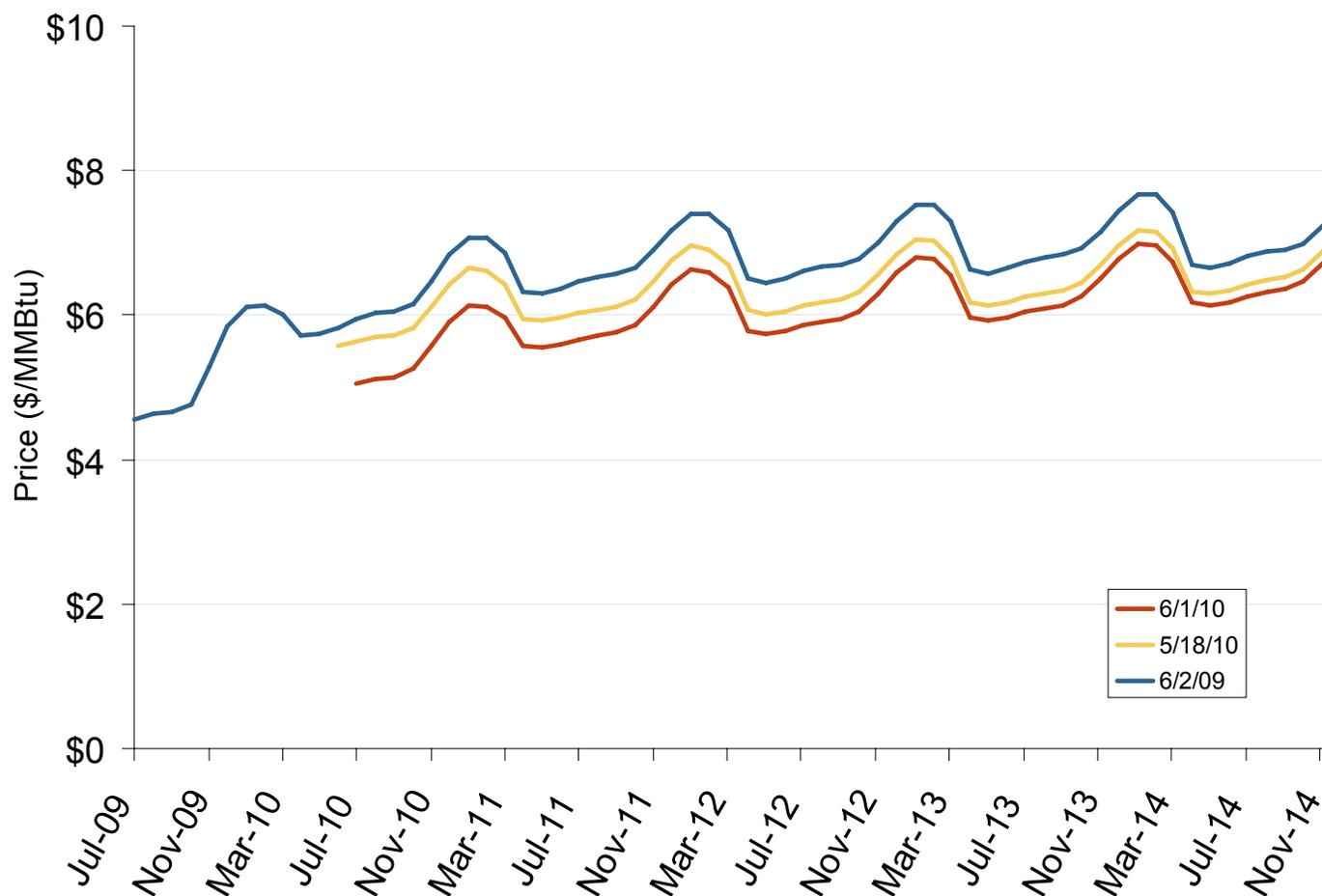


Source: Derived from *Bentek* data.

* 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 Freeport LNG which flows via intrastate pipelines.

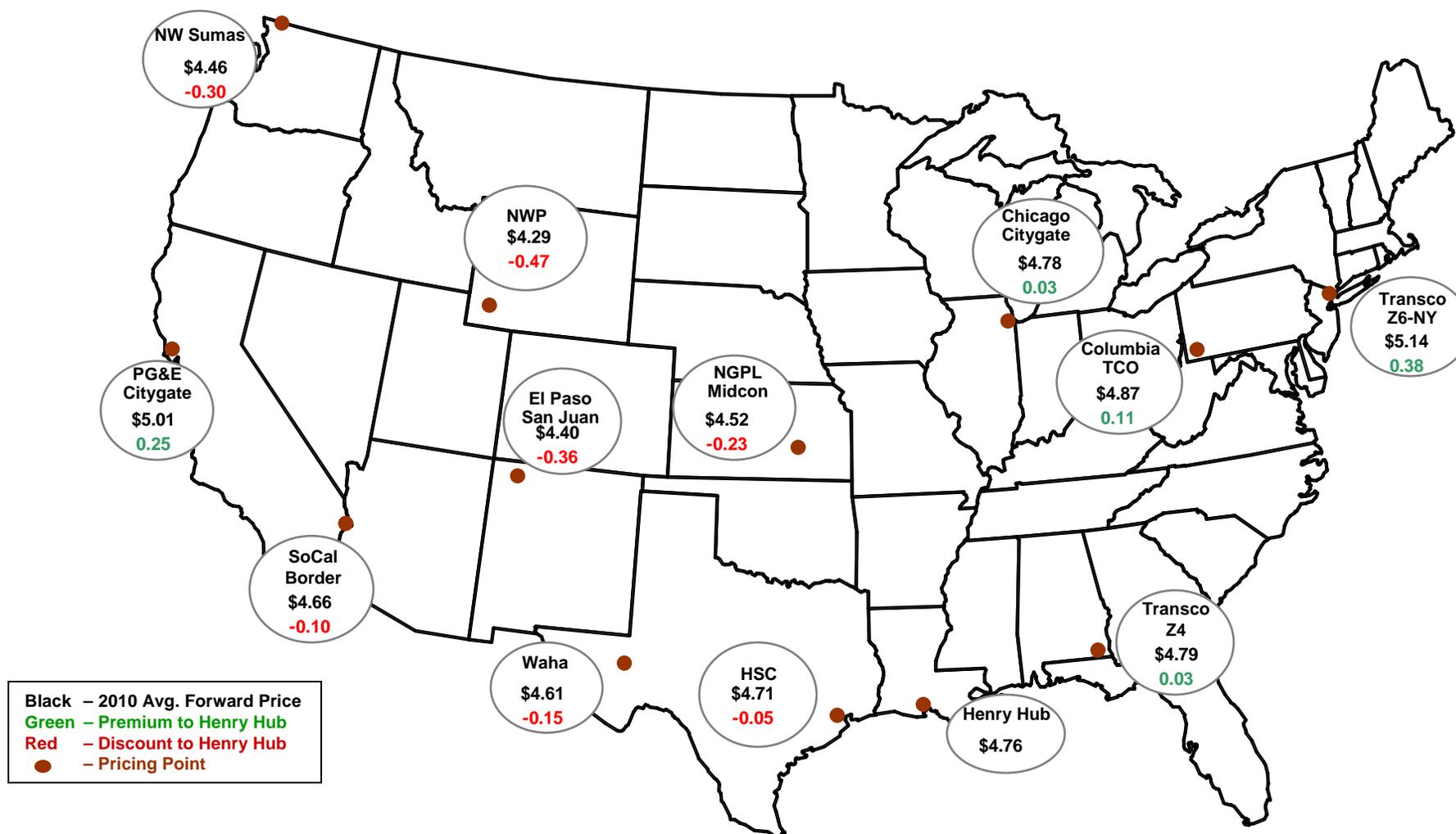
Updated June 7, 2010

NYMEX Natural Gas Forward Price Curve

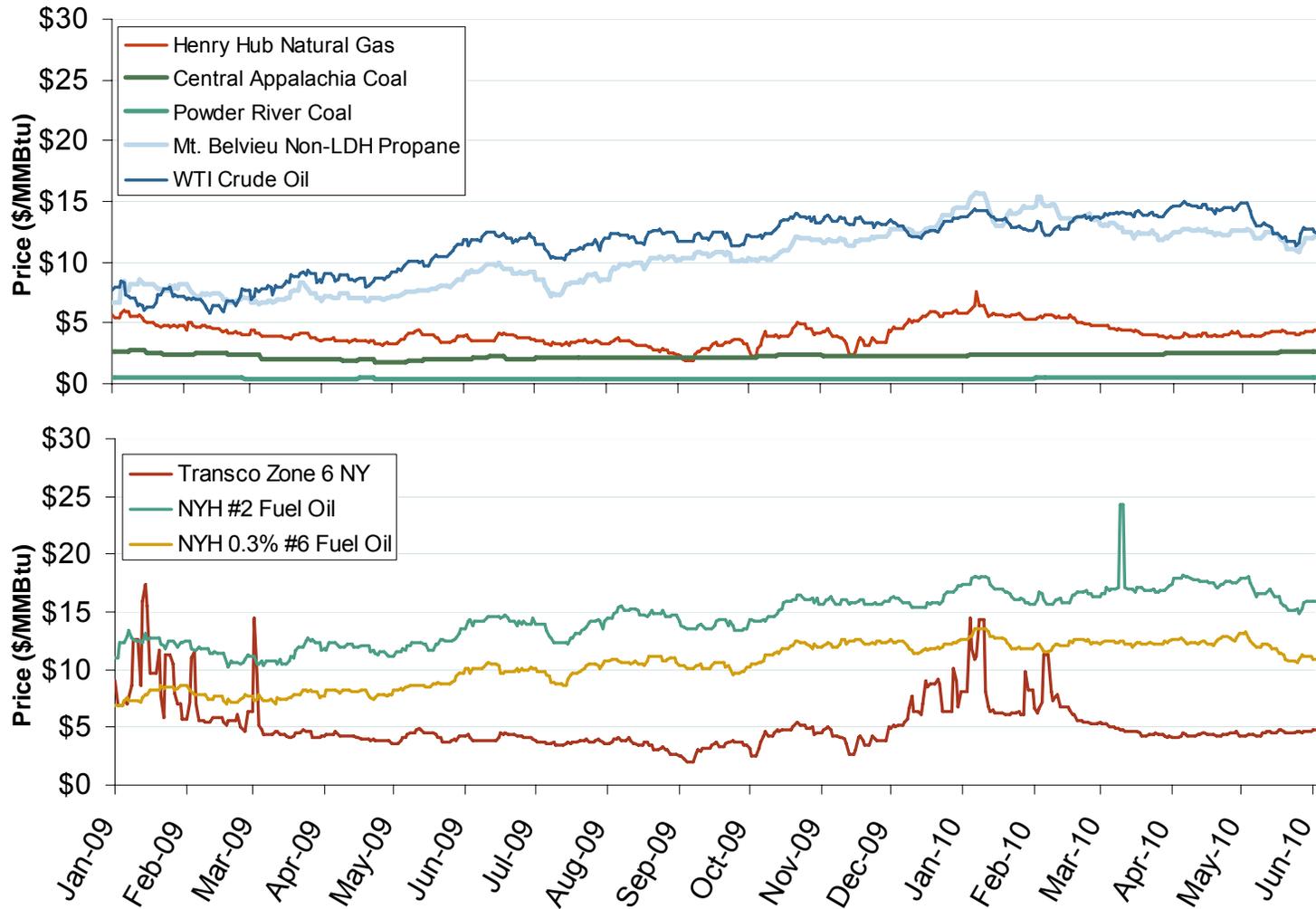


The NYMEX futures contract trades in 10,000 million Btu units. The blue series shows the forward price curve for these contracts 1-year ago. The red and yellow curves show prices for contracts traded on the current and previous months.

Average Summer Forward Gas Prices (\$MMBtu) July – October 2010



Oil, Coal, Natural Gas and Propane Daily Spot Prices

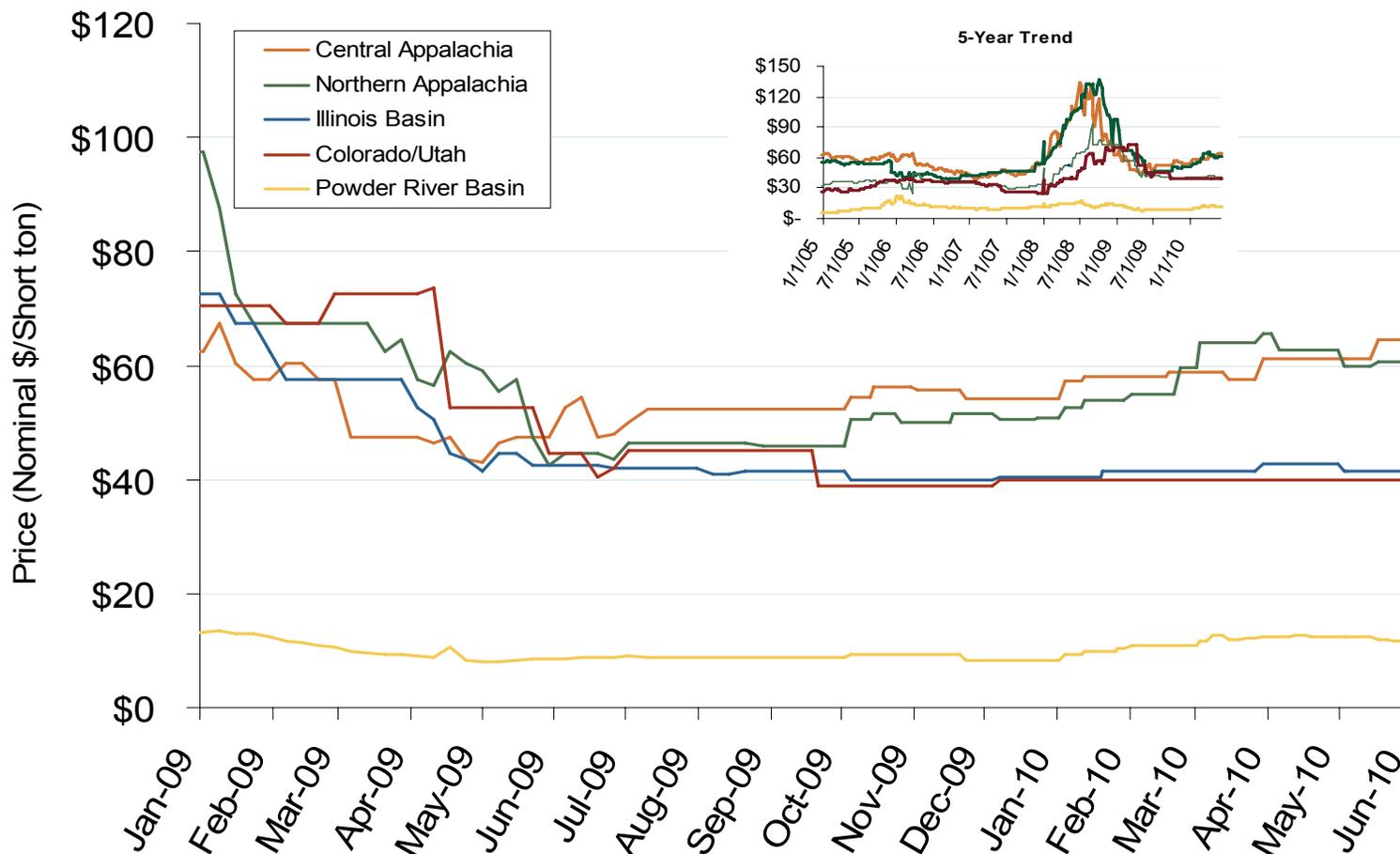


Source: Derived from ICE and Bloomberg data.

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 June 7, 2010

Regional Coal Spot Prices



Note: 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.
June 2010 Northeast Snapshot Report

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Northeast Coal Stockpiles at Electric Power Generating Facilities

