OE ENERGY MARKET SNAPSHOT

National 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**

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FEDERAL ENERGY REGULATORY COMMISSION

Summer 2010 Energy Market and Reliability Assessment

Item No: A-3

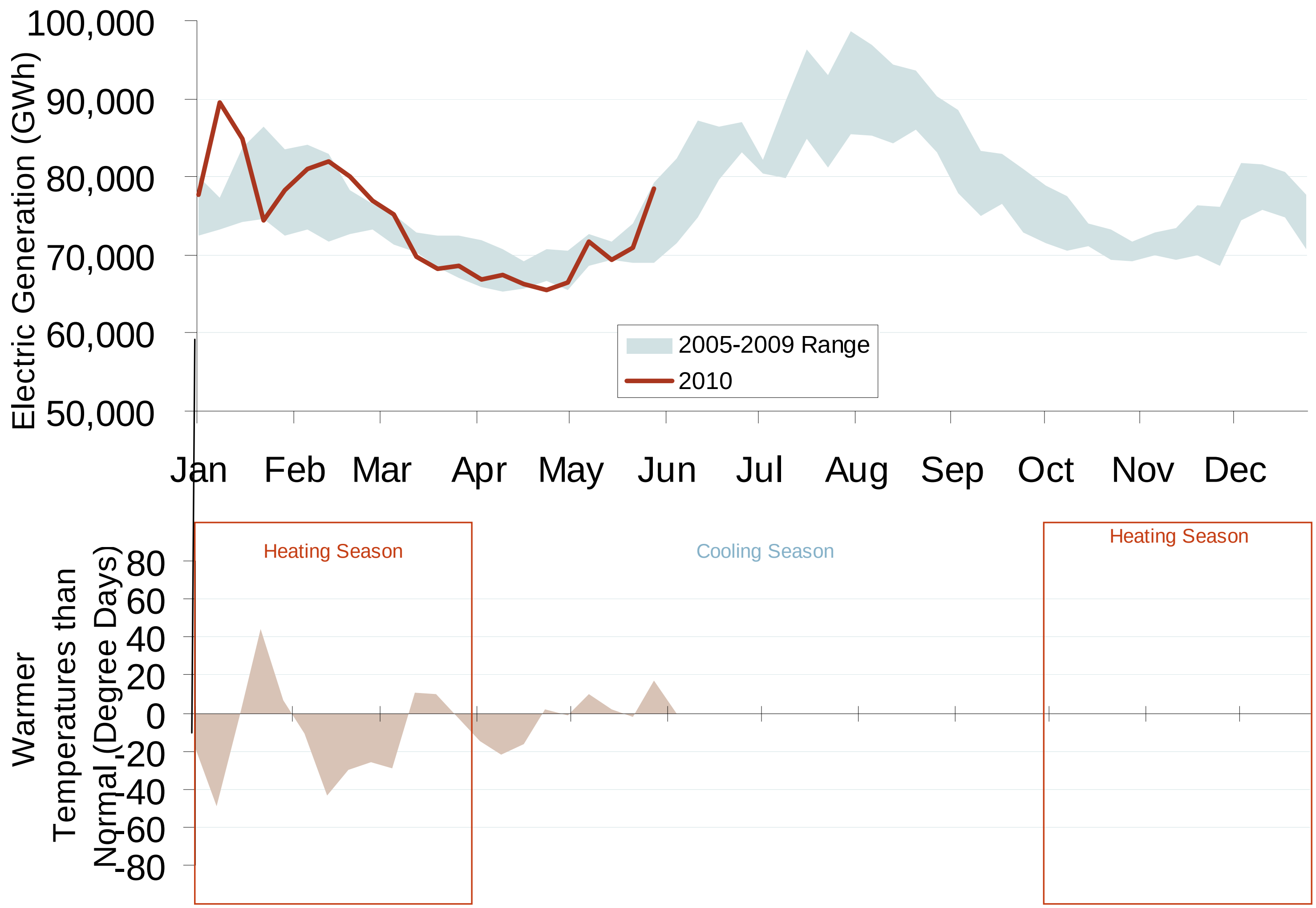
May 20, 2010

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

Updated May 28, 2010

Electricity Markets

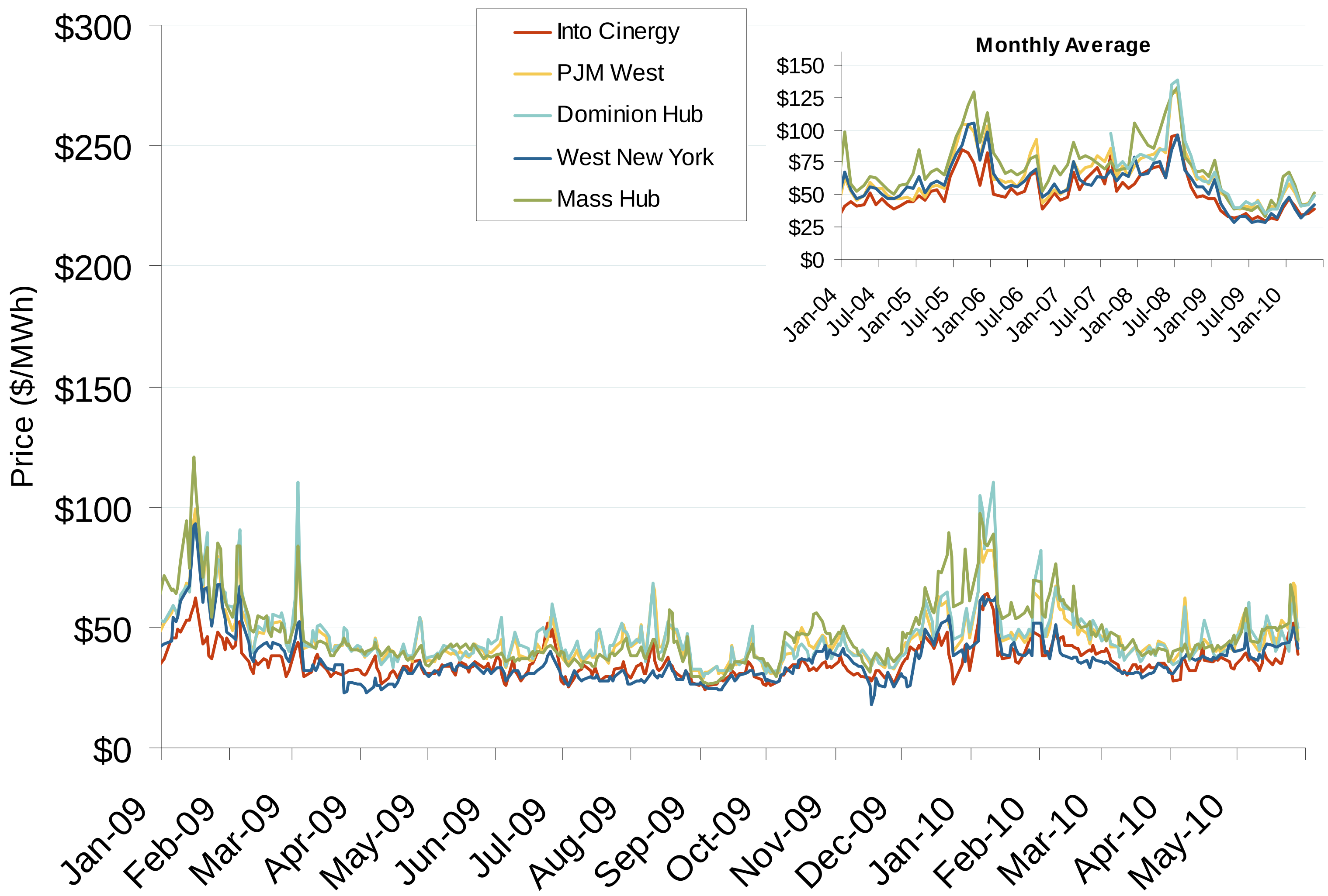
Weekly U.S. Electric Generation Output and Temperatures



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

Updated June 7, 2010

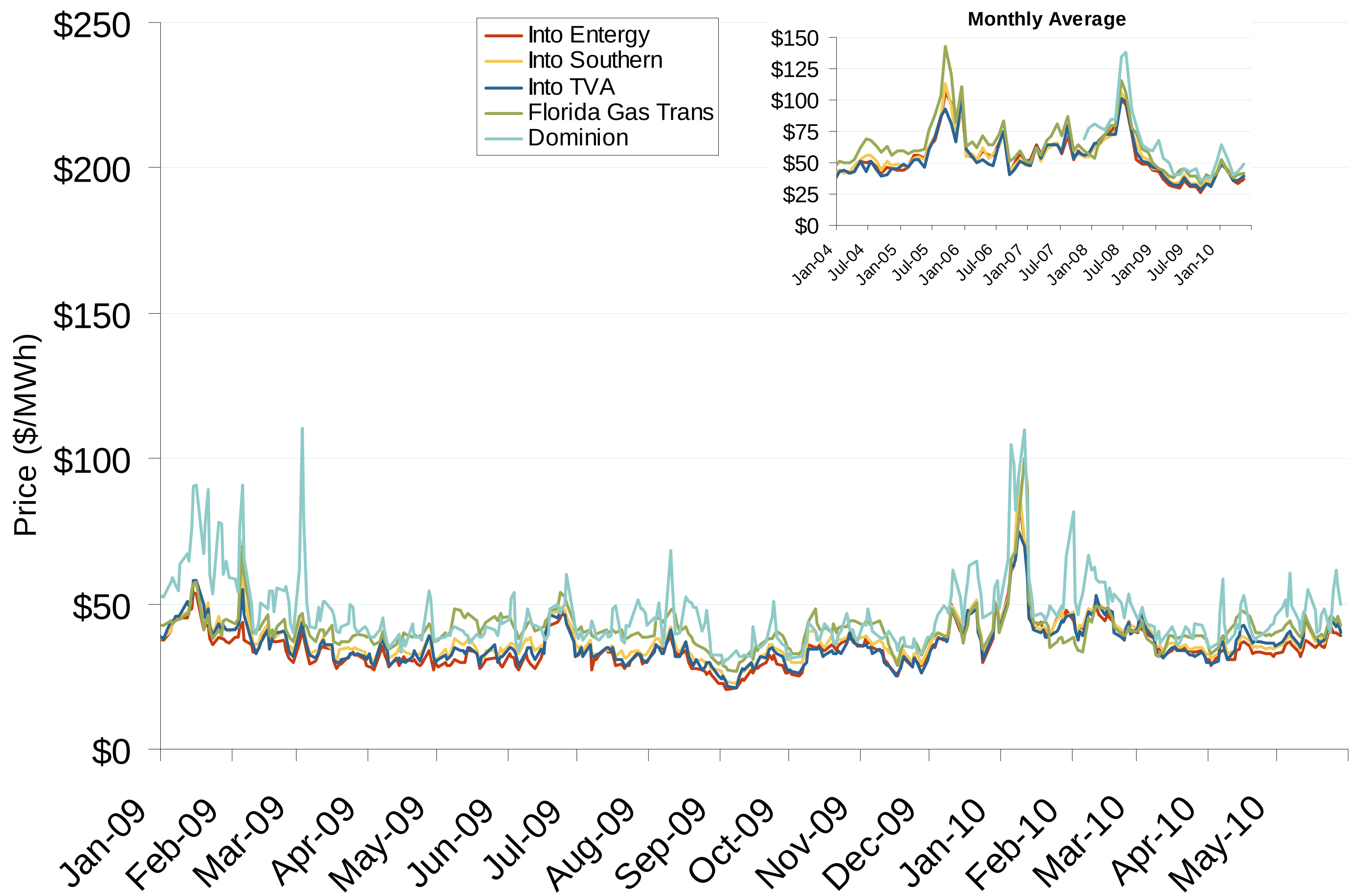
Eastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated June 7, 2010

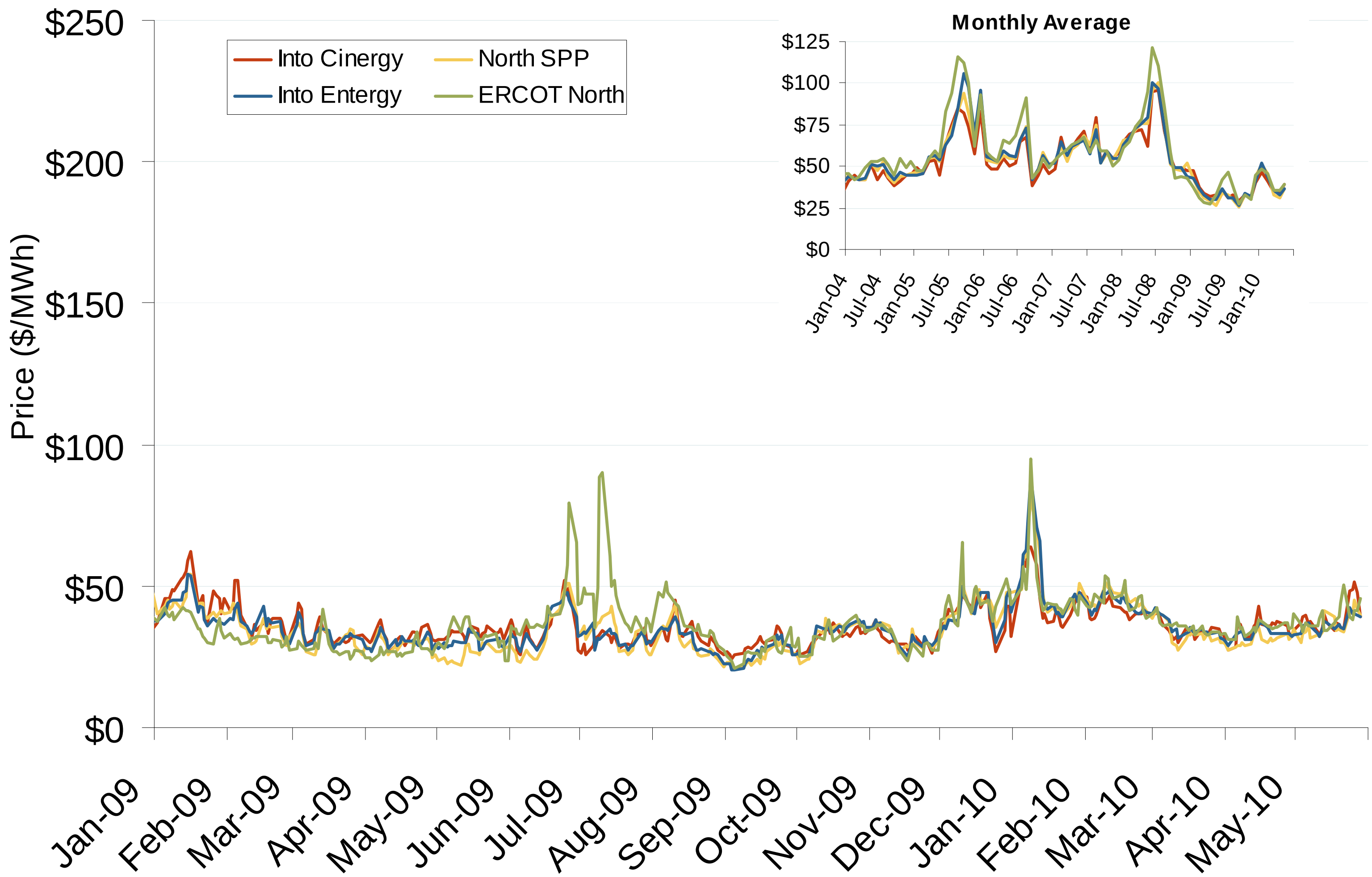
Southeastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated June 7, 2010

Central Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

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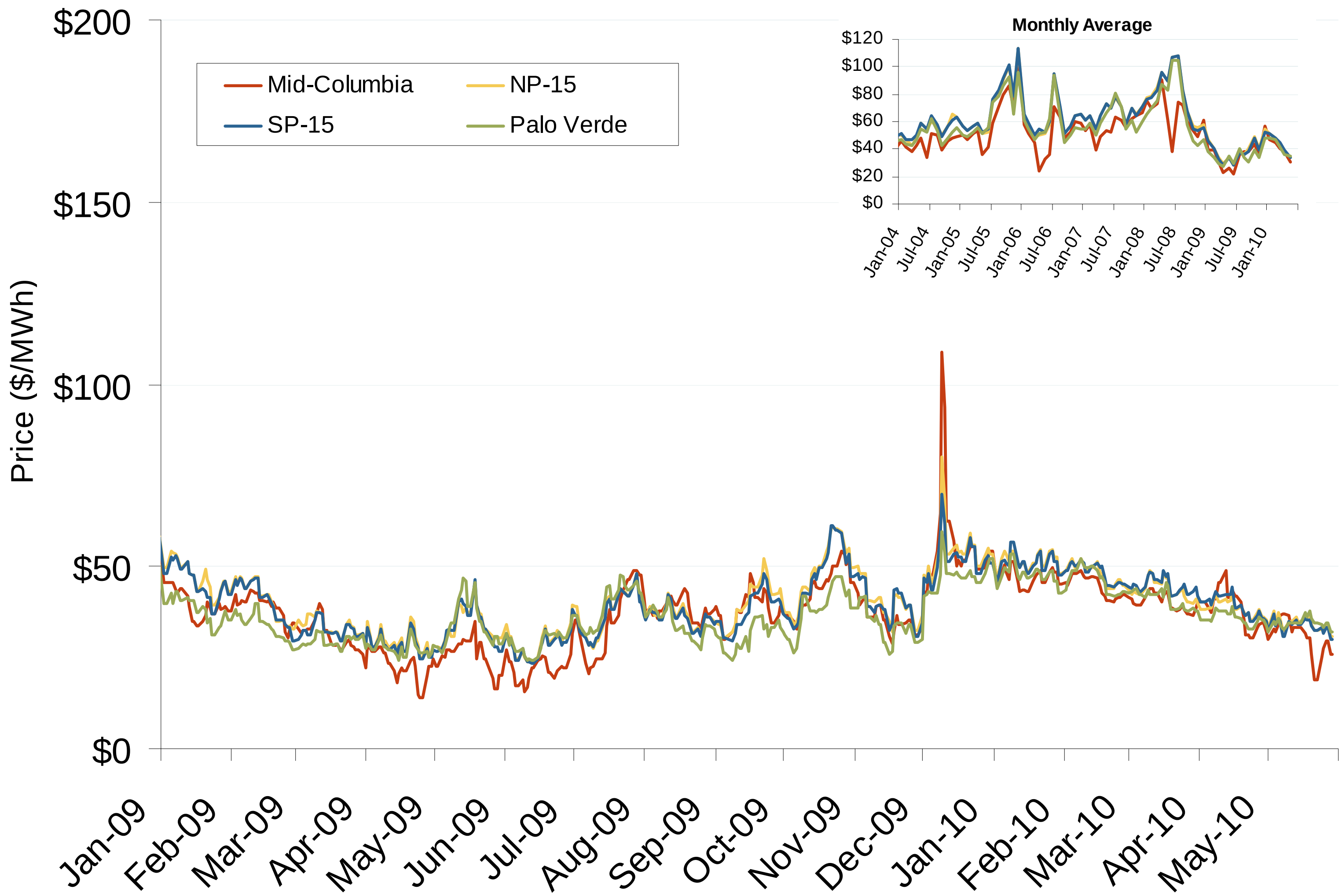
Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

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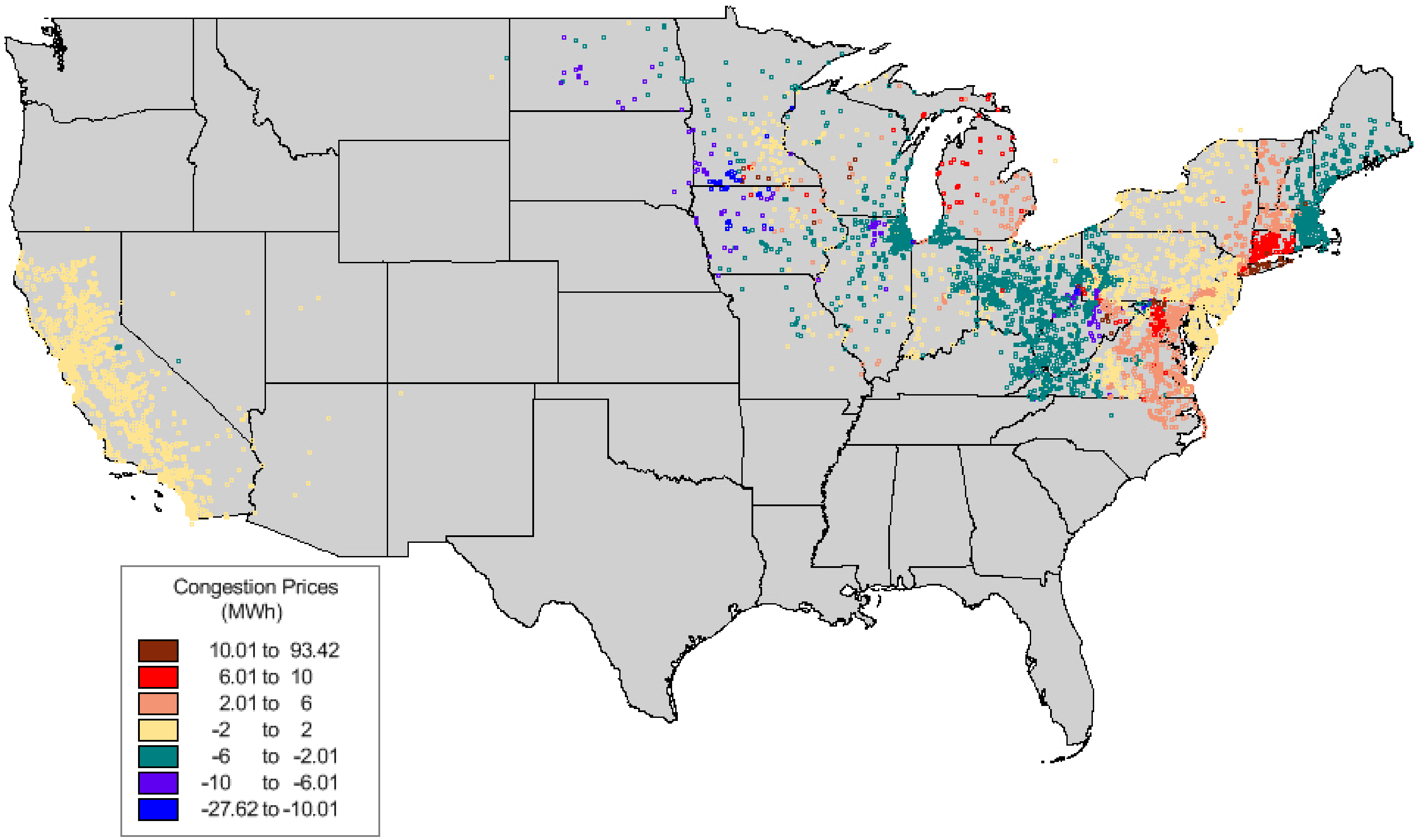
Day Ahead On-Peak Congestion Average Monthly Prices May 2010



Source: Velocity Suite

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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

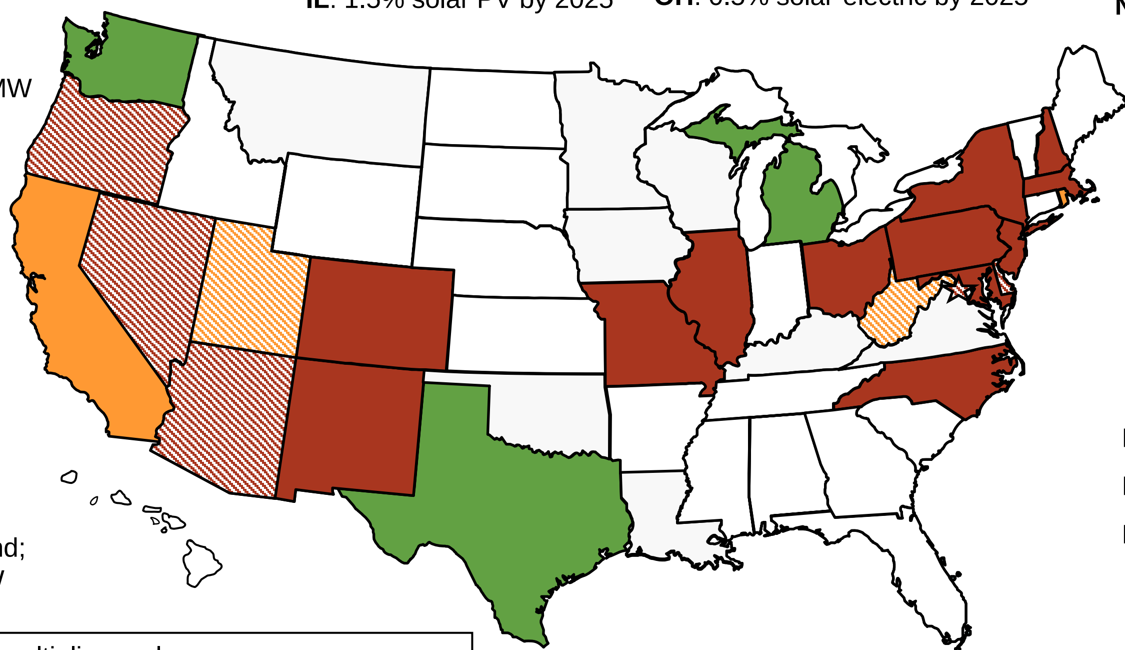
TX: double-credit for non-wind;
non-wind goal – 500 MW

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

Solar / DG set-aside in RPS
Solar / DG in other renewable goal
RPS credit multiplier for Solar / DG
Multiplier & set-aside in an RPS
Multiplier & set-aside in Renewable Goal

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

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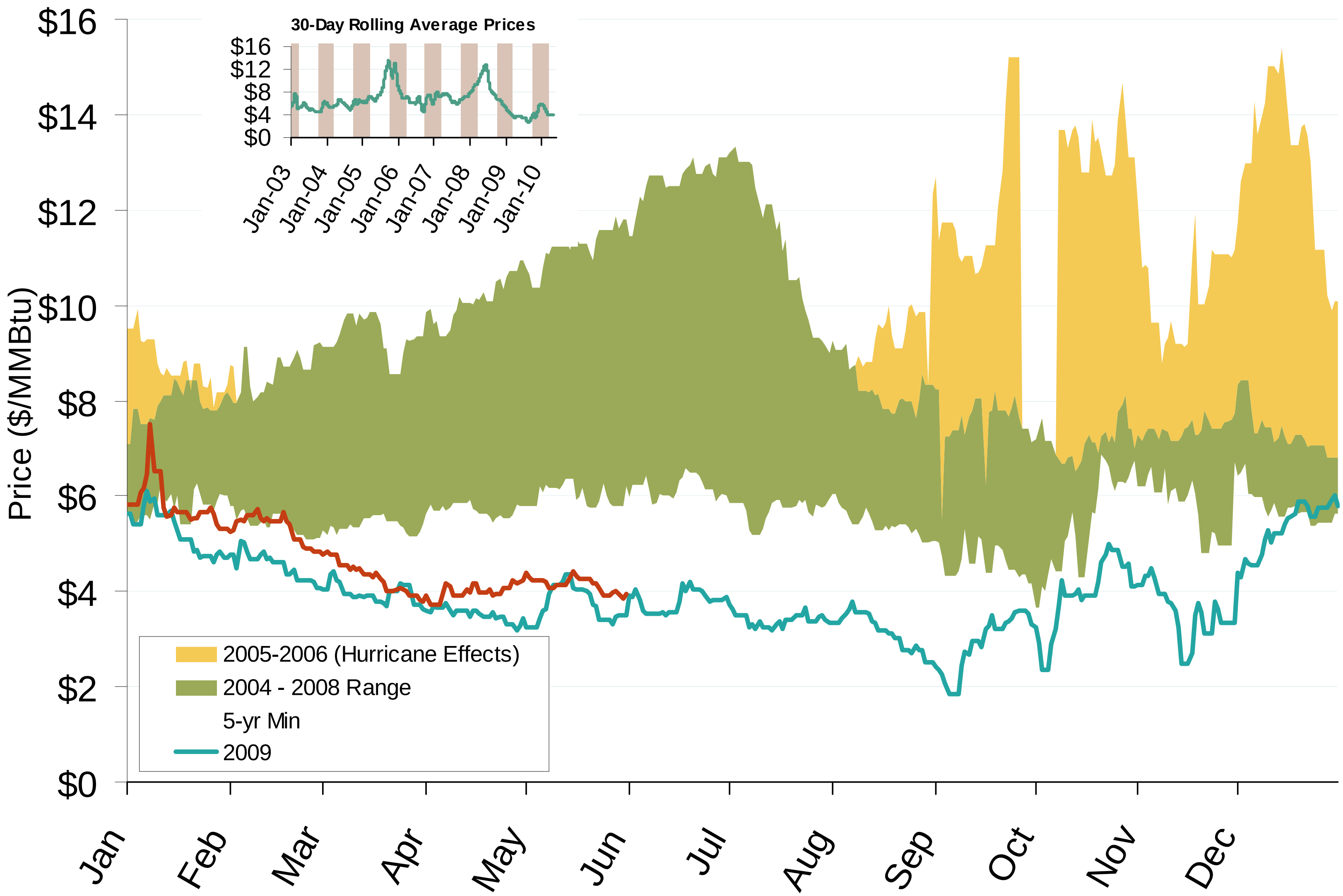
Natural Gas and Fuel Markets

Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data.

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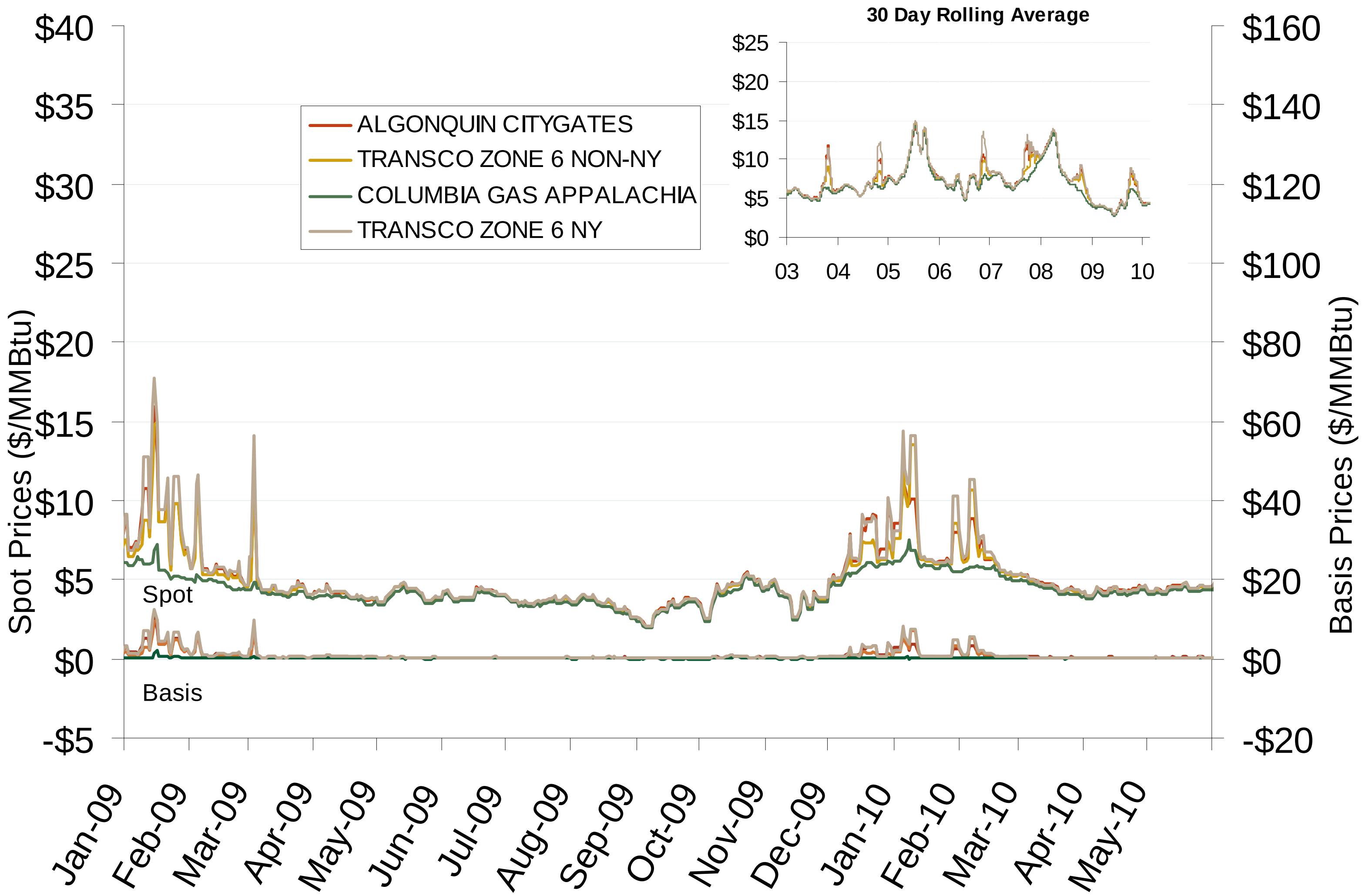
Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.

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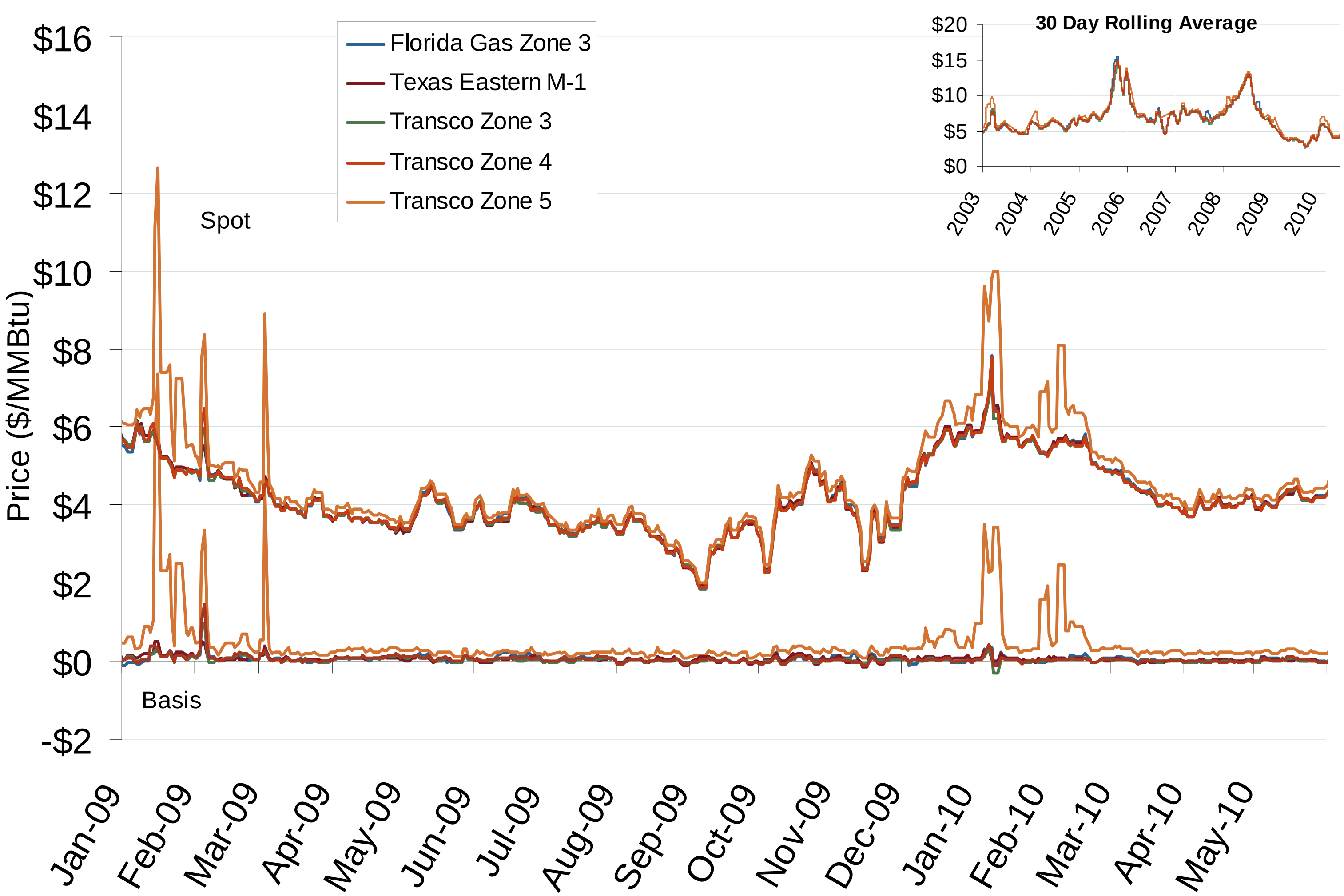
Southeastern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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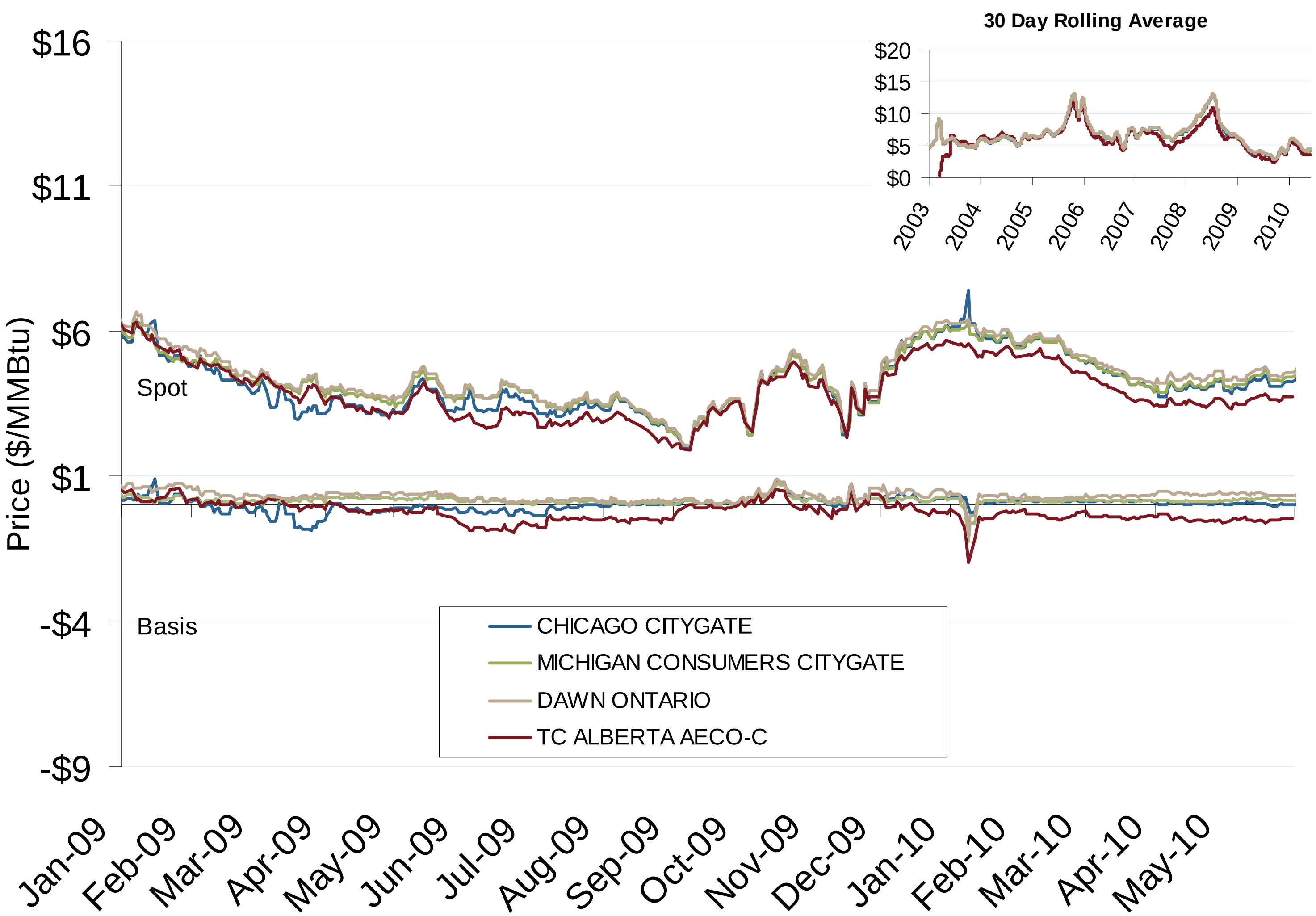
Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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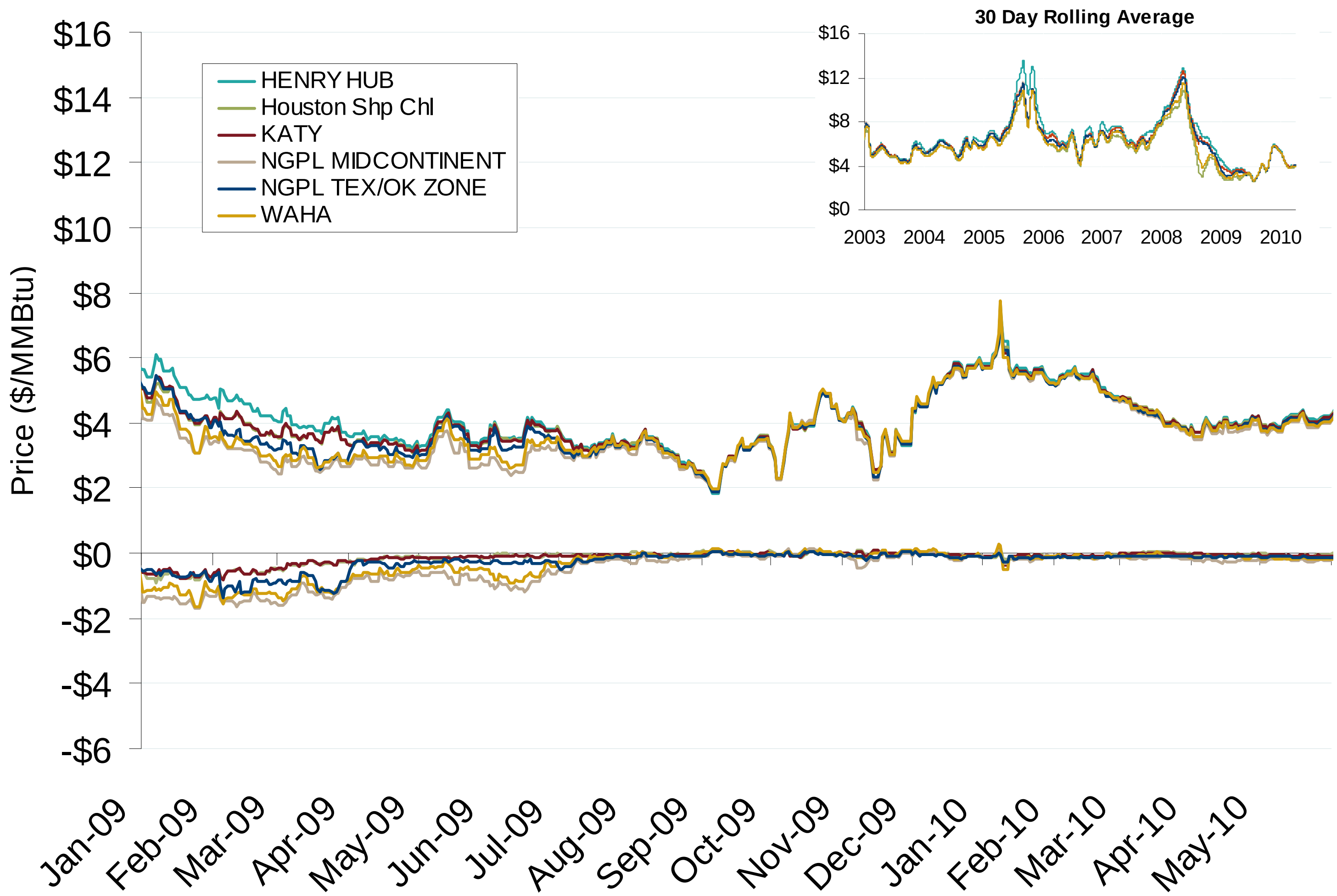
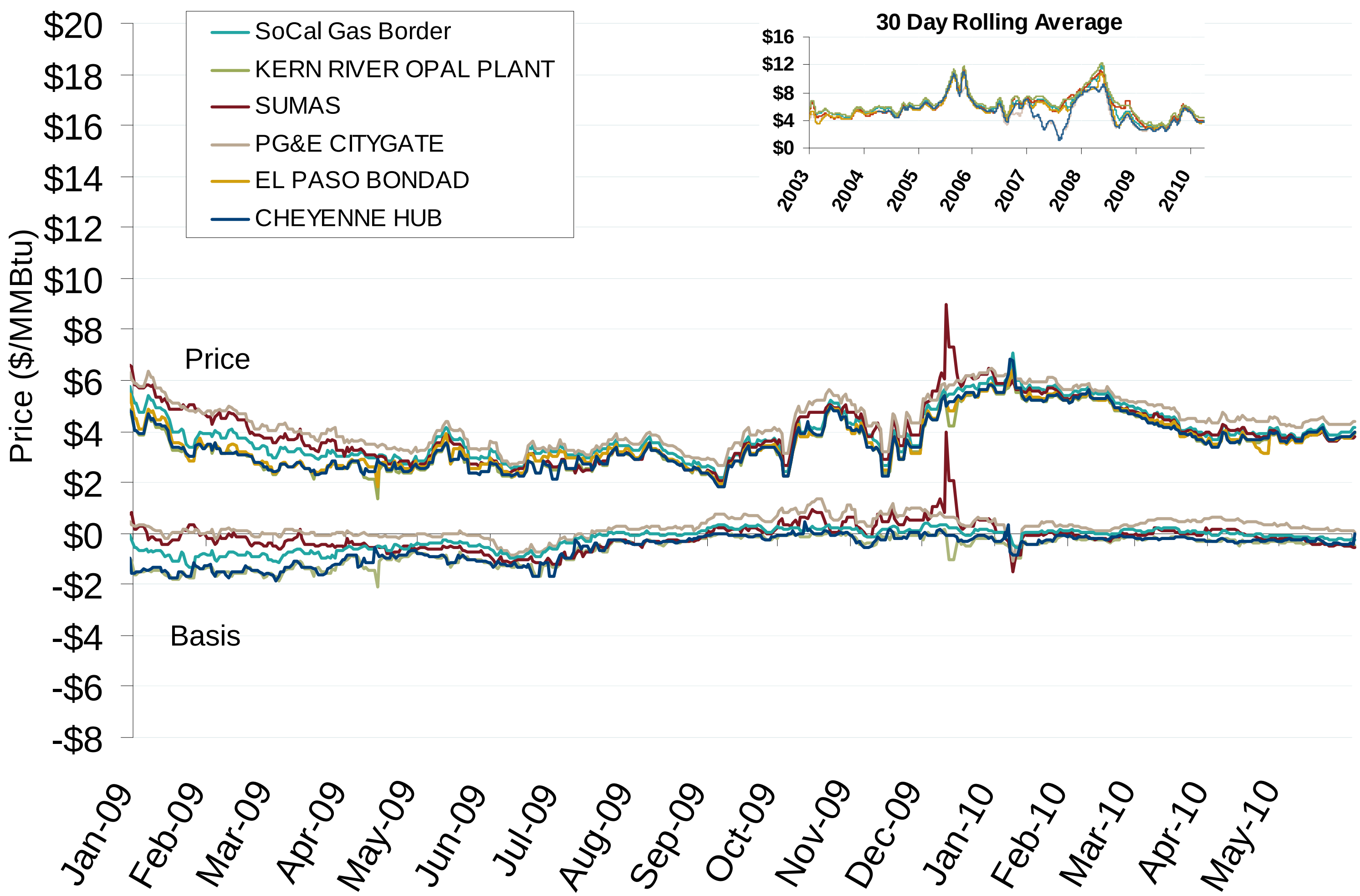
Gulf Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated June 7, 2010

Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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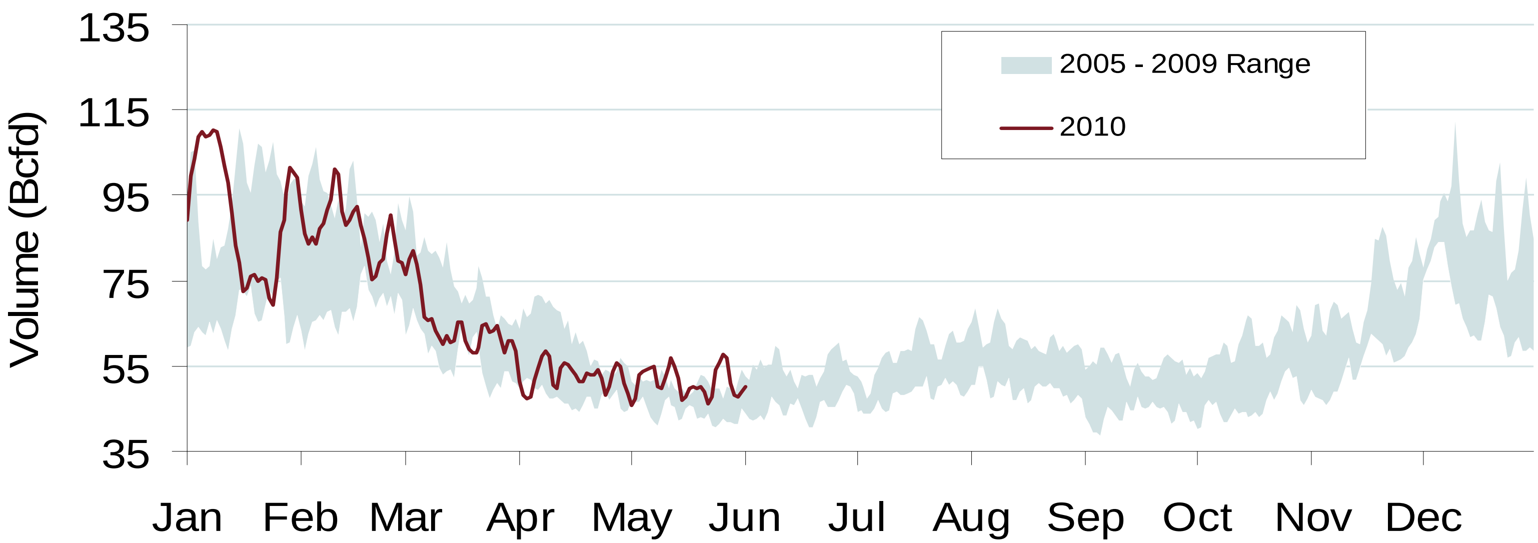
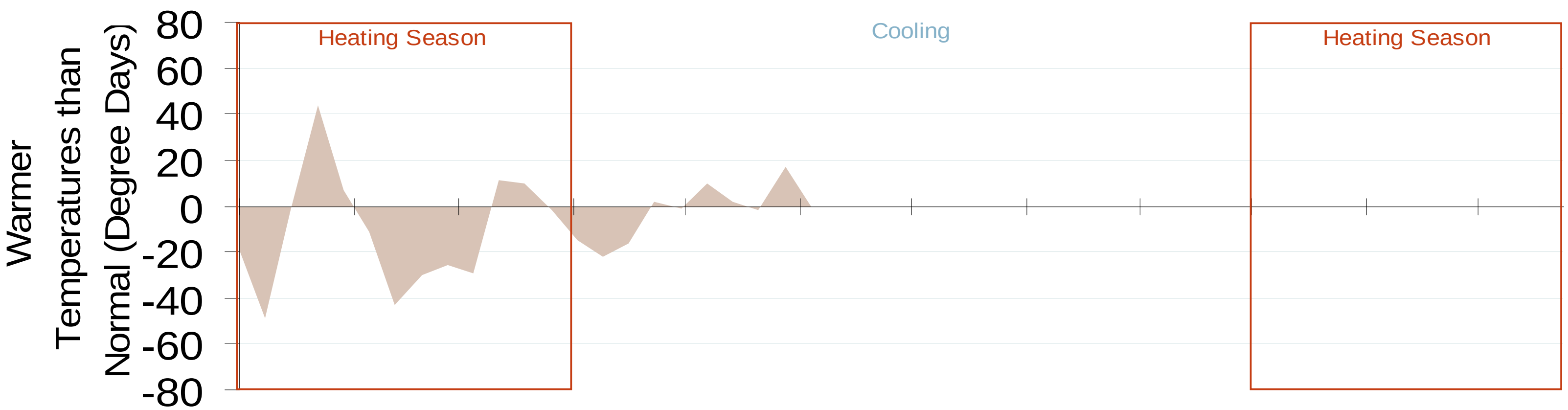
Total U.S. Natural Gas Demand (All Sectors) and Temperatures





Source: Derived from Bentek Energy and NOAA data.

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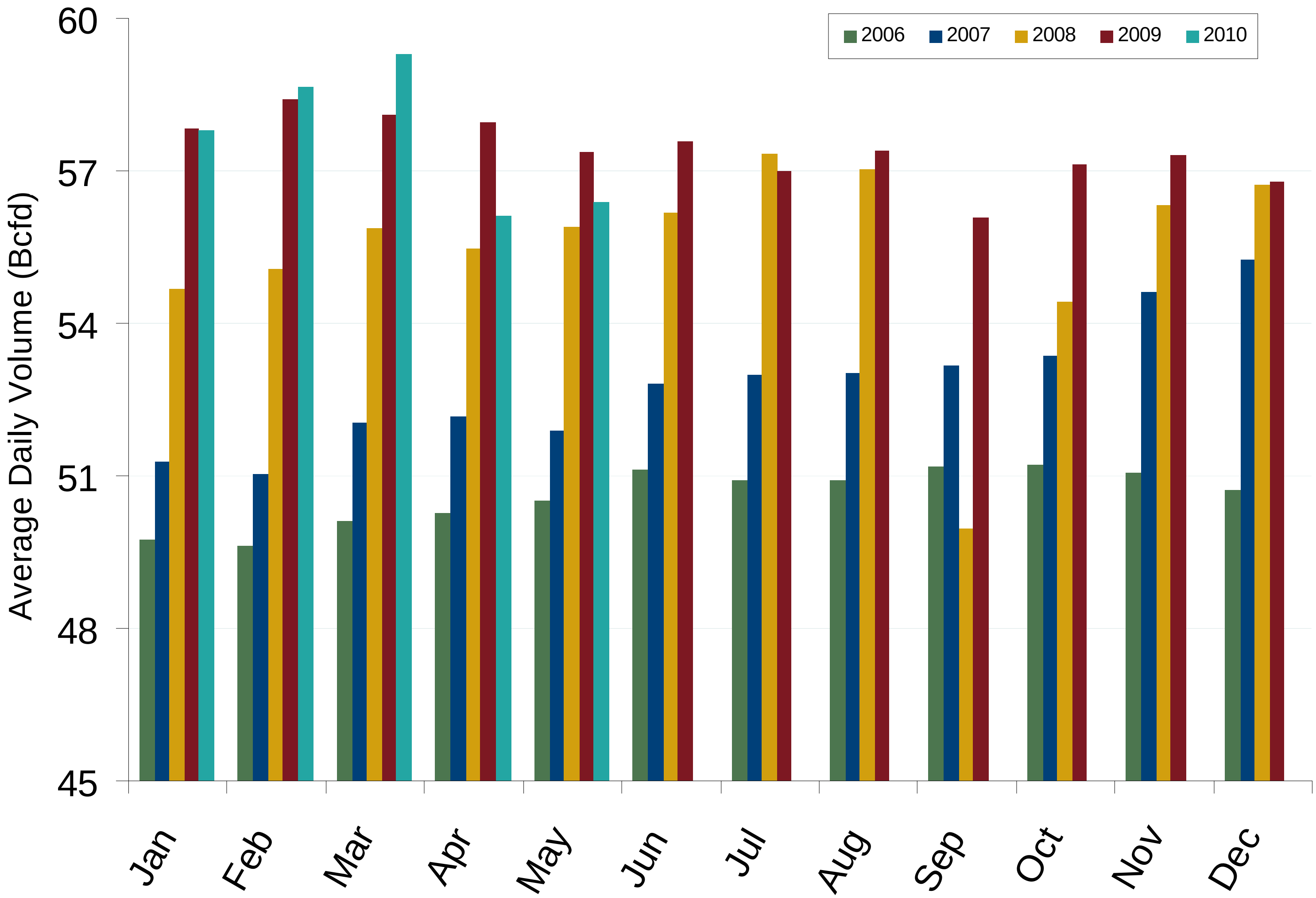
U.S. Dry Gas Production



Source: Derived from *EIA and Bentek data.*

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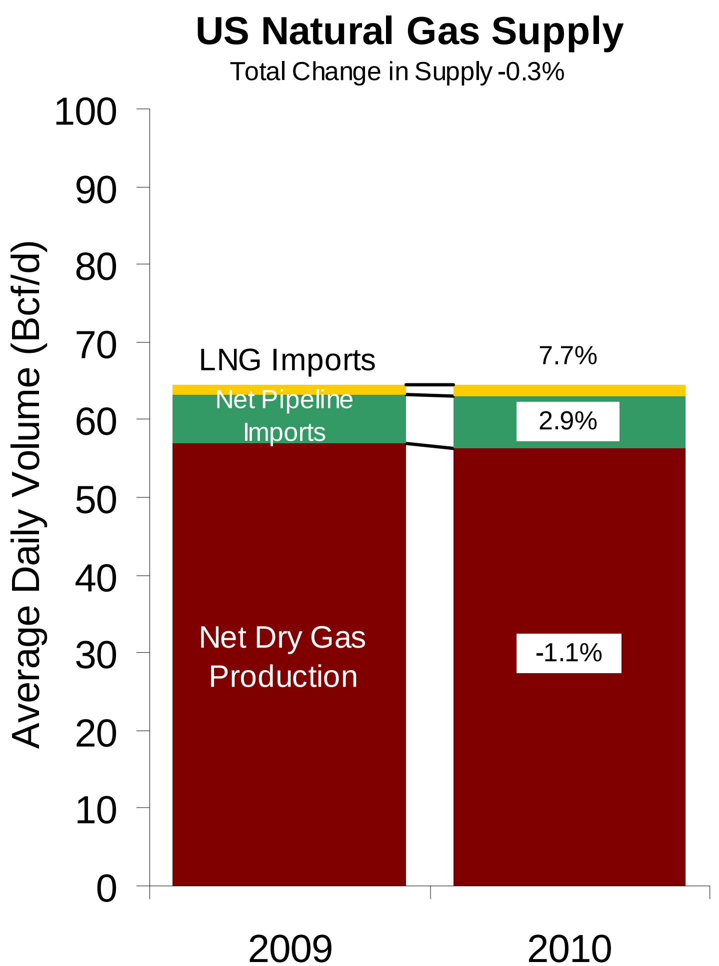
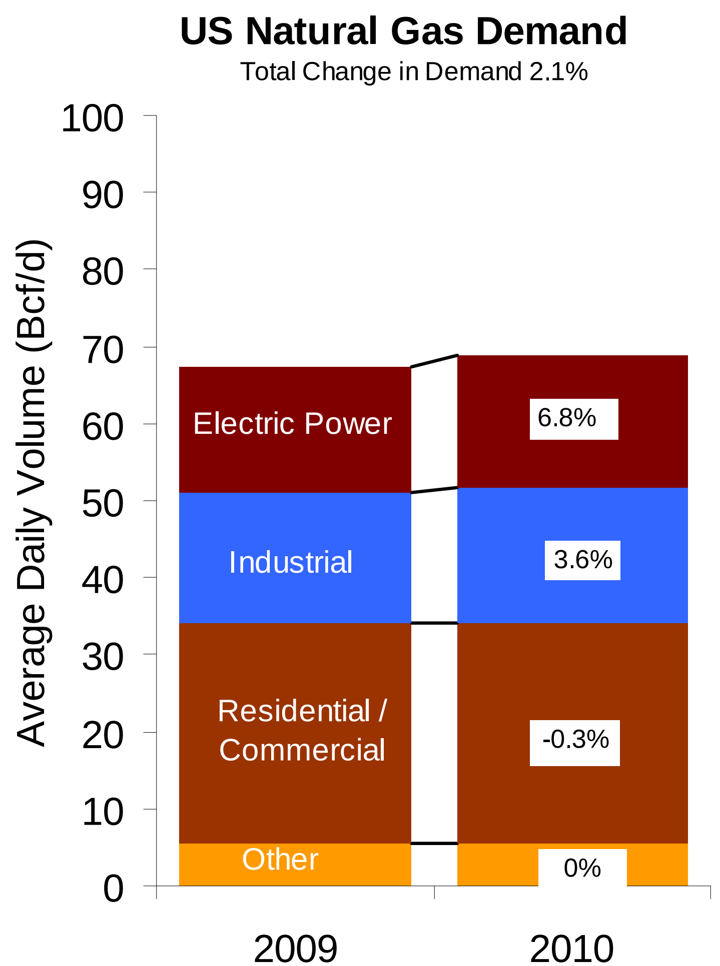
U.S. Natural Gas Supply and Demand
2009 vs. 2010: January - May





Source: Derived from Bentek data.

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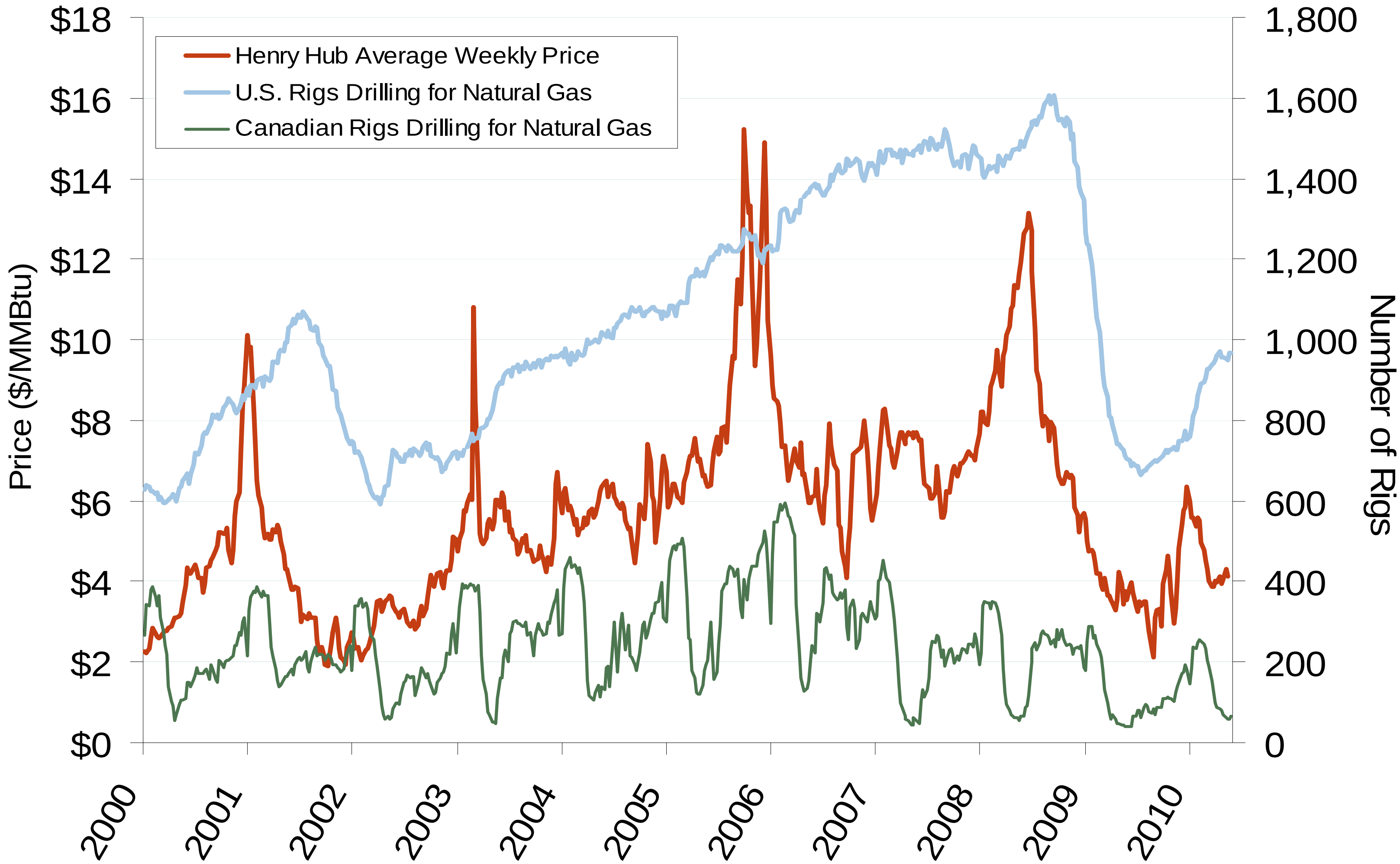
U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

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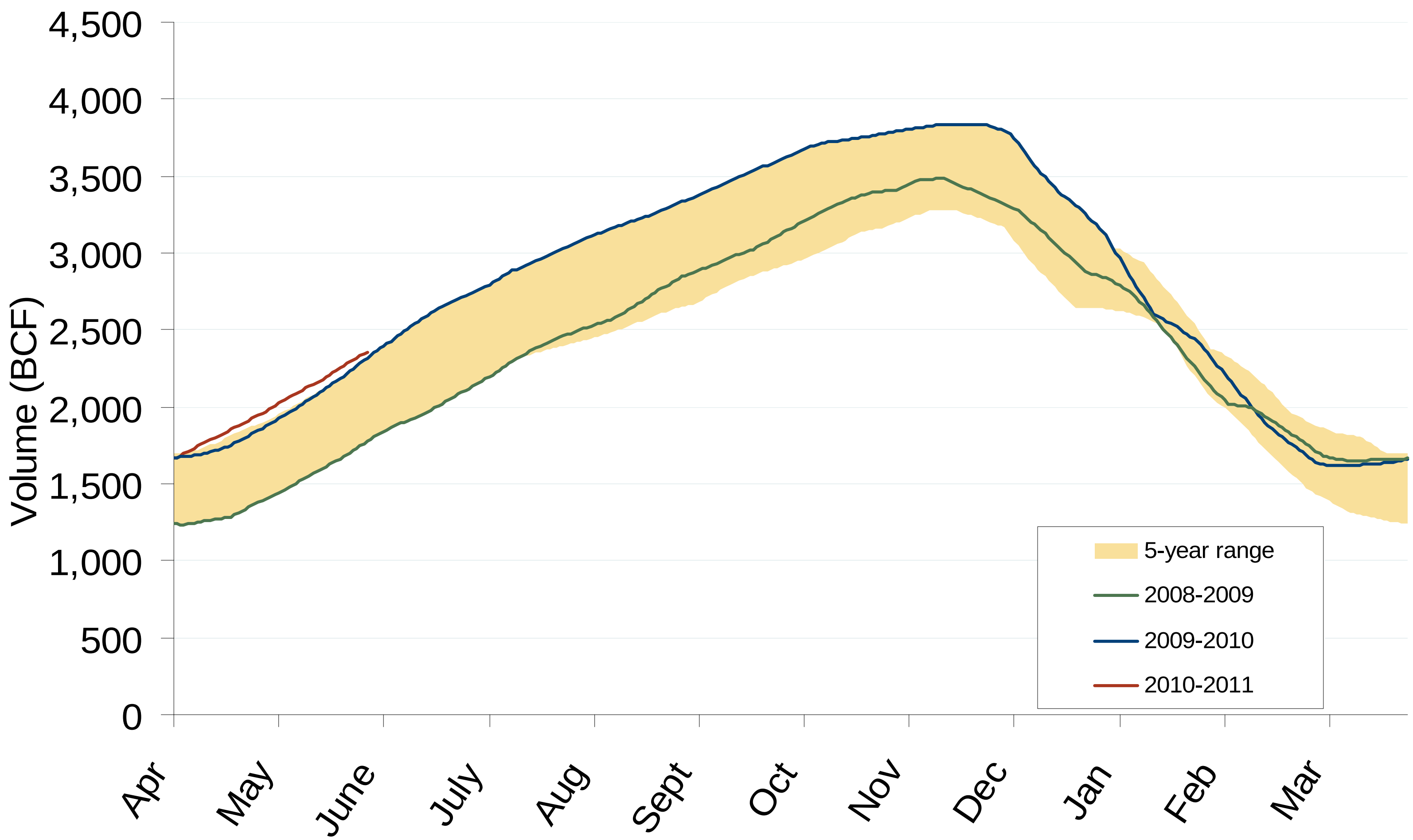
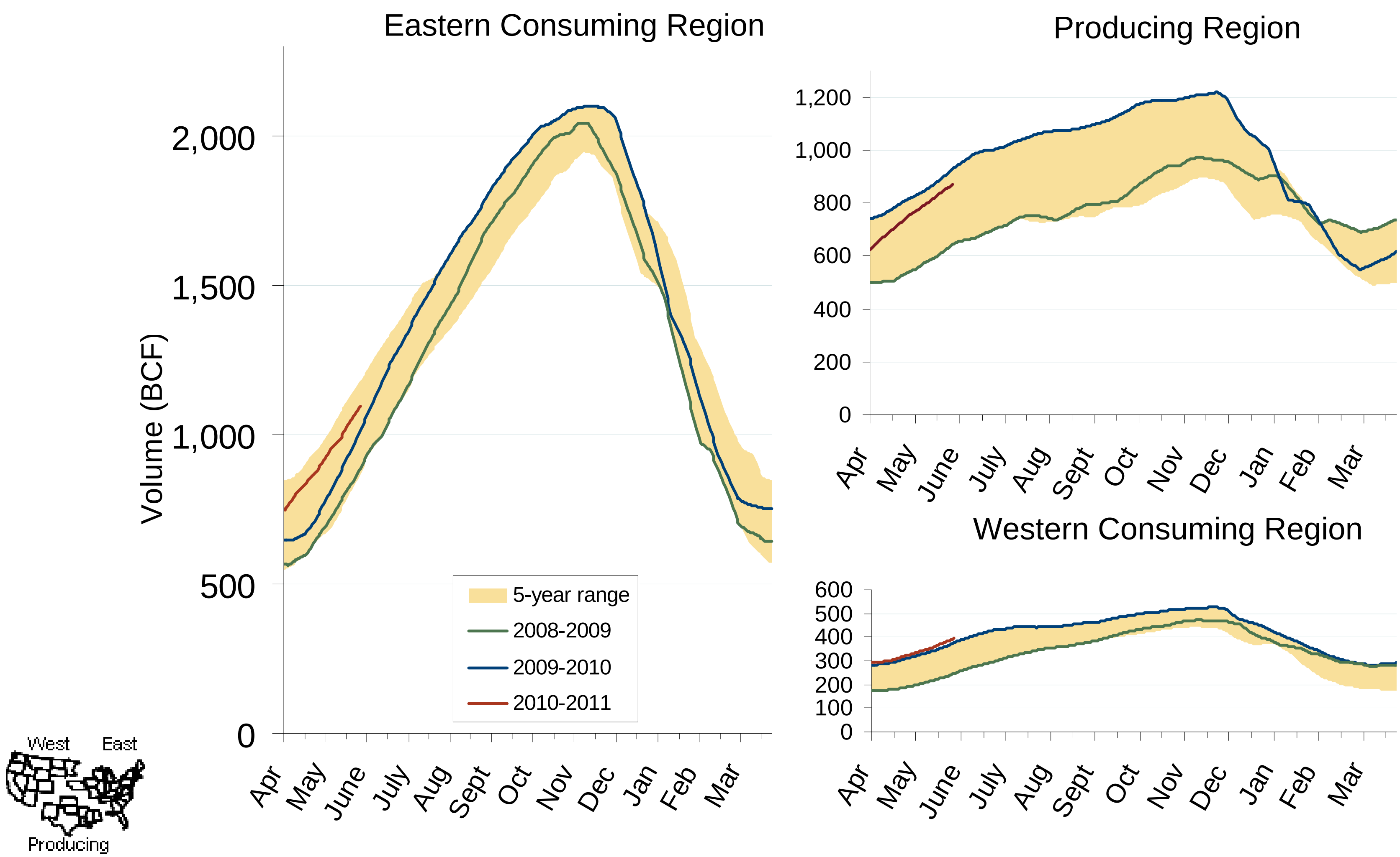
Total U.S. Working Gas in Storage



Source: Derived from *EIA* data.

Updated June 7, 2010

Regional Totals of Working Gas in Storage



Source: Derived from *EIA* data.

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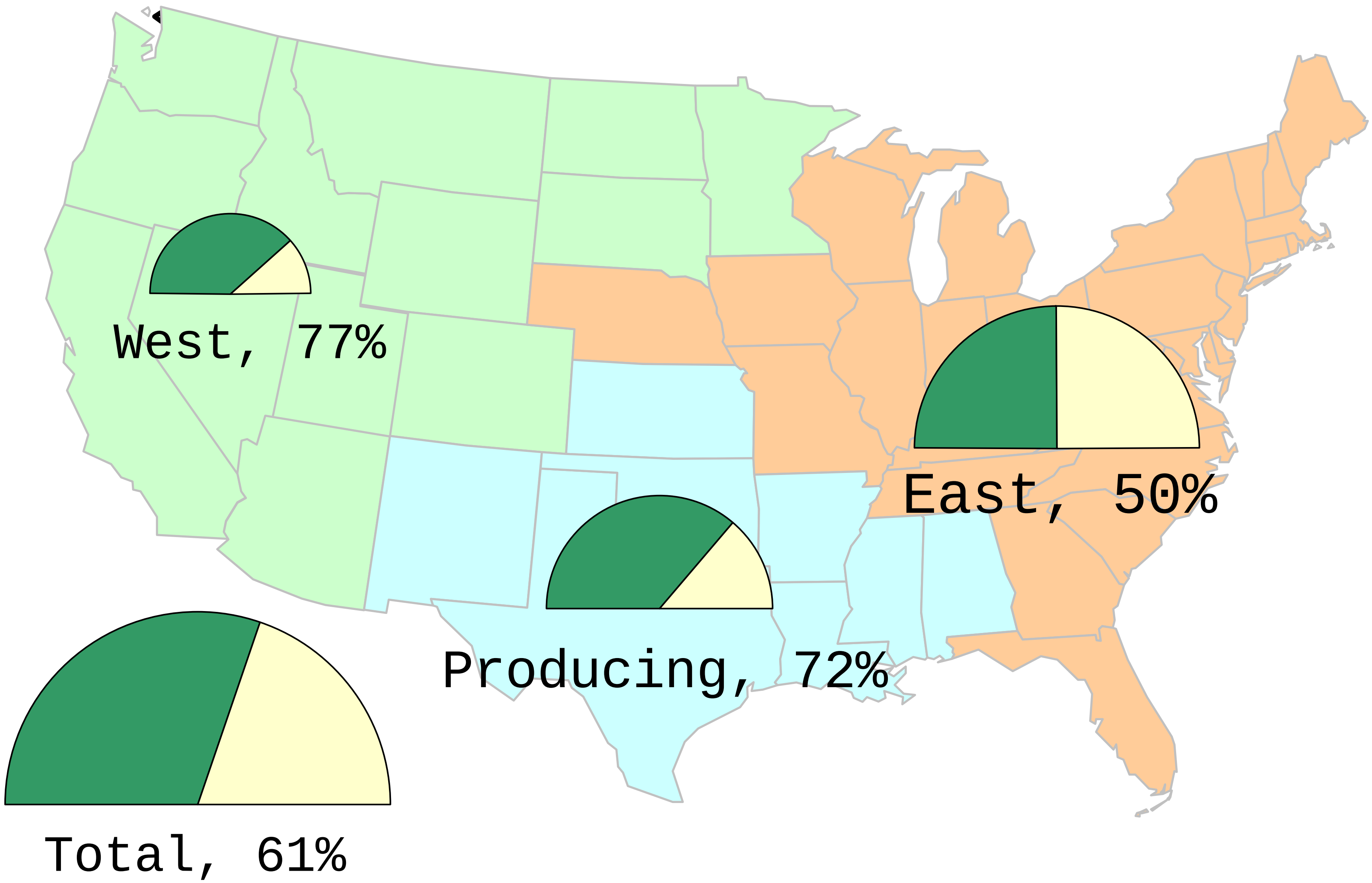
Natural Gas Storage Inventories – % full on May 28, 2010



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

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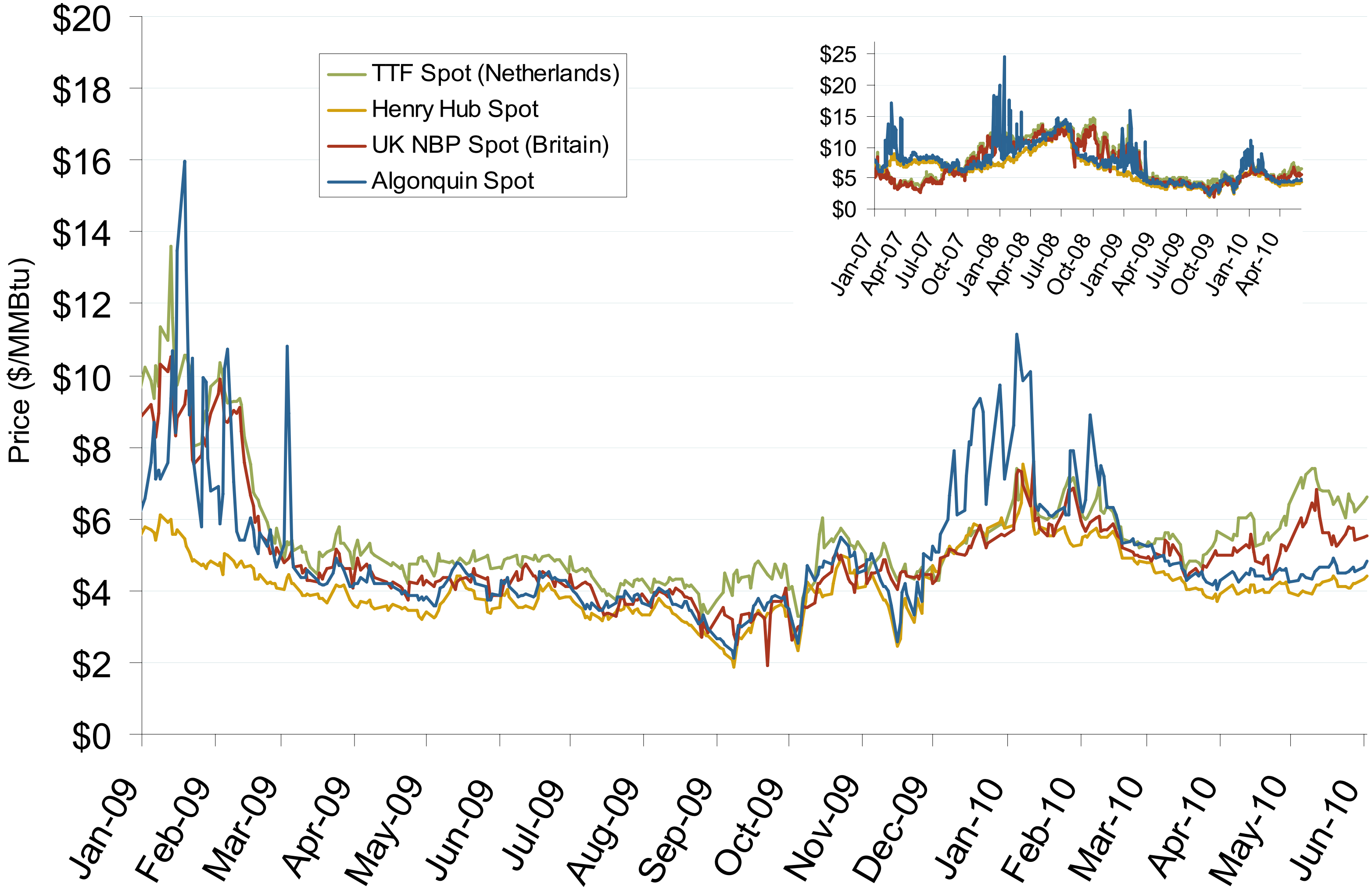
Atlantic Basin European and US Spot Natural Gas Prices



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

Updated June 7, 2010

World LNG Estimated June 2010 Landed Prices

Source: *Waterborne Energy, Inc*. Data in $US/MMBtu.

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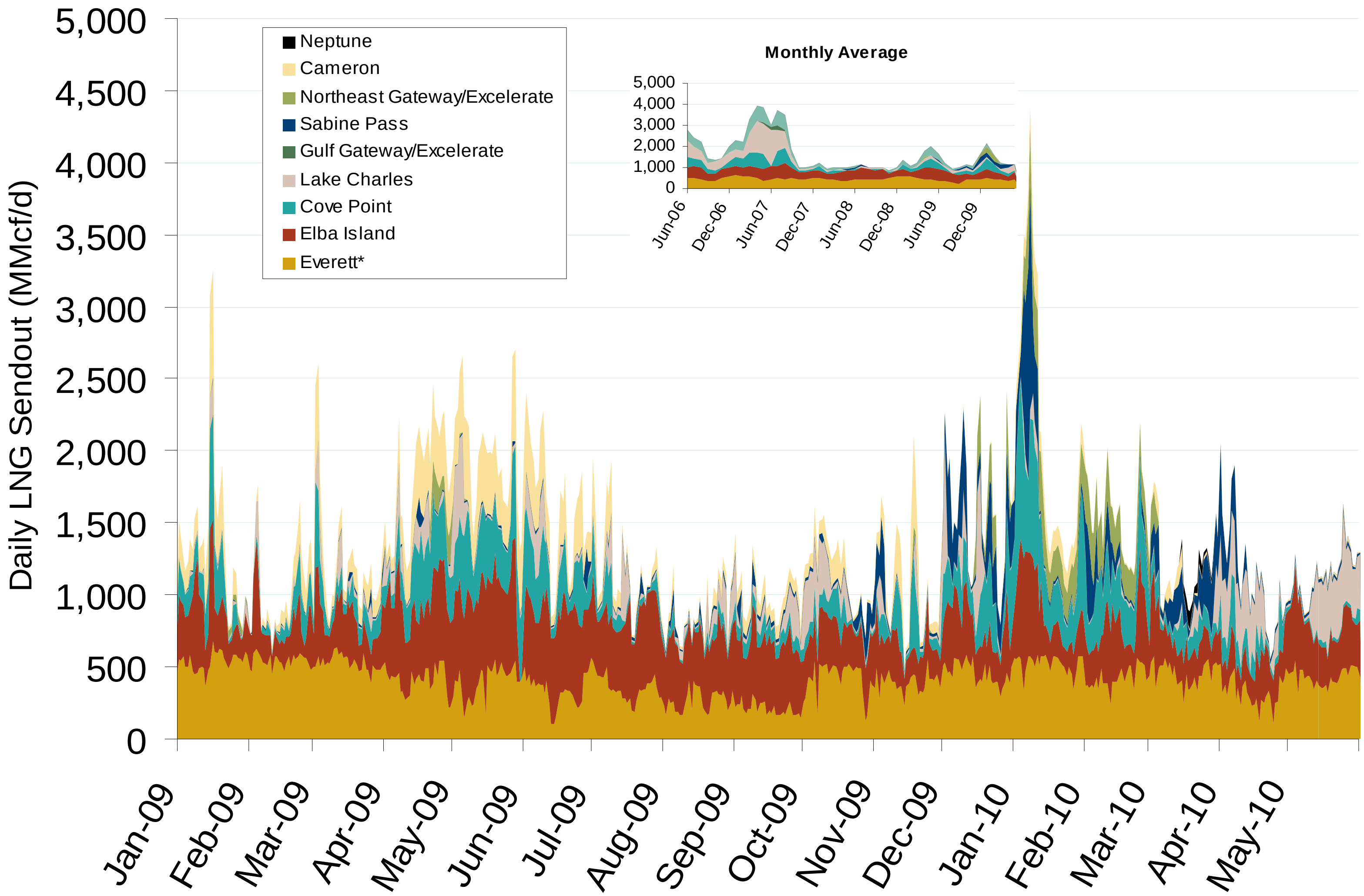
Daily Gas Sendout from Existing U.S. LNG Facilities

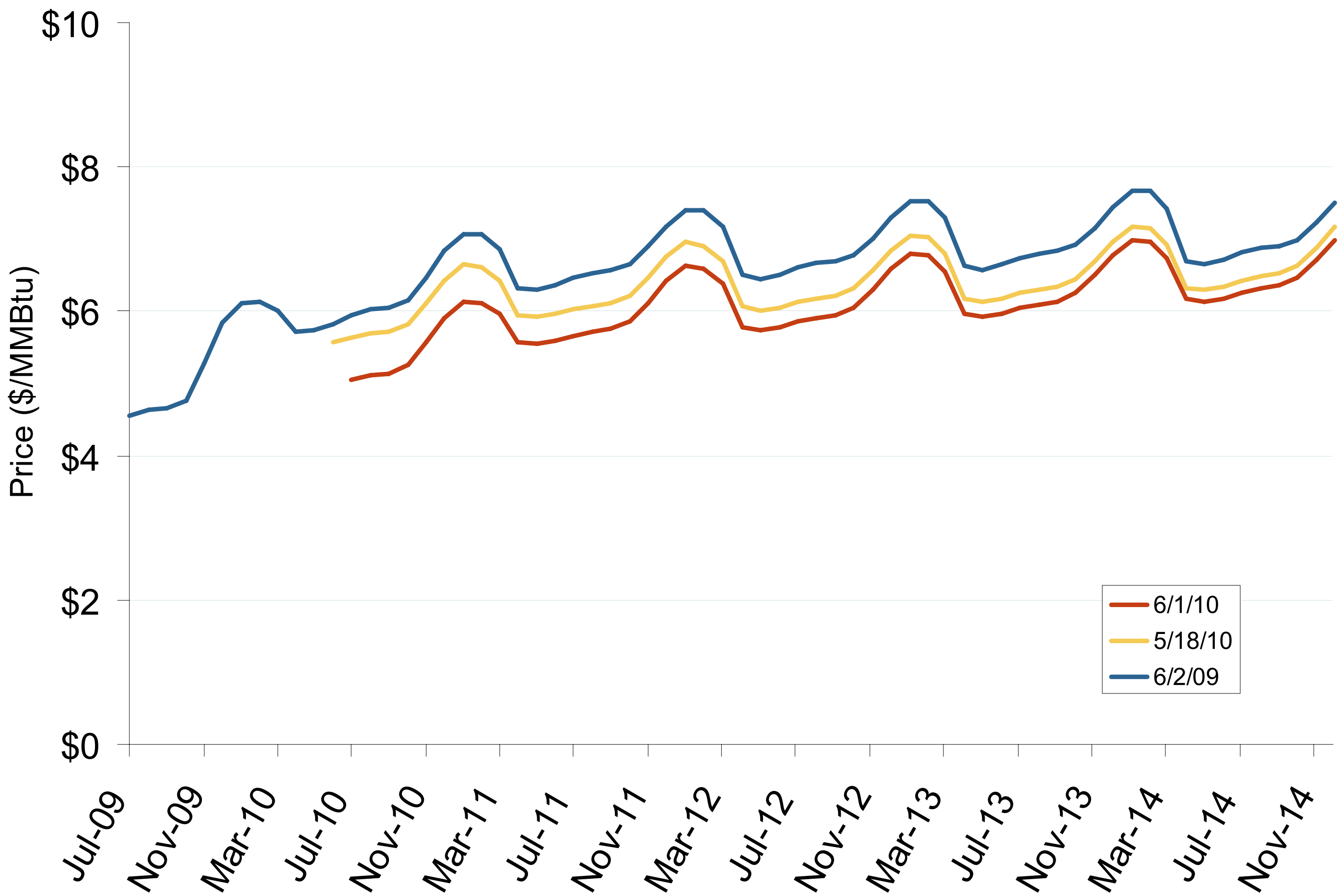


Source: Derived from *Bentek* data.

* 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.

Source: Derived from *NYMEX* data.

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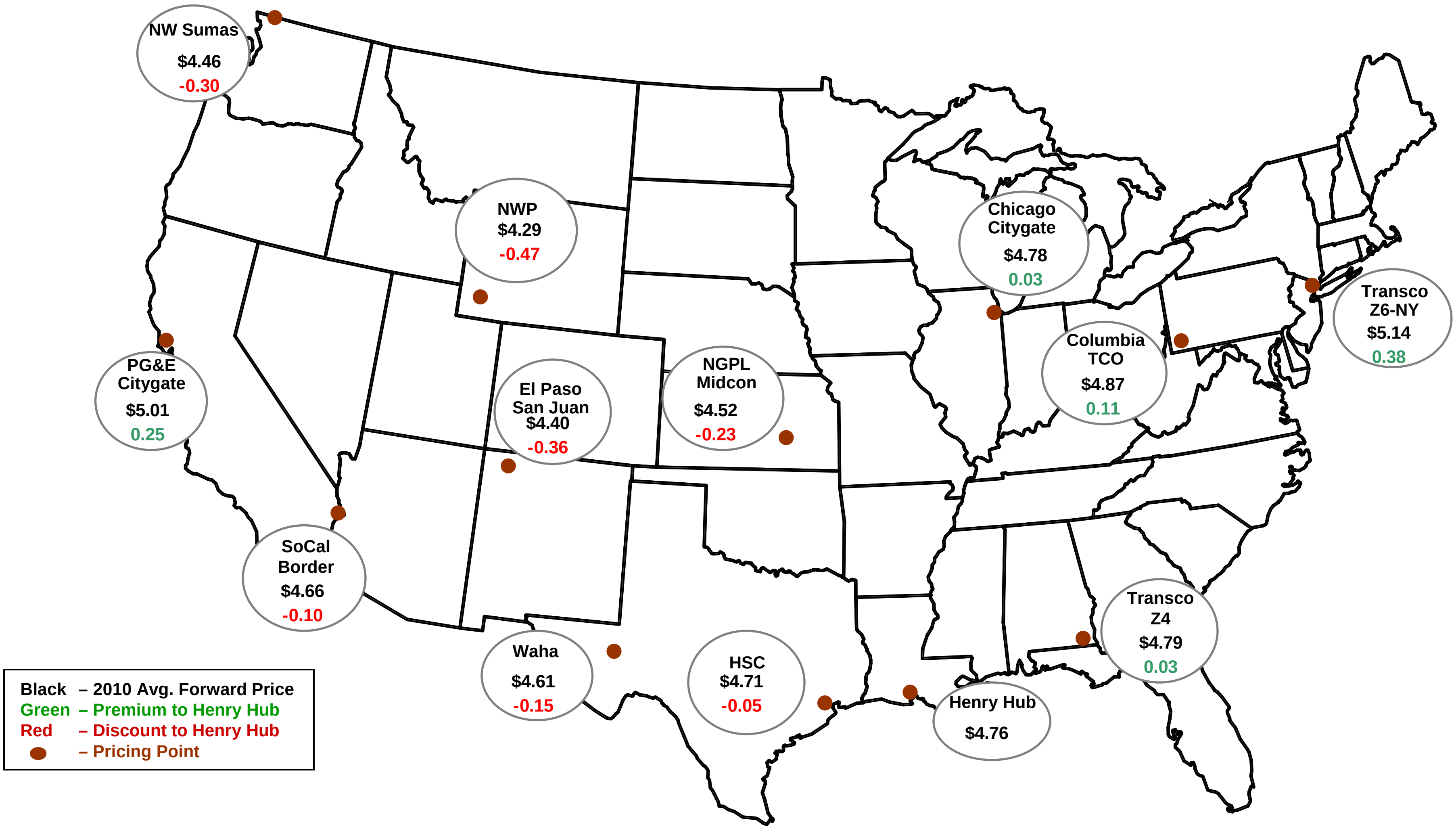
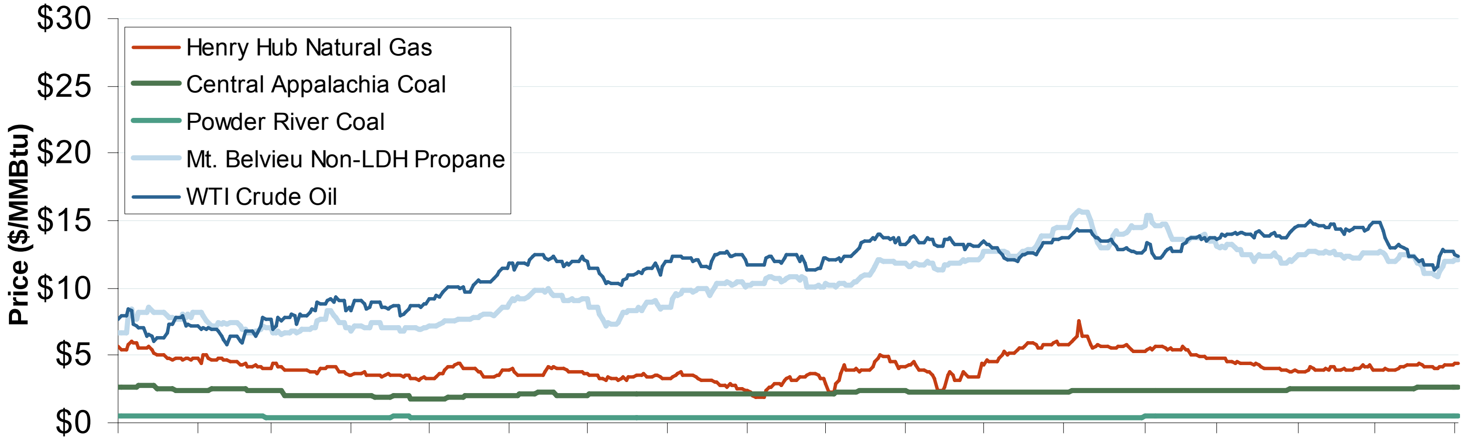
Average Summer Forward Gas Prices ($MMBtu)
July – October 2010

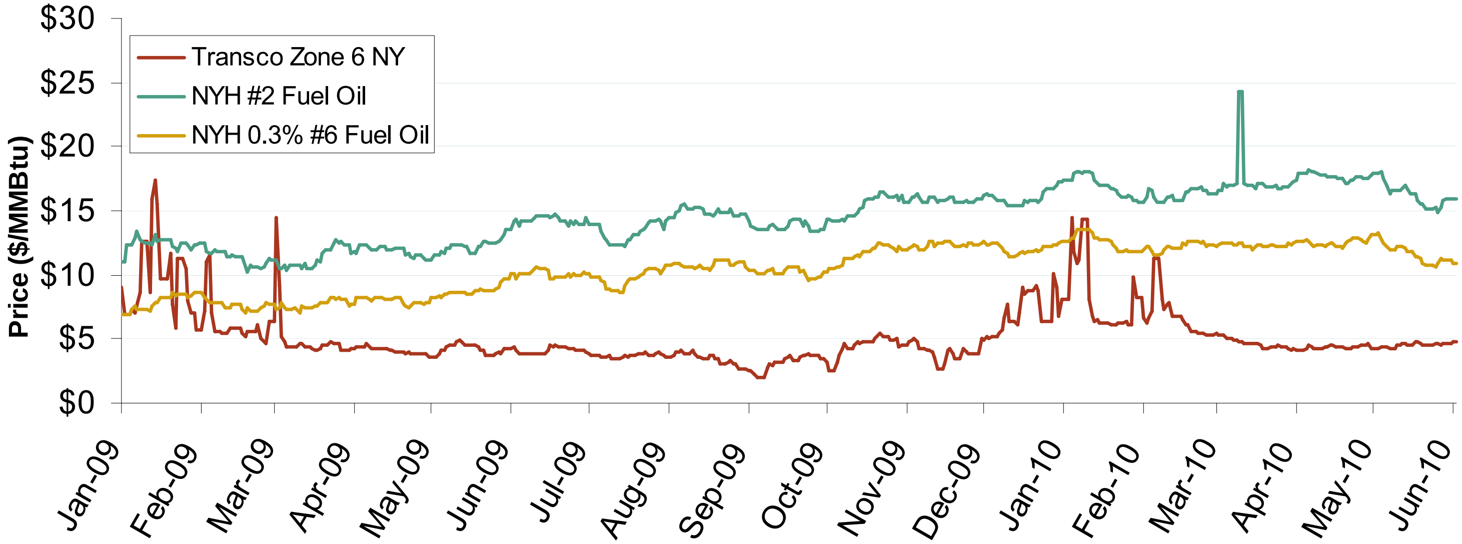


Source: Derived from Bloomberg

Update June 4, 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

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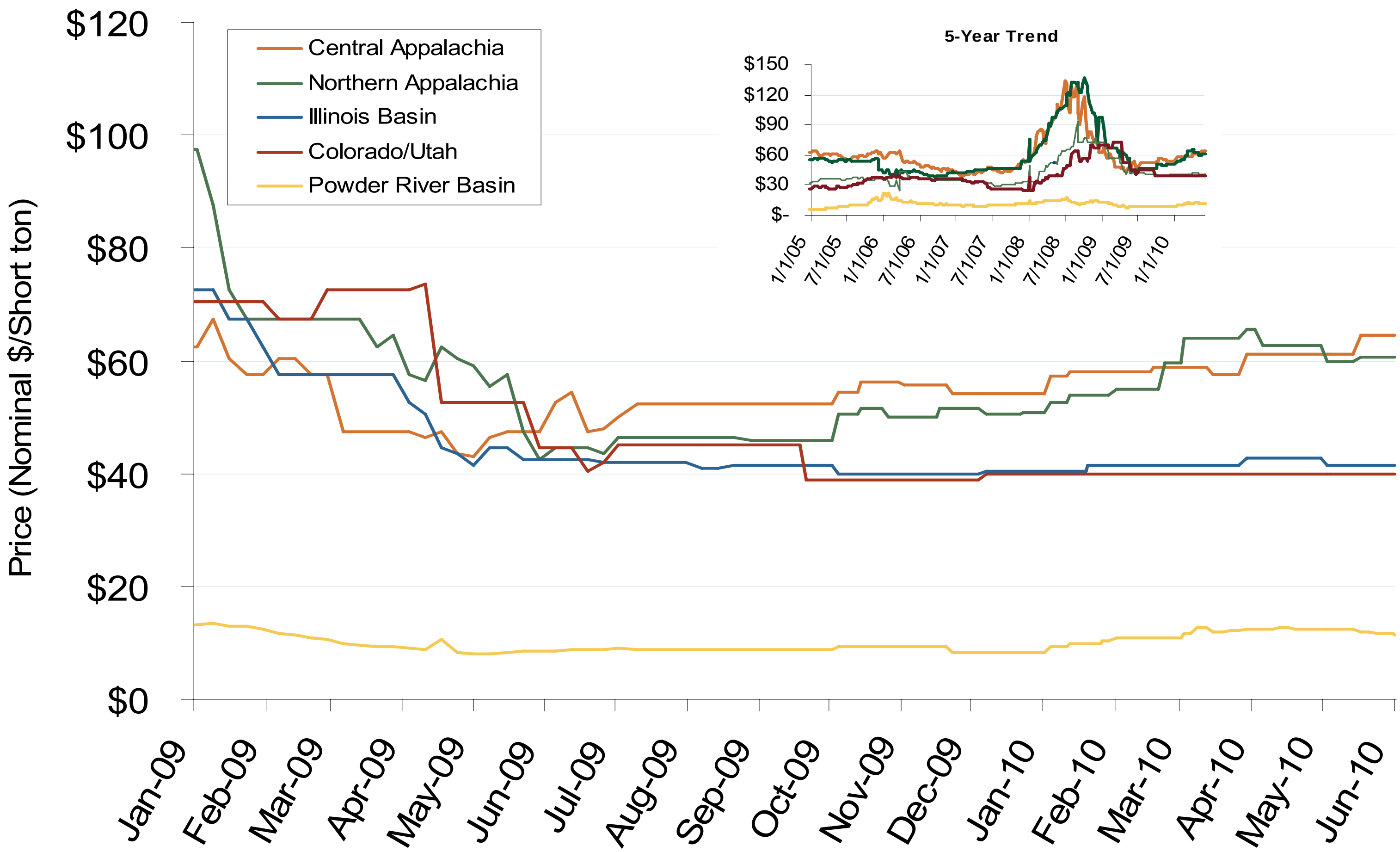
Regional Coal Spot Prices

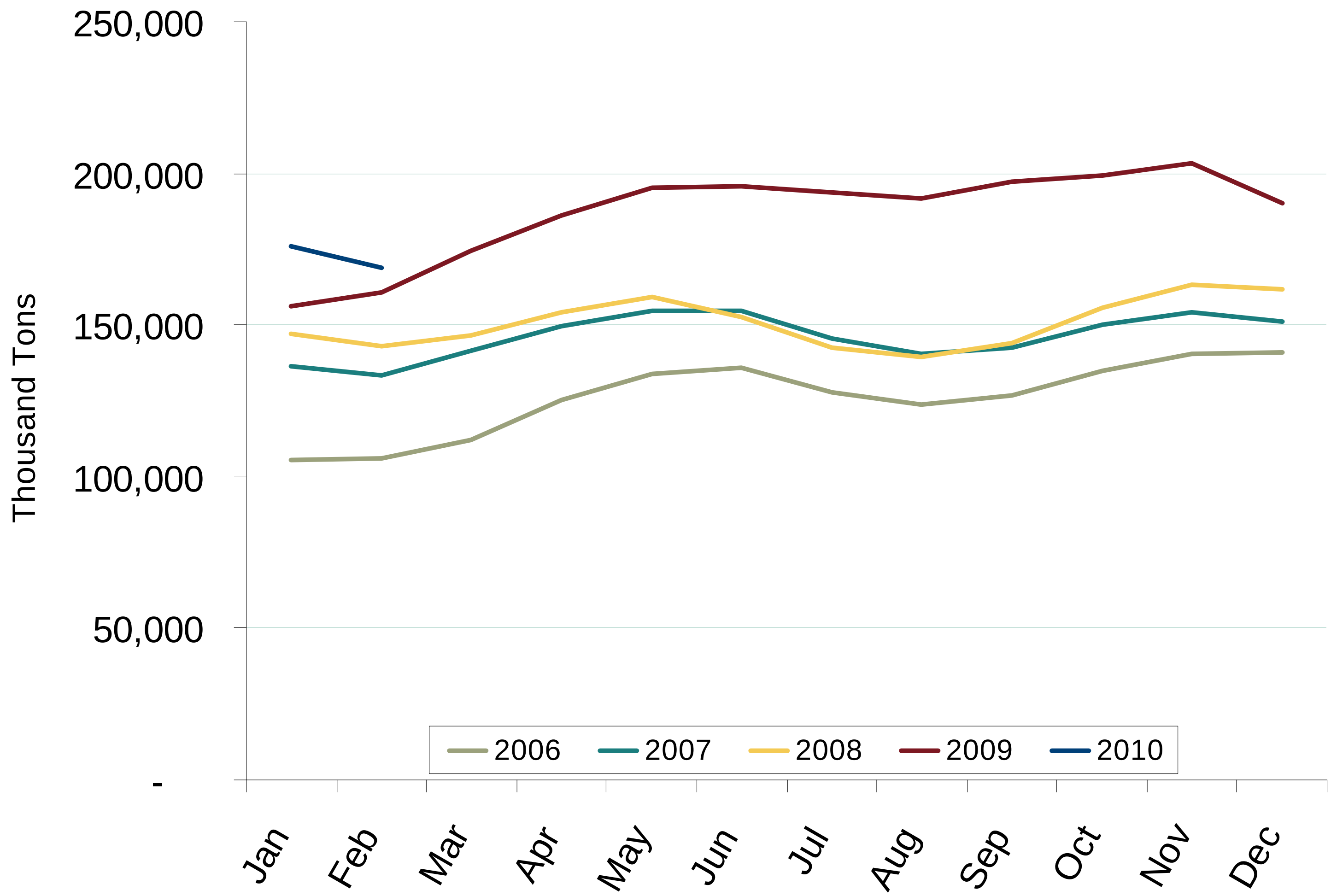


Note: the Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

Updated June 7, 2010

U.S. Coal Stockpiles at Electric Power Generating Facilities



Source: Energy Information Administration. Excludes Industrial and Commercial Plants.

Updated June 7, 2010