

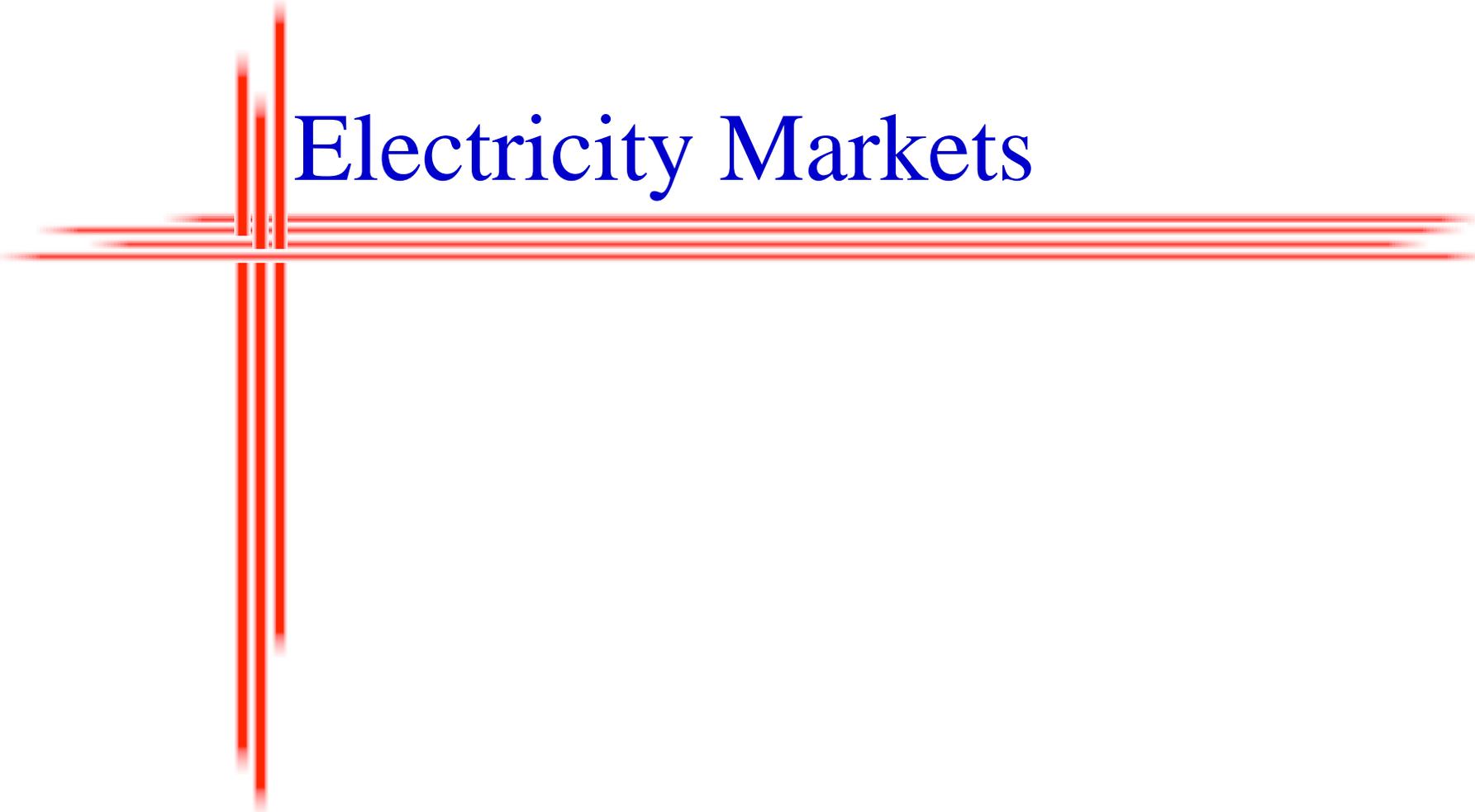
# OE ENERGY MARKET SNAPSHOT

## Western States Version – June 2010 Data

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

Office of Enforcement  
Federal Energy Regulatory Commission  
July 2010

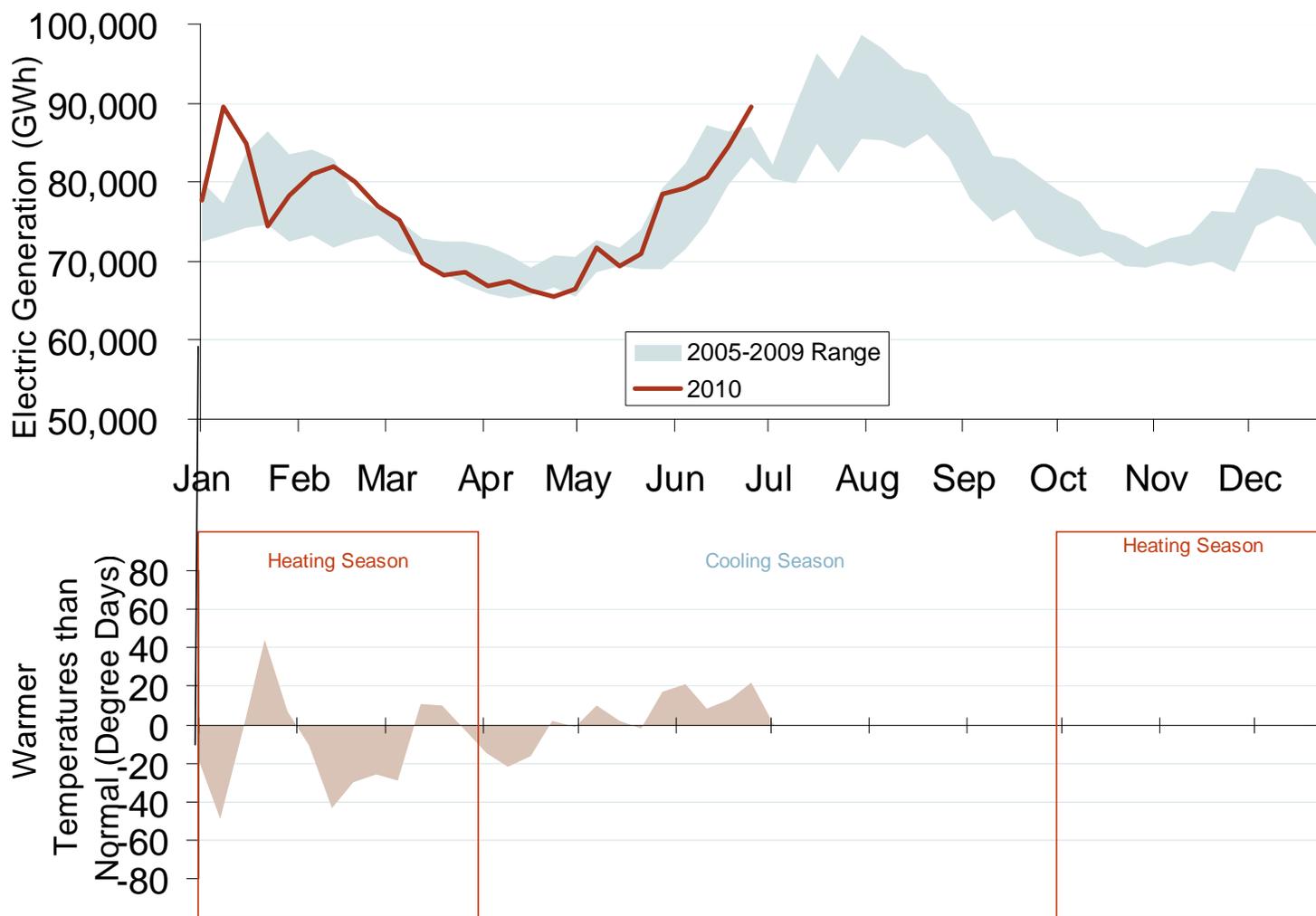


# Electricity Markets

Electric Market Overview: Generation Output and Temperatures

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

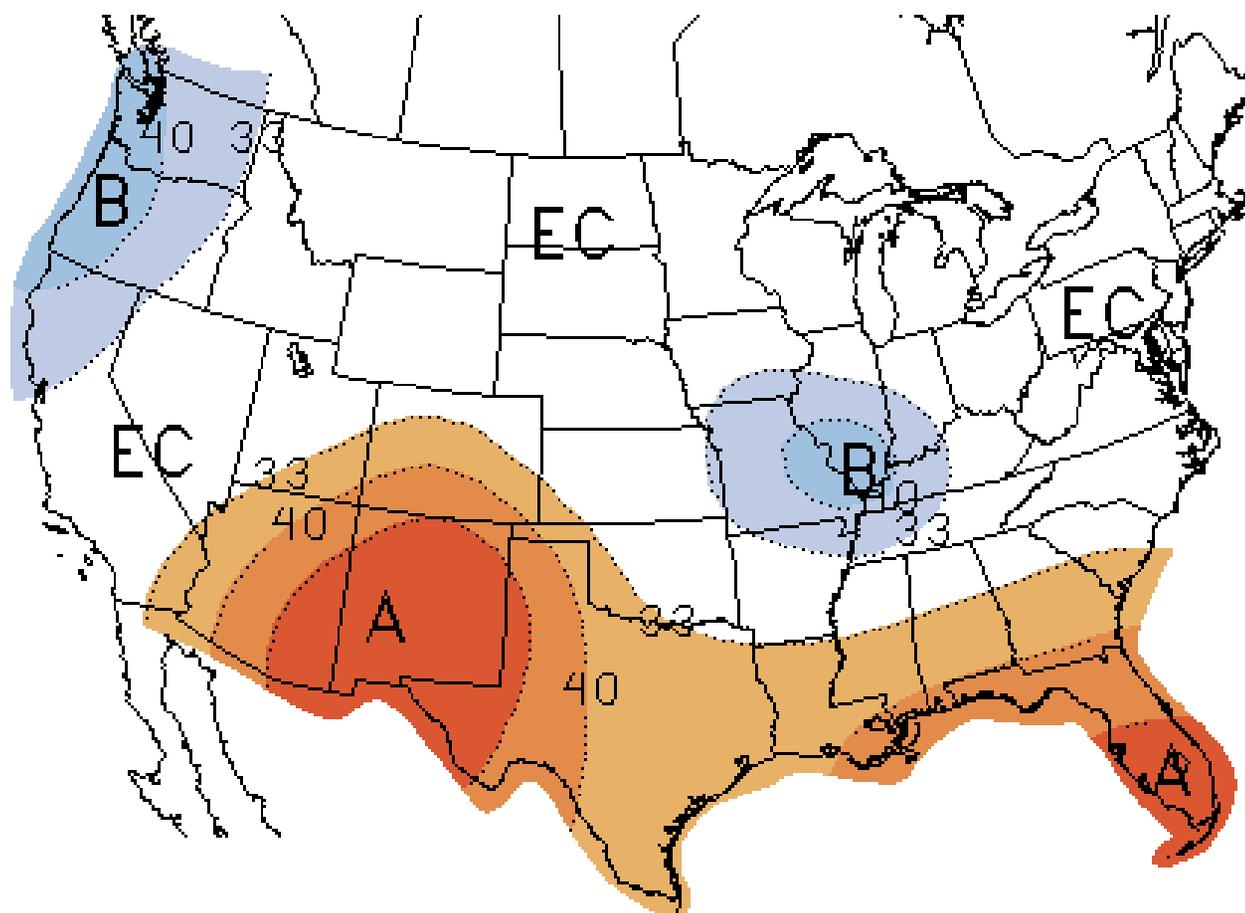
# Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from *EI* and NOAA data.

Updated July 9, 2010

## NOAA's Monthly Temperature Forecast Made June 30, Valid for July 2010



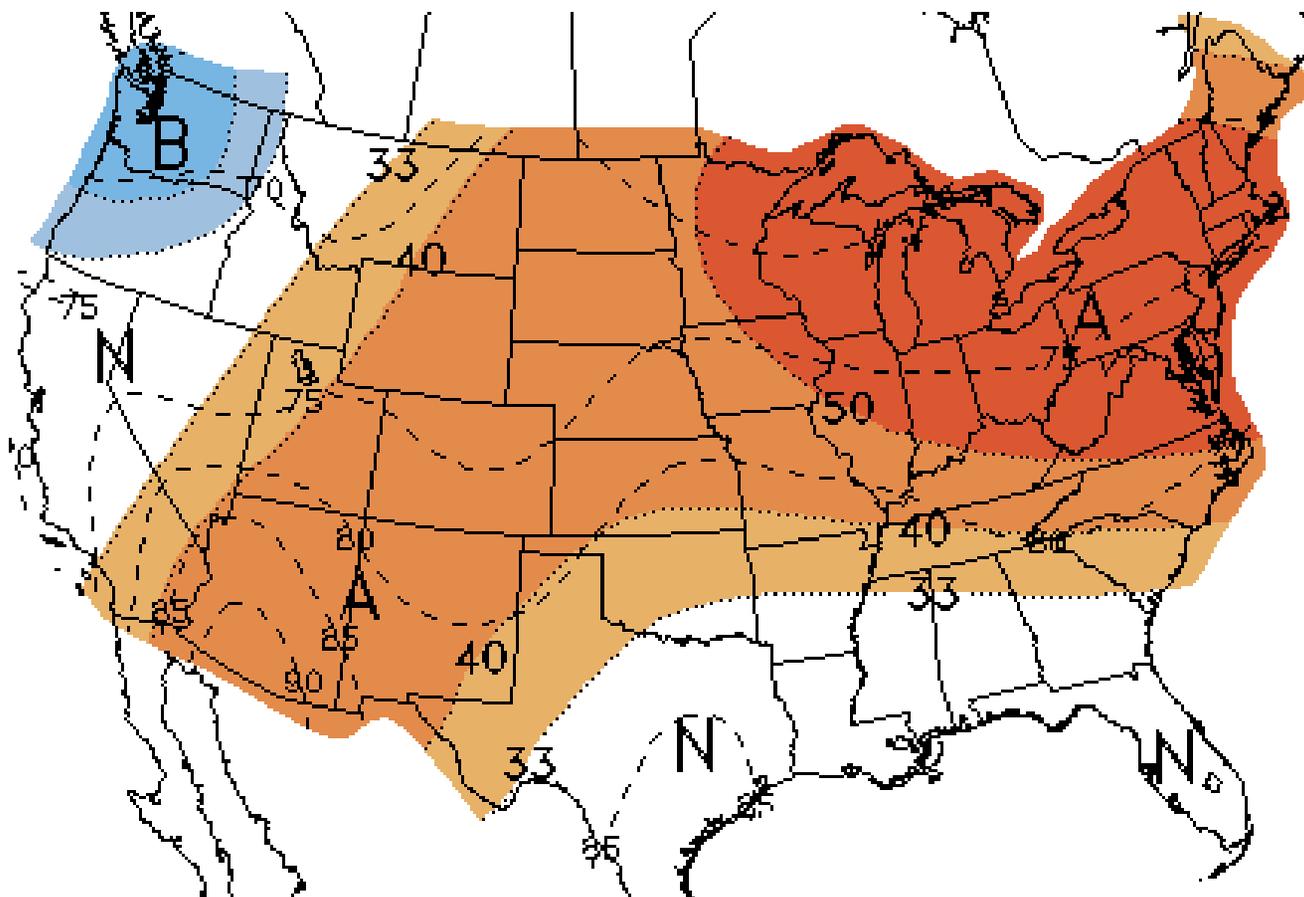
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.

Source: NOAA

Updated July 9, 2010

3012

## NOAA's 8 to 14 Day Temperature Forecast Made July 8, Valid for July 16 - 22, 2010



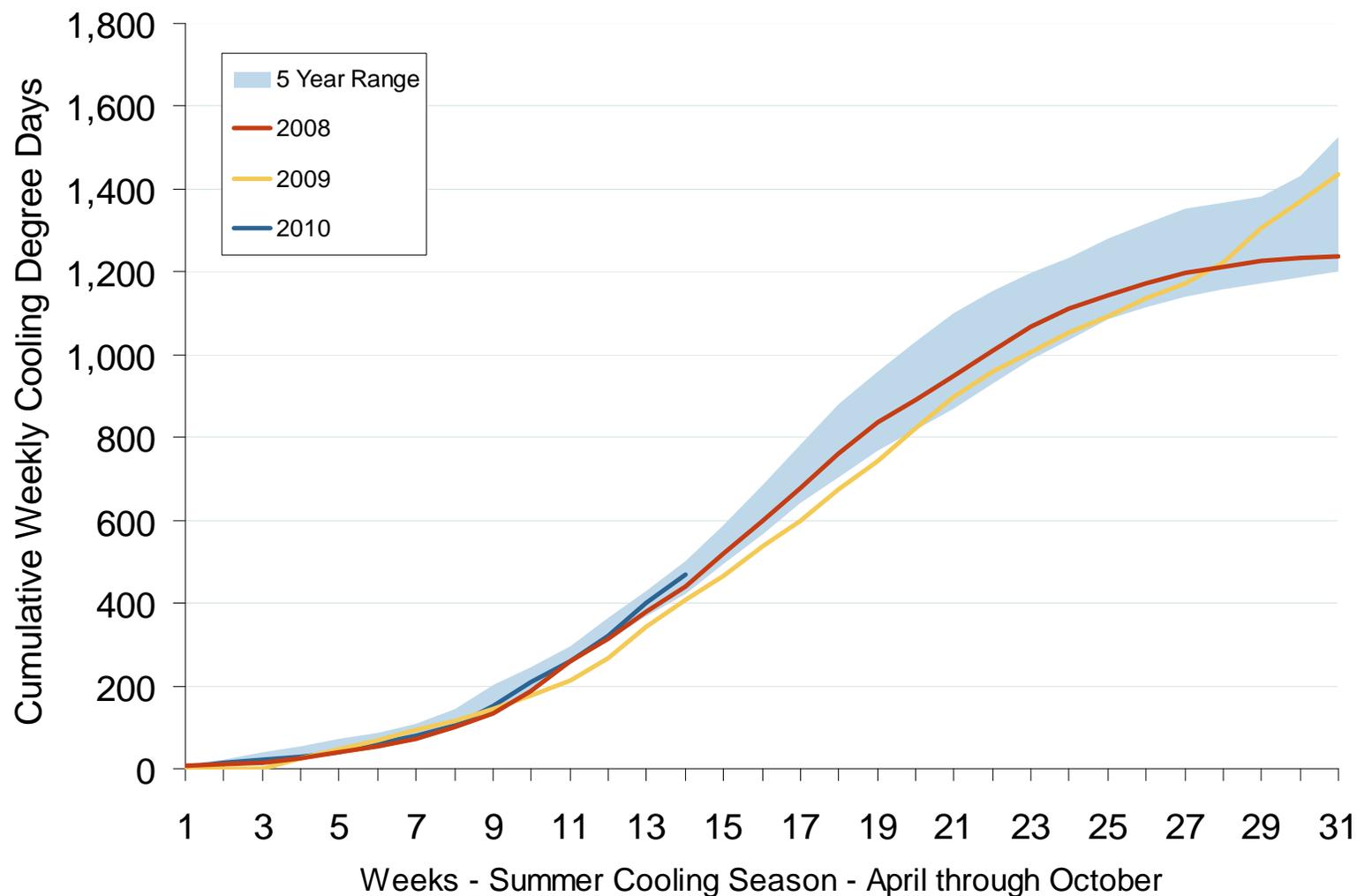
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: NOAA

Updated July 9, 2010

3012

## U. S. Summer Cumulative Cooling Degree Days - 2010

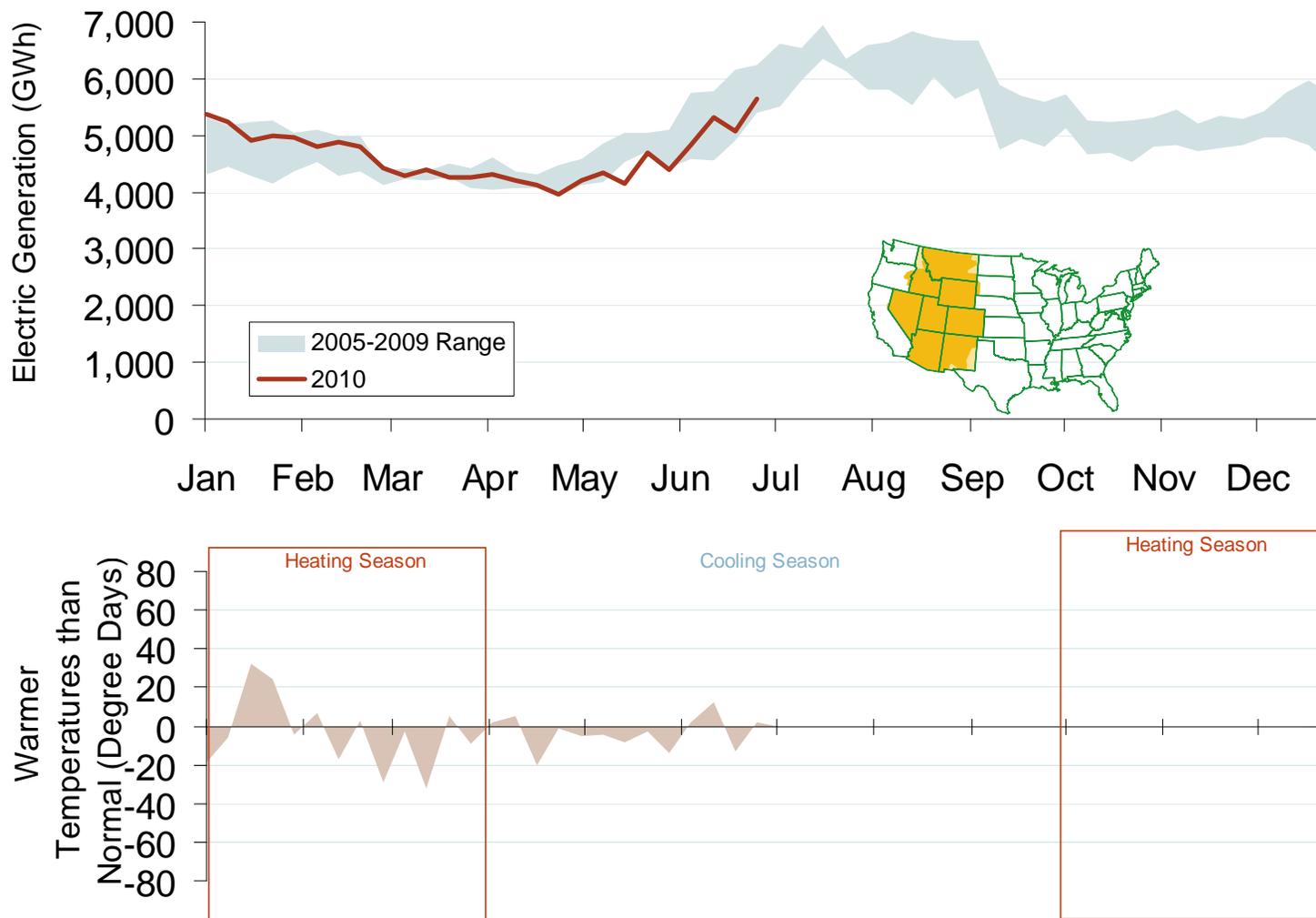


Source: Derived from NOAA data.

Updated July 9, 2010

3023

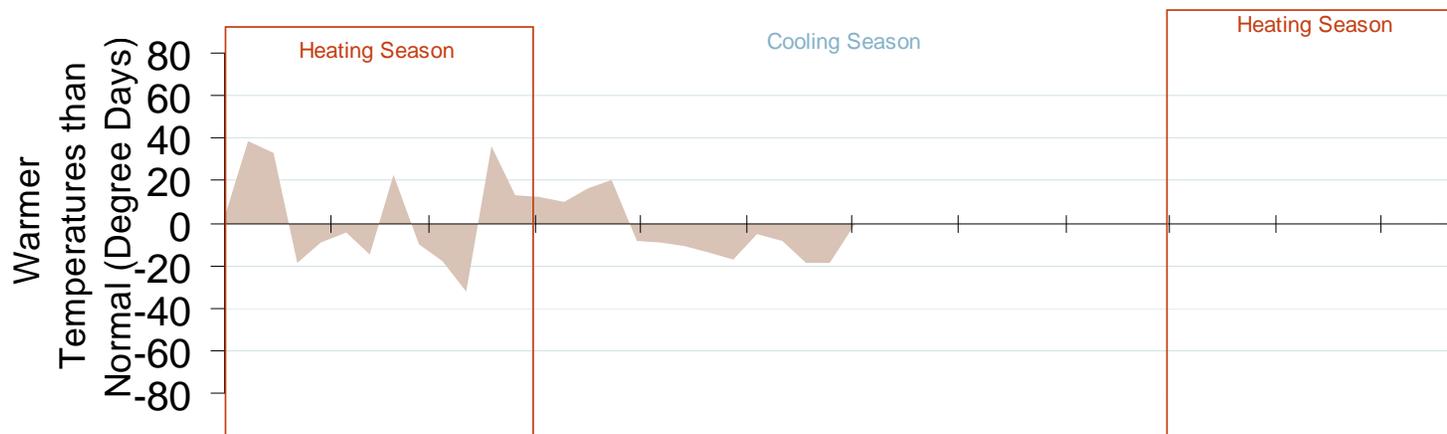
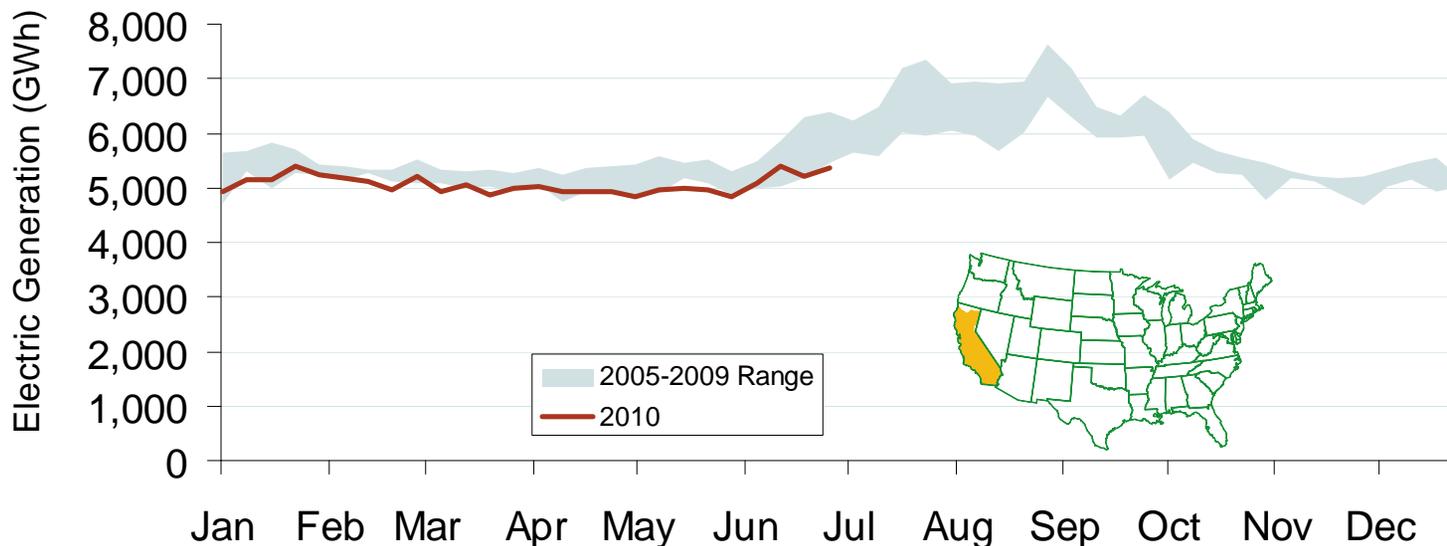
# Weekly Electric Generation Output and Temperatures Rocky Mountains Region



Source: Derived from EEI and NOAA data.

Updated July 9, 2010

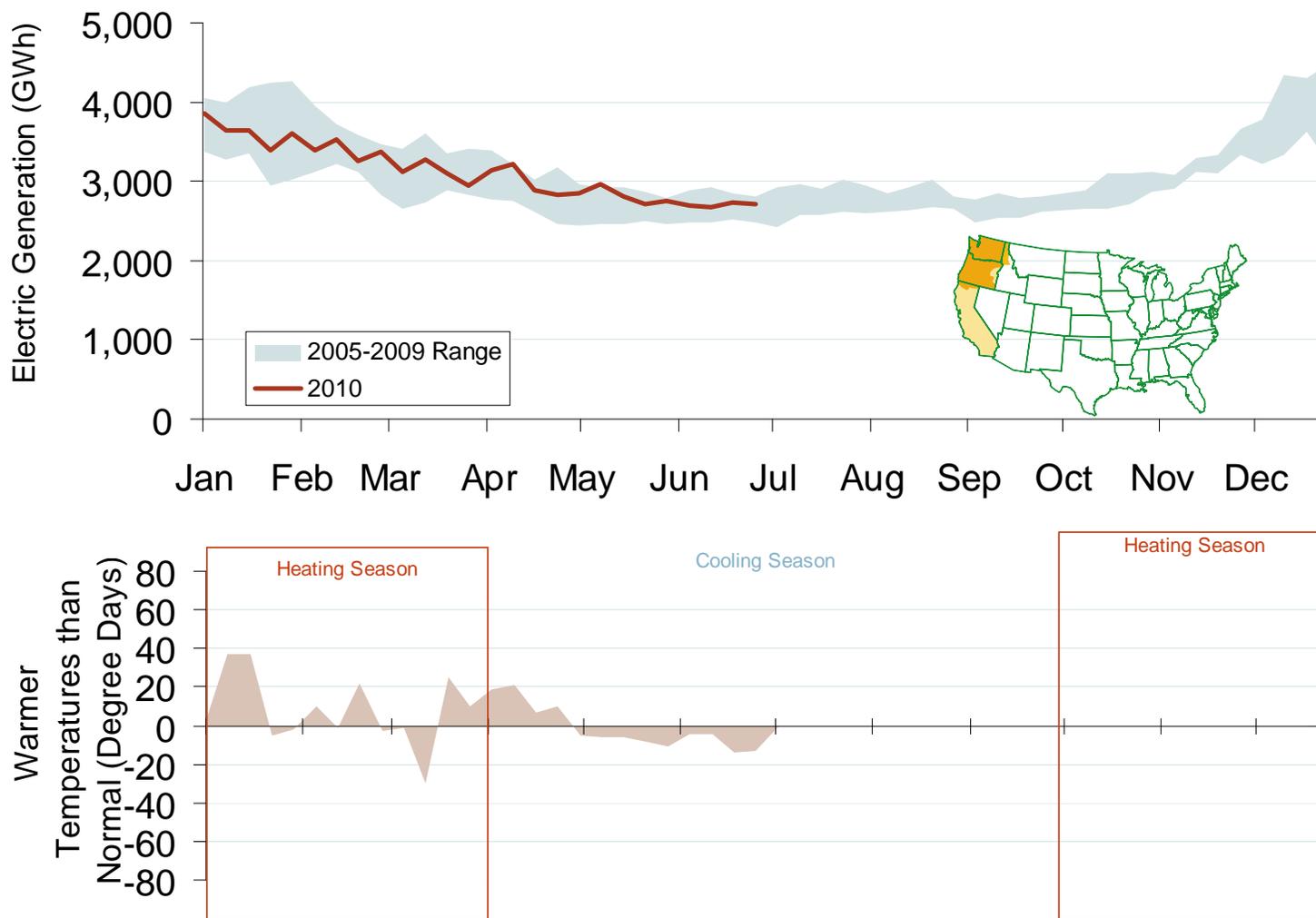
# Weekly Electric Generation Output and Temperatures California



Source: Derived from EEI and NOAA data.

Updated July 9, 2010

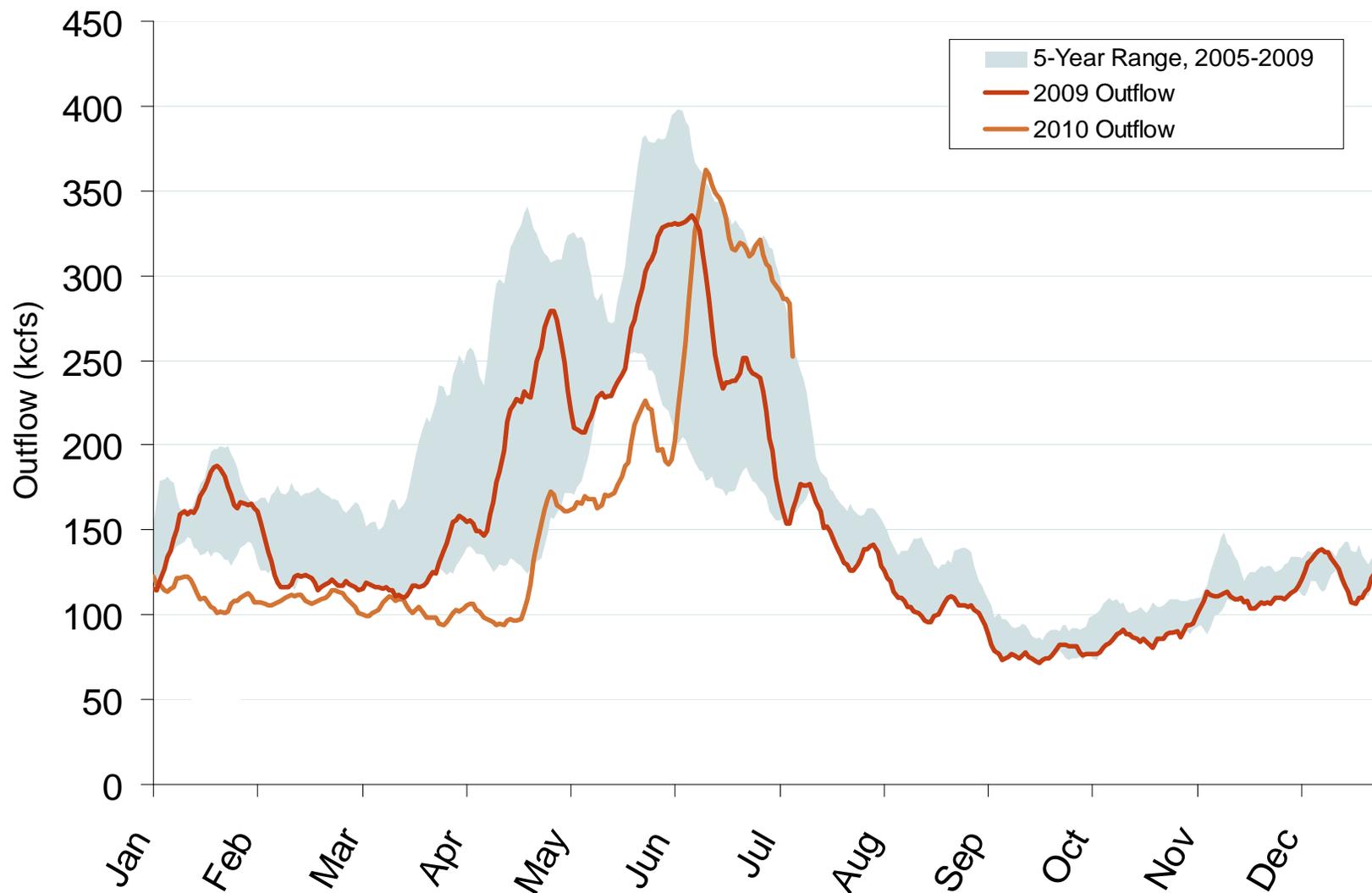
# Weekly Electric Generation Output and Temperatures Pacific Northwest Region



Source: Derived from *EEl* and NOAA data.

Updated July 9, 2010

## Stream Flow at The Dalles Dam

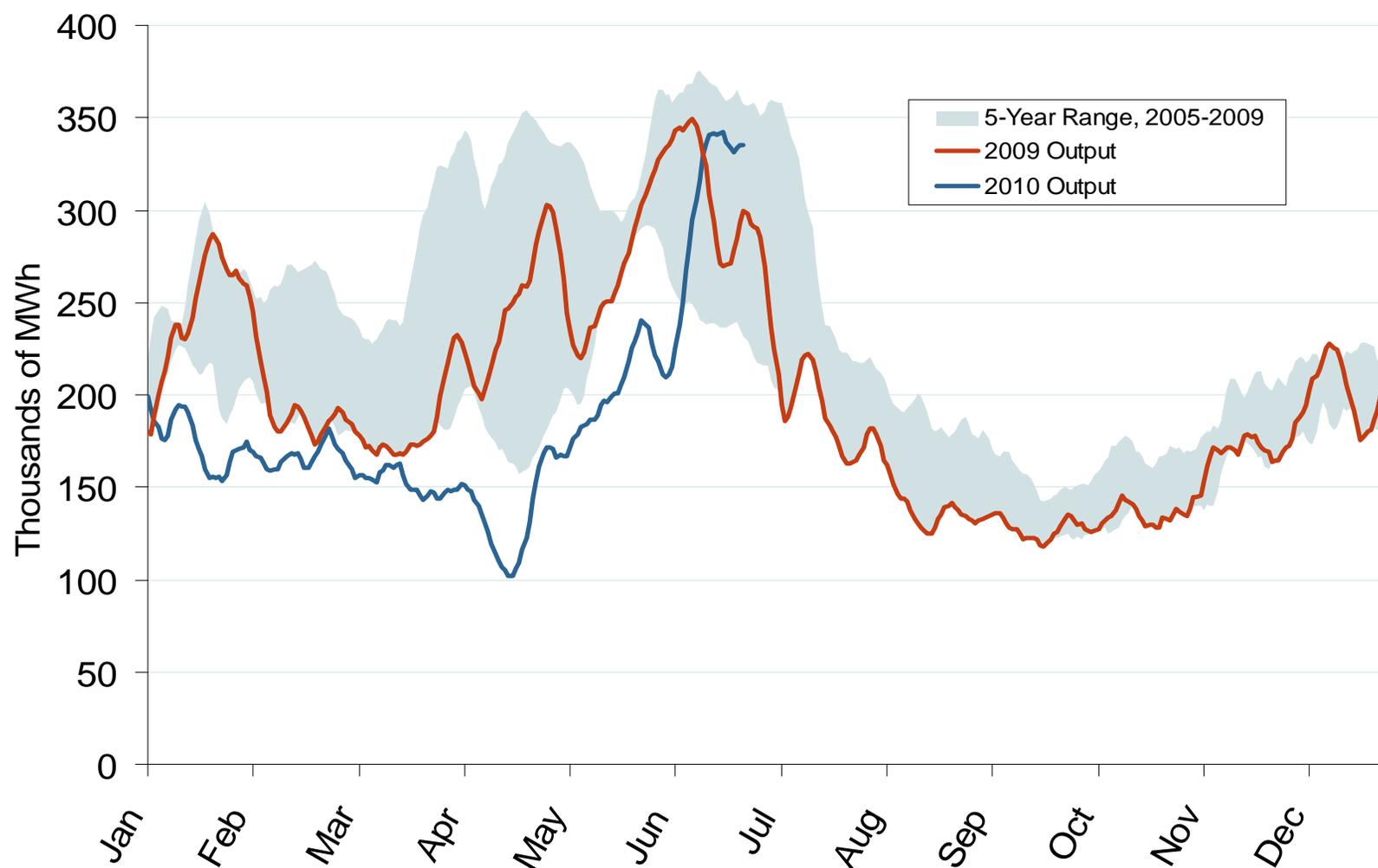


Source: Derived from USACE data.  
Trend lines are 7-day moving averages.

Updated July 9, 2010

1103

## Pacific Northwest Hydroelectric Production

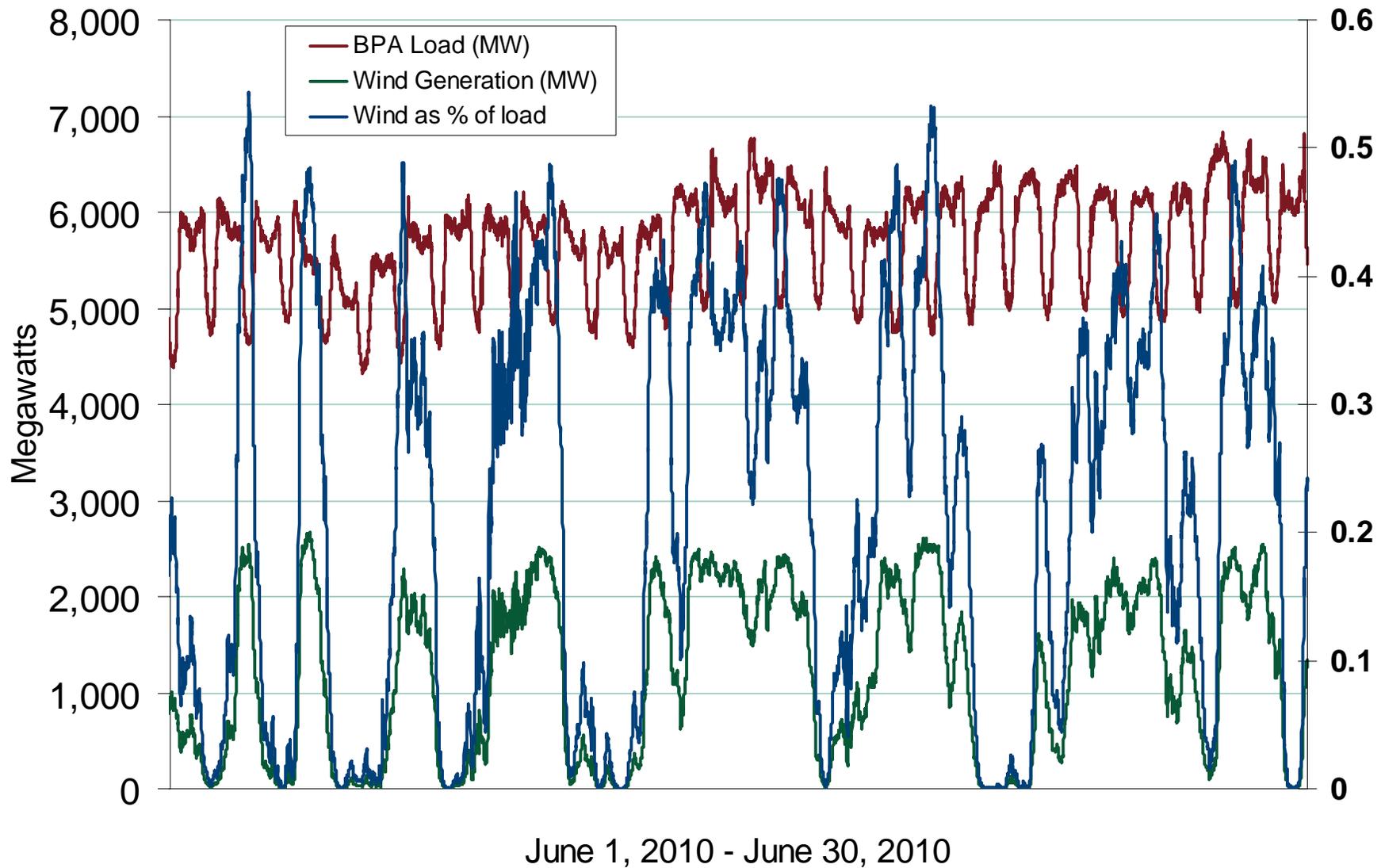


Source: Derived from USACE data reflecting the output of the 24 largest facilities.  
Trend lines are 7-day moving averages.

Updated July 9, 2010

1106

## Northwest Electric Market: BPA Wind Generation

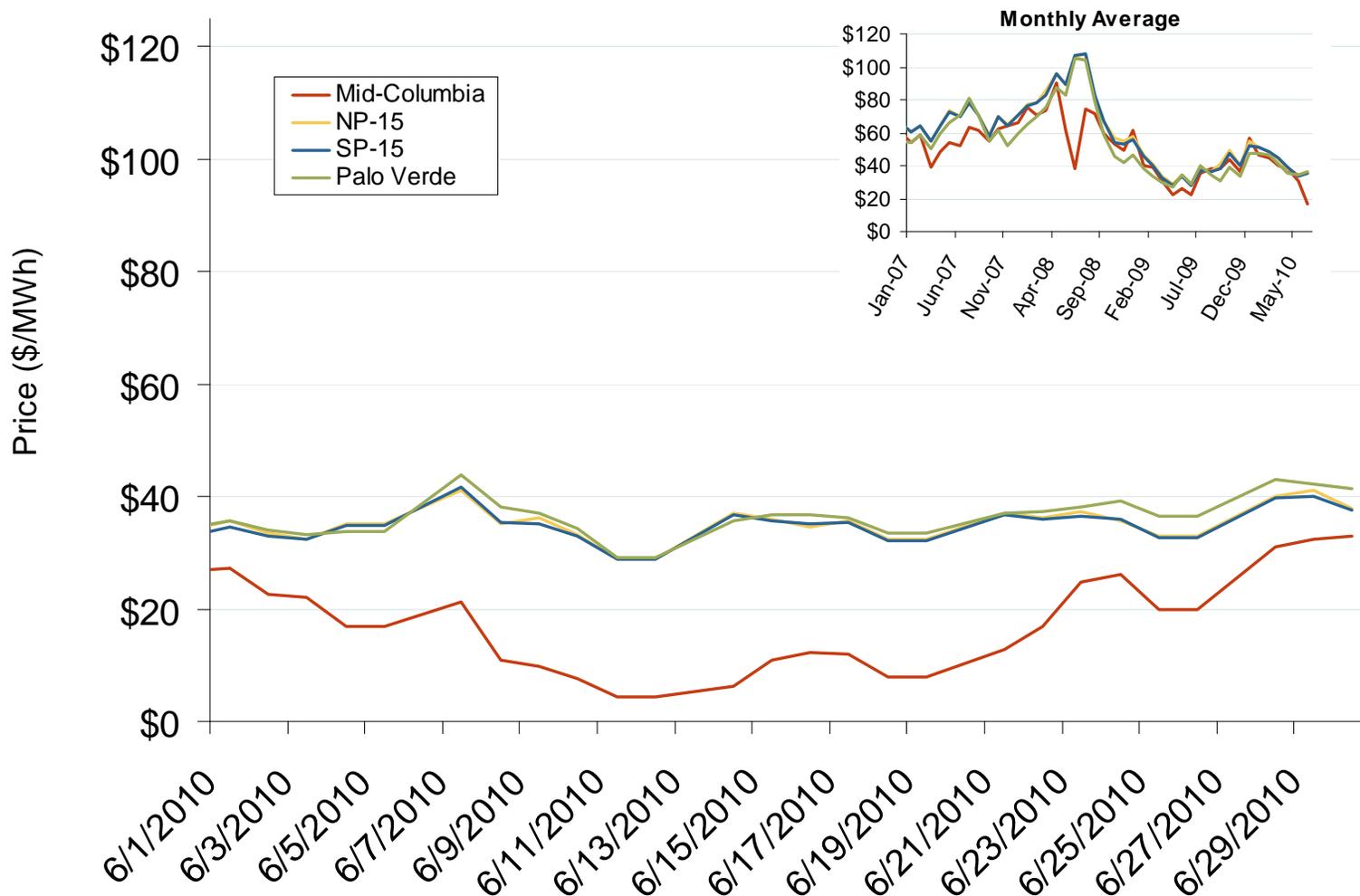
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**BPA Wind Generation – June 2010**

Source: Bonneville Power Administration

Updated July 28, 2010

1106

## Western Daily Bilateral Day-Ahead On-Peak Prices

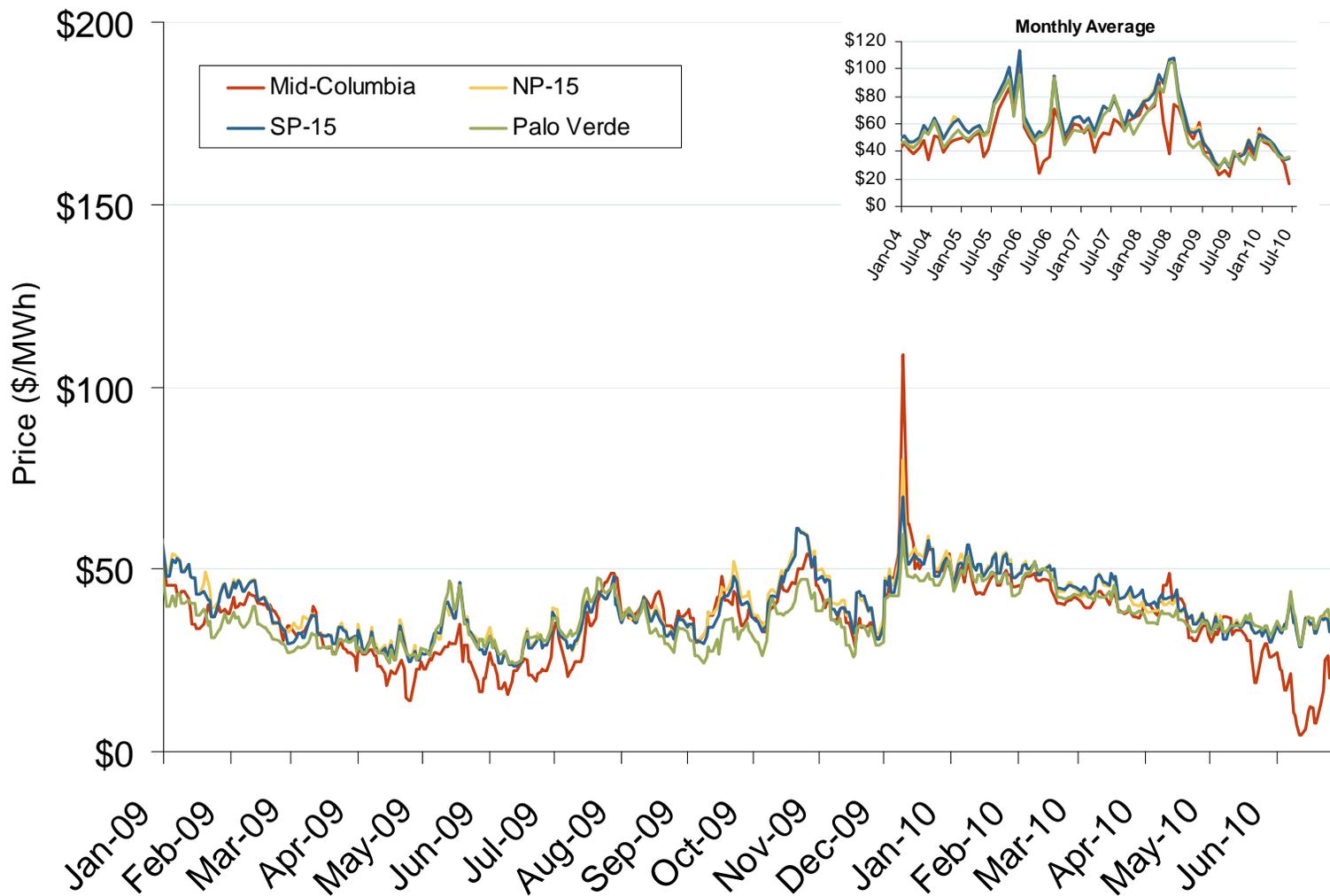


Source: Derived from *Platts* data.

Updated July 9, 2010

11022

## Western Daily Bilateral Day-Ahead On-Peak Prices

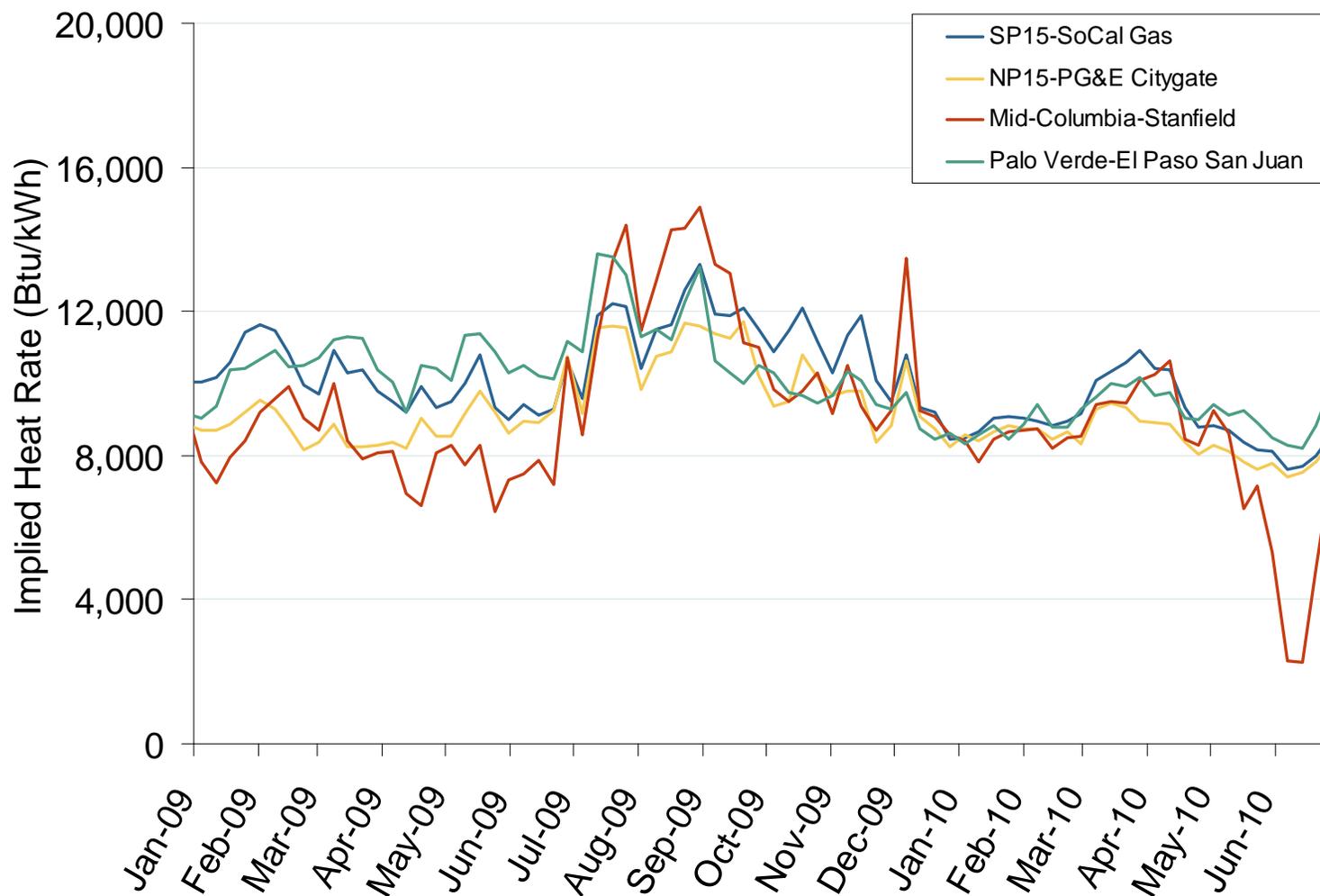


Source: Derived from *Platts* data.

Updated July 9, 2010

1006

## Implied Heat Rates at Western Trading Points Weekly Averages

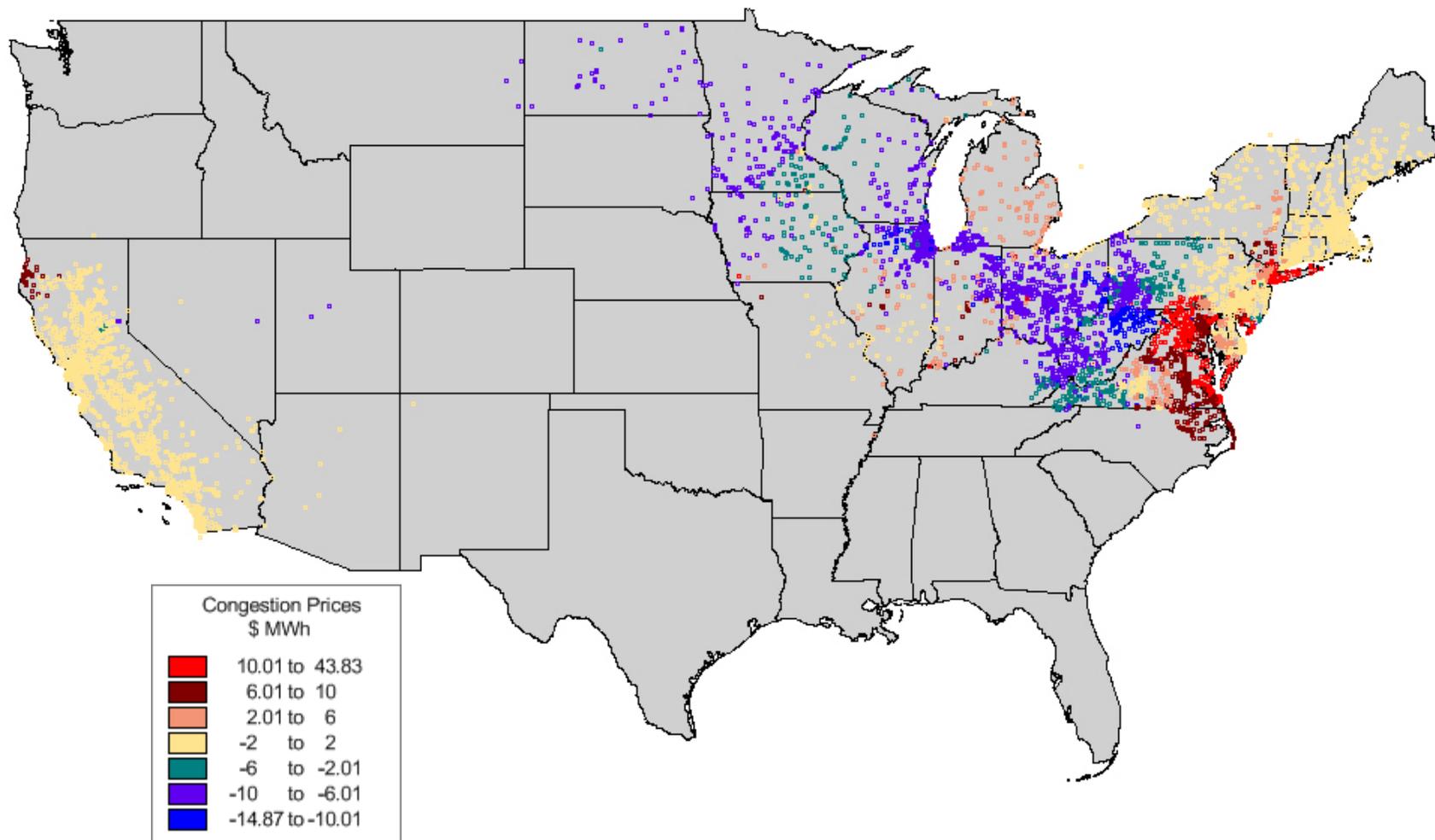


Source: Derived from *Platts* on-peak electric and natural gas price data.

Updated July 9, 2010

1143

## Day Ahead On-Peak Congestion Average Monthly Prices June 2010

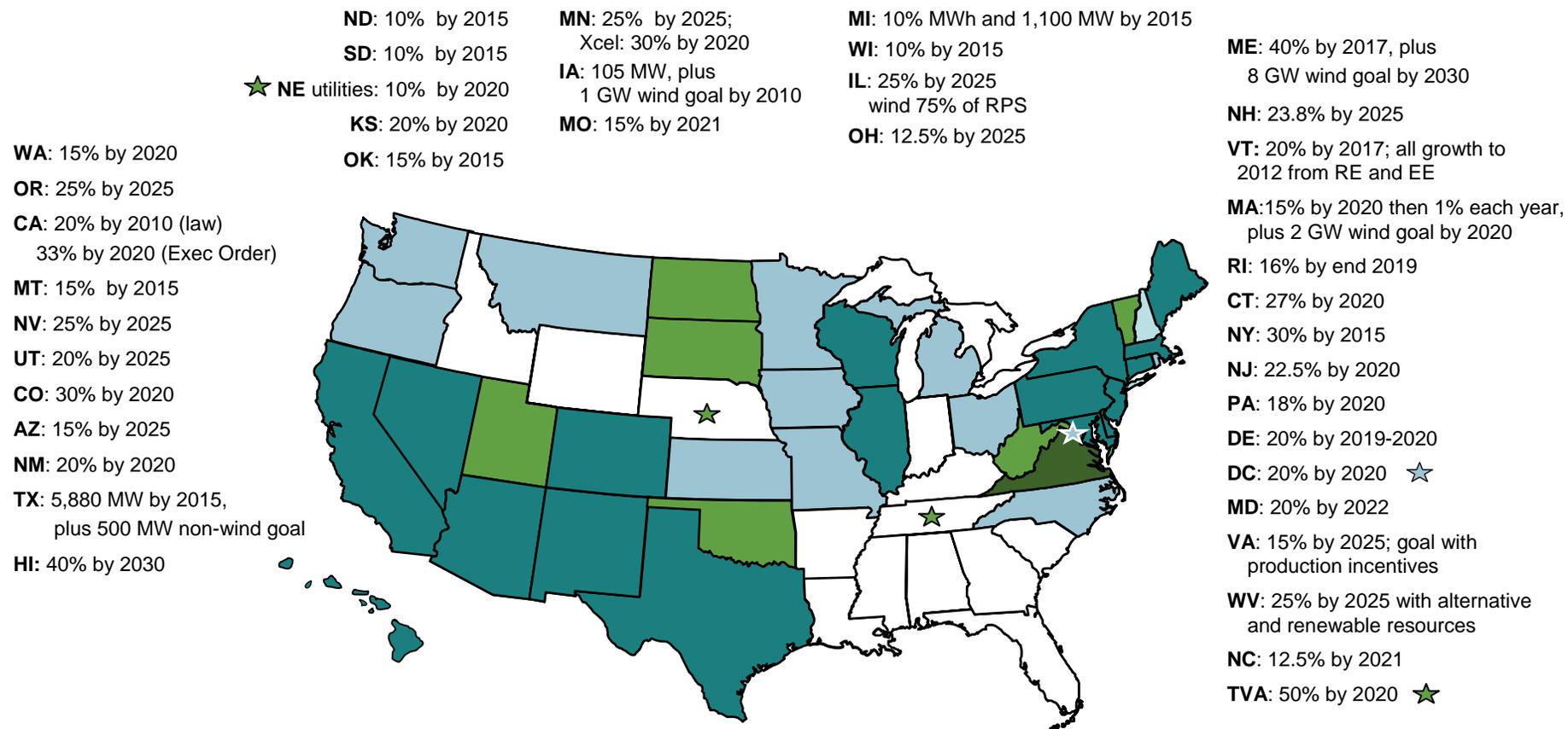


Source: Velocity Suite

Updated July 9, 2010

10005

## Renewable Power &amp; Energy Efficiency Market: Renewable Portfolio Standards

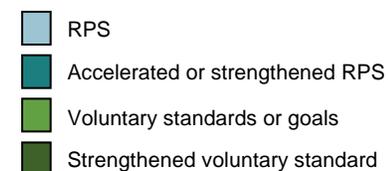
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**30 States including D.C. have Renewable Energy Portfolio Standards (RPS)**Updates at: <http://www.ferc.gov/market-oversight/otr-mkts/renew.asp>

**Notes:** An RPS requires a percent of an electric provider's energy sales (MWh) or installed capacity (MW) to come from renewable resources. Most specify sales (MWh). Map percents are final years' targets. Alaska has no RPS.

\* Nebraska does not have a state-wide goal, but its two largest public power districts do.

TVA's goal is not state policy; it calls for 50% zero- or low-carbon generation by 2020.

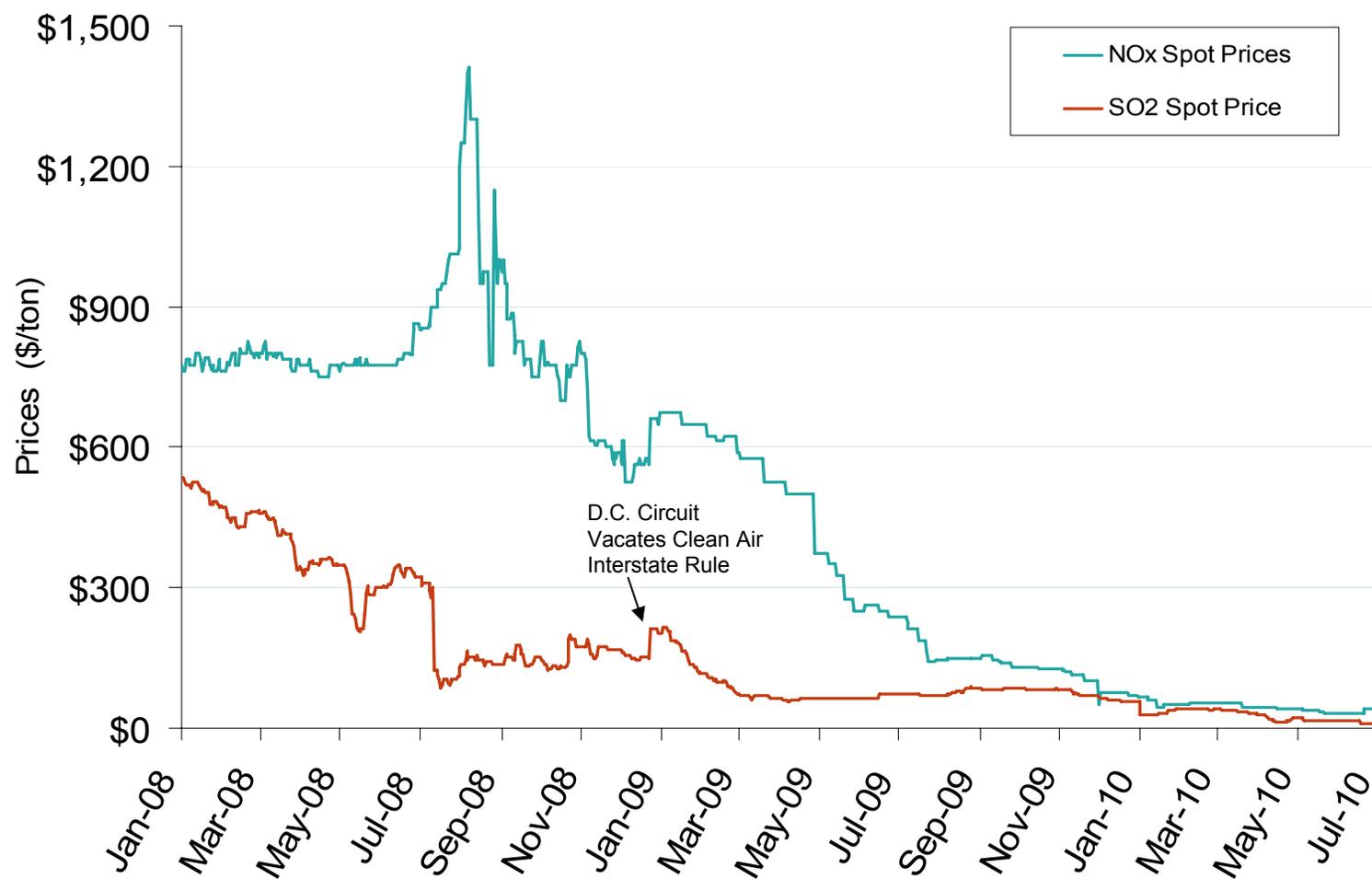
**Sources:** Derived from data in: LBNL, PUCs, State legislative tracking services, Pew Center. Details, including timelines, are in the Database of State Incentives for Renewables and Energy Efficiency: <http://www.dsireusa.org>



Updated June 29, 2010

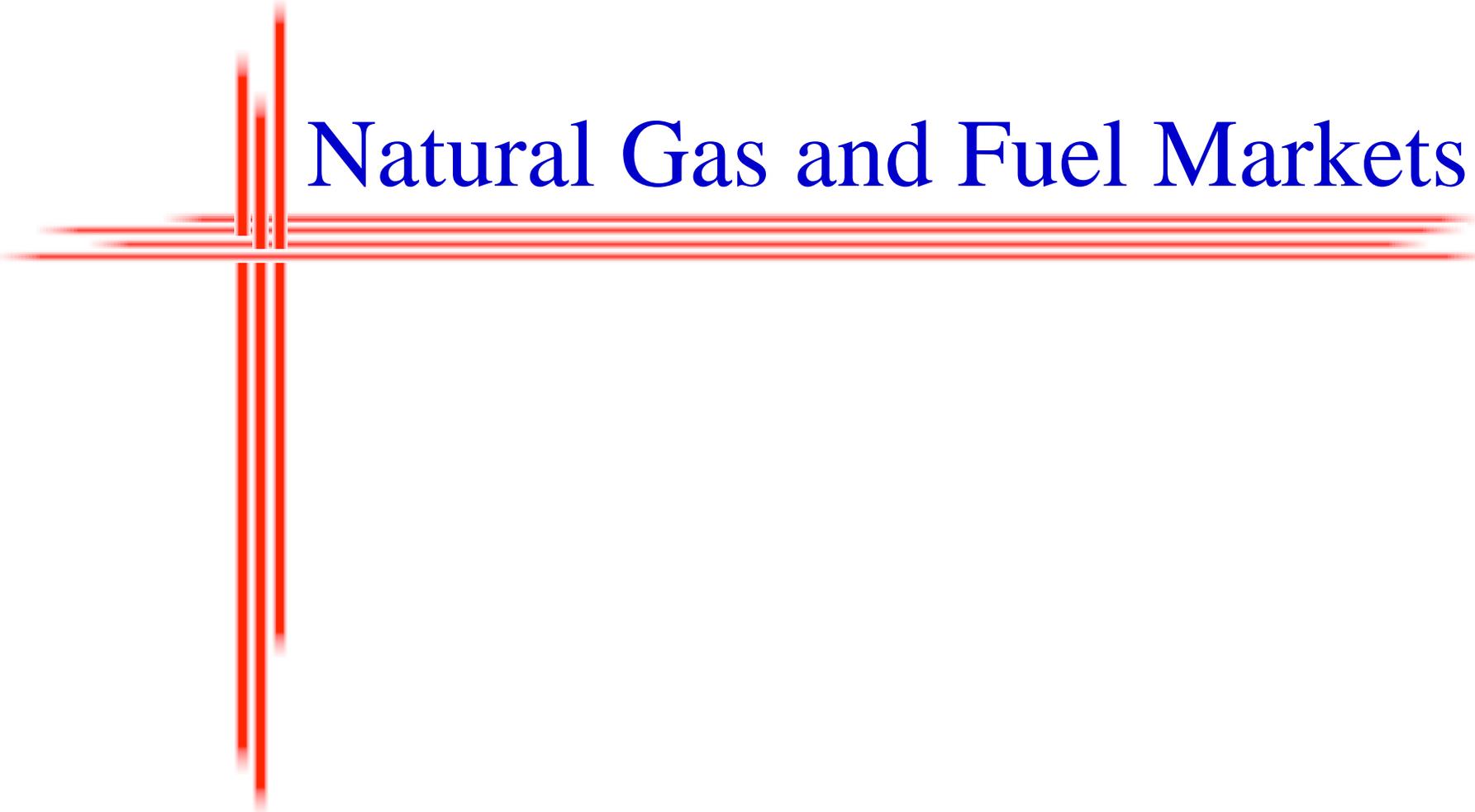
34002

## SO<sub>2</sub> Allowance Spot Prices and NOx Seasonal Allowance Spot Prices

Source: Derived from *Bloomberg*.

Updated July 9, 2010

3004

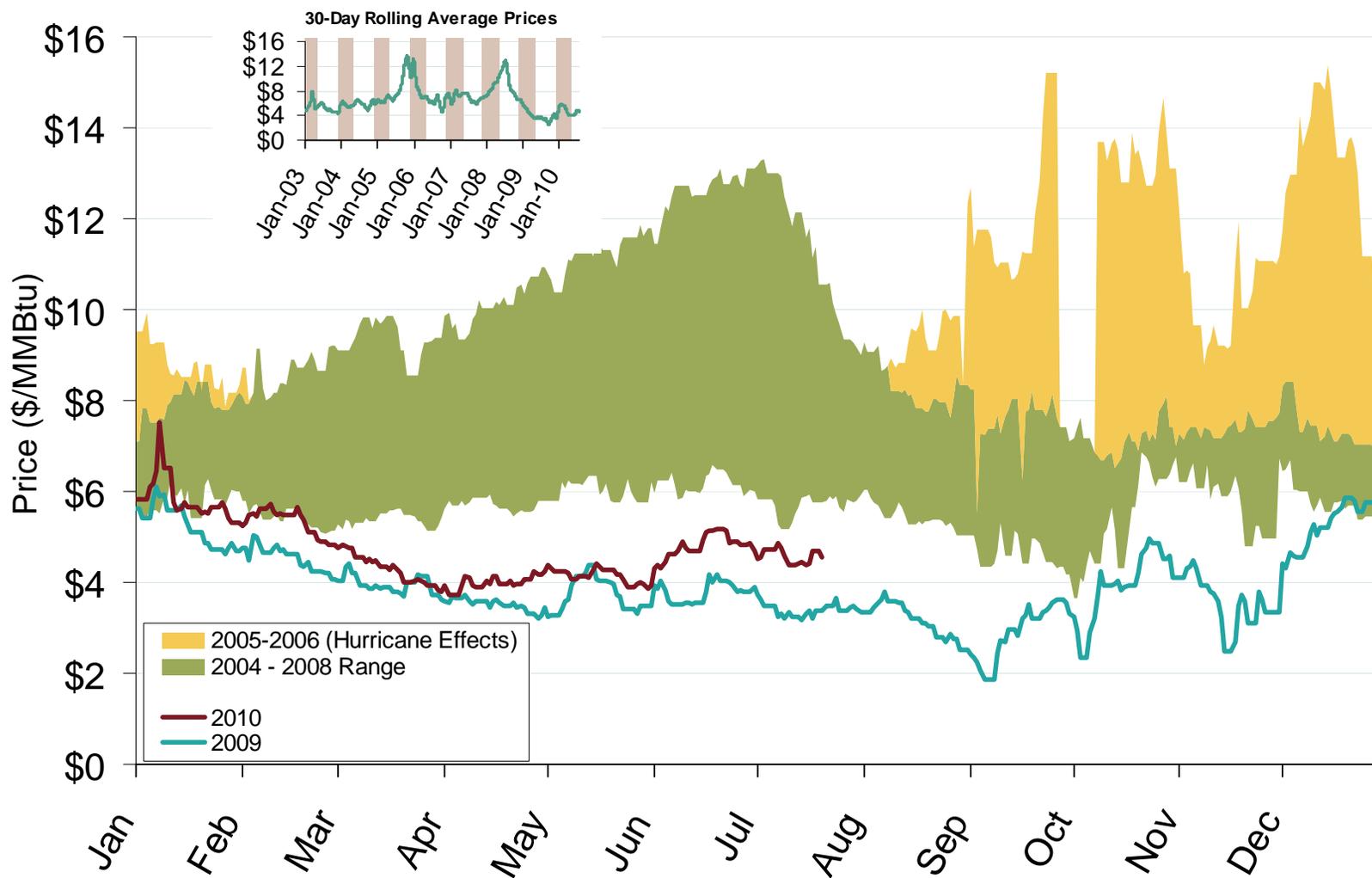
A decorative graphic consisting of several thick, parallel red lines. One vertical line runs down the left side of the page, and several horizontal lines cross it, creating a grid-like structure. The lines are slightly blurred and have a glowing effect.

# Natural Gas and Fuel Markets

## 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)

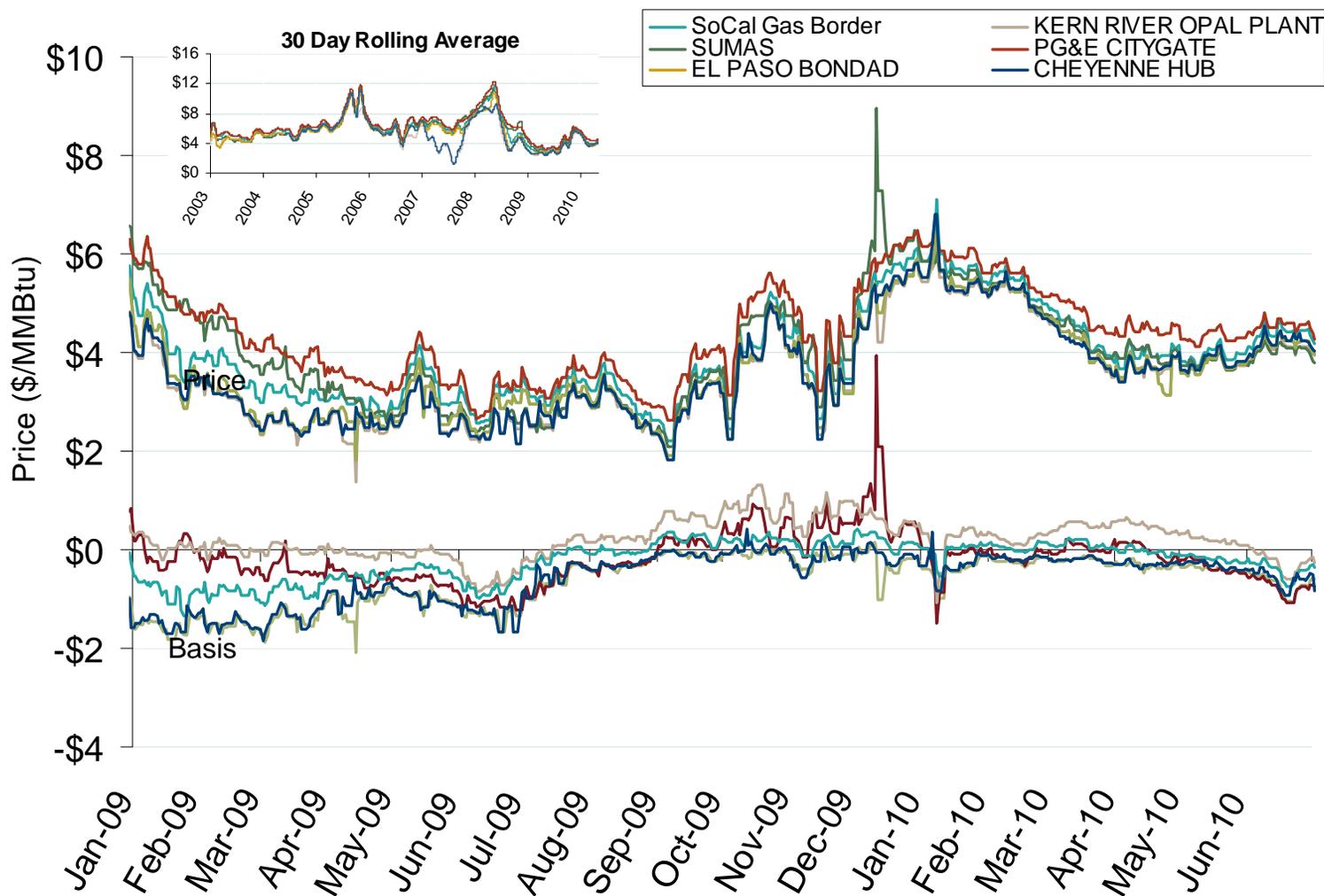
## Henry Hub Natural Gas Daily Spot Prices

Source: Derived from *Platts* data.

Updated July 21, 2010

2085

## Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

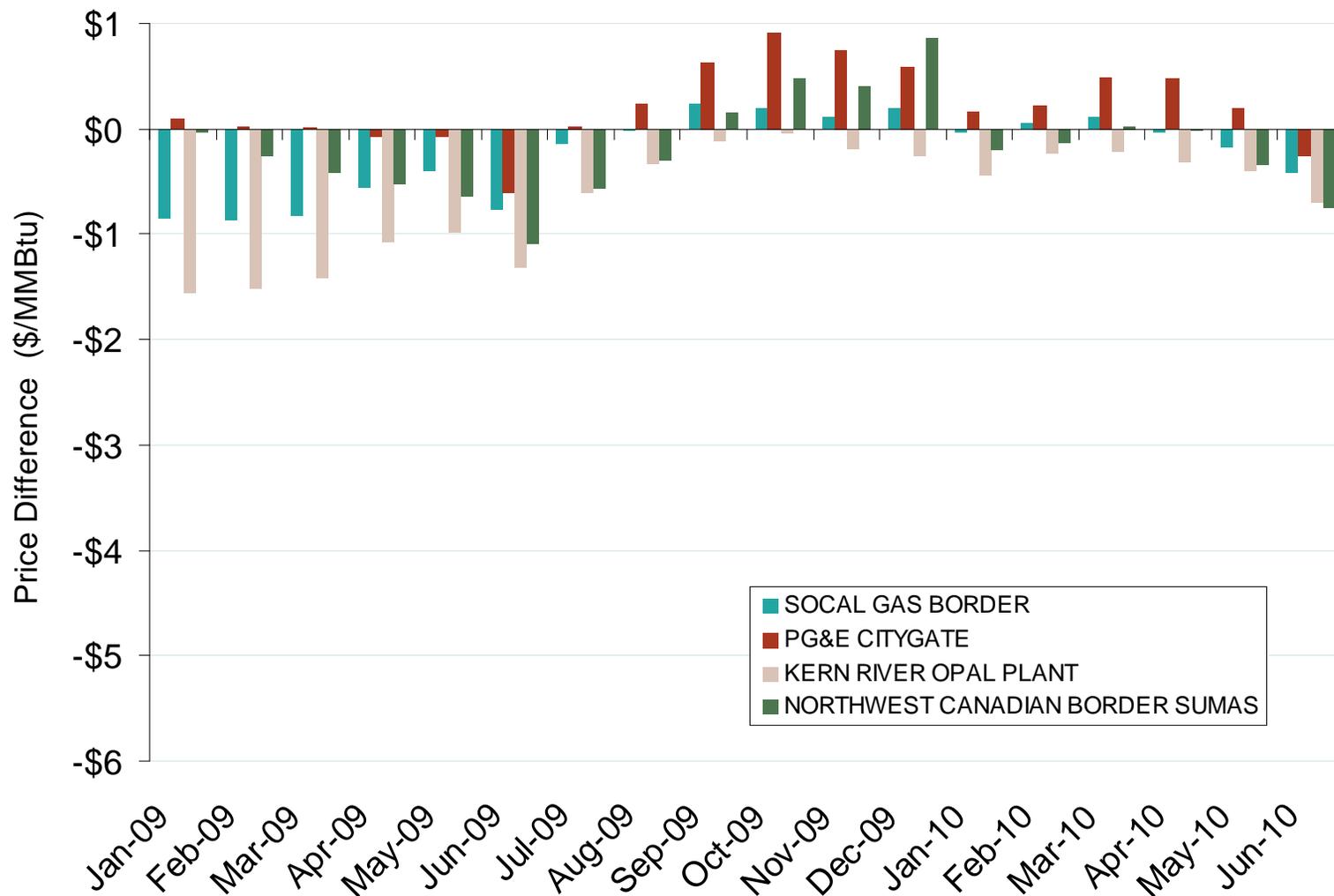
Updated July 9, 2010

2072

## Western Natural Gas Market: Average Basis to Henry Hub

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

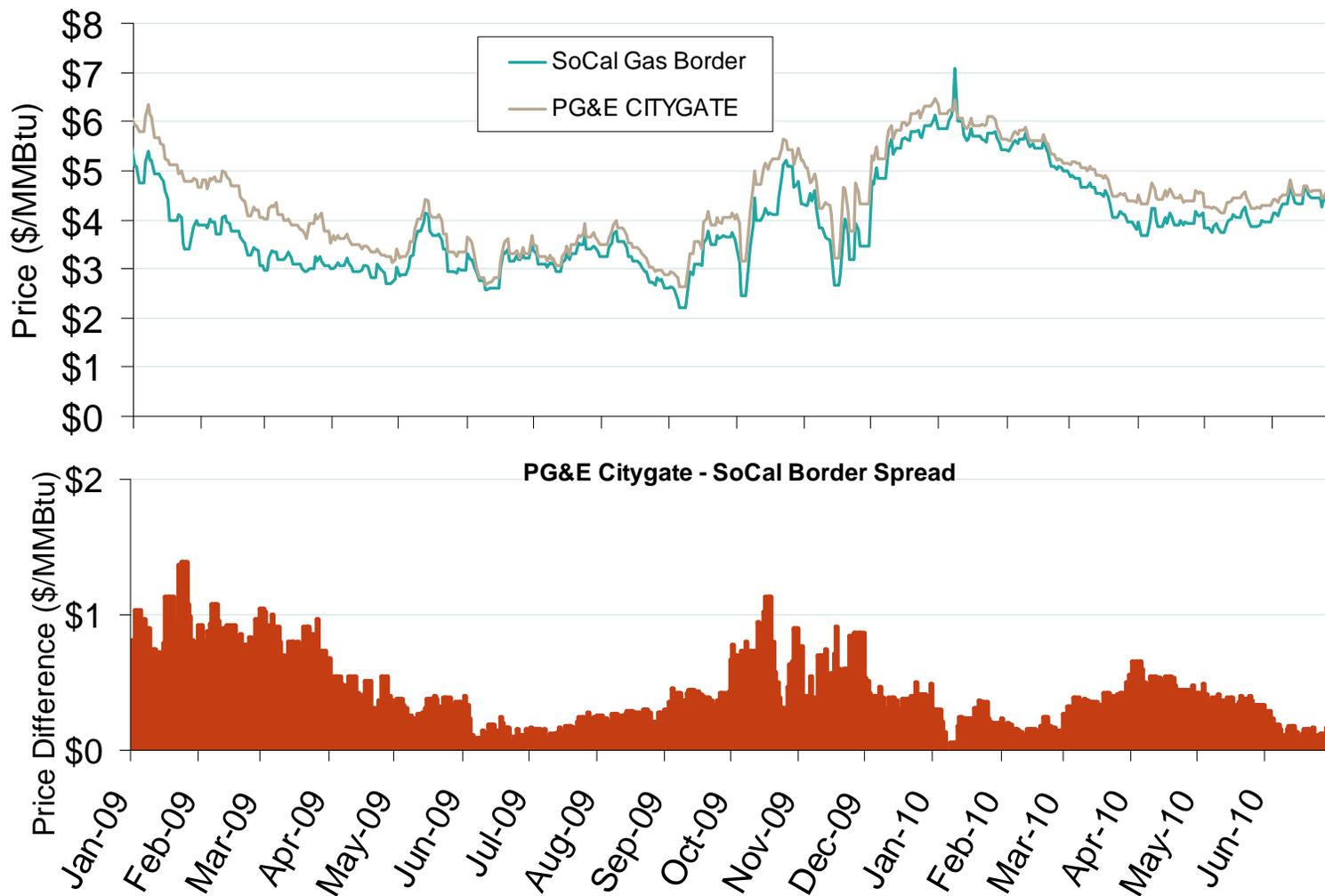
## Western Monthly Average Basis Value to Henry Hub

Source: Derived from *Platts* data.

Updated July 9, 2010

2073

## Difference in Northern and Southern California Daily Spot Prices

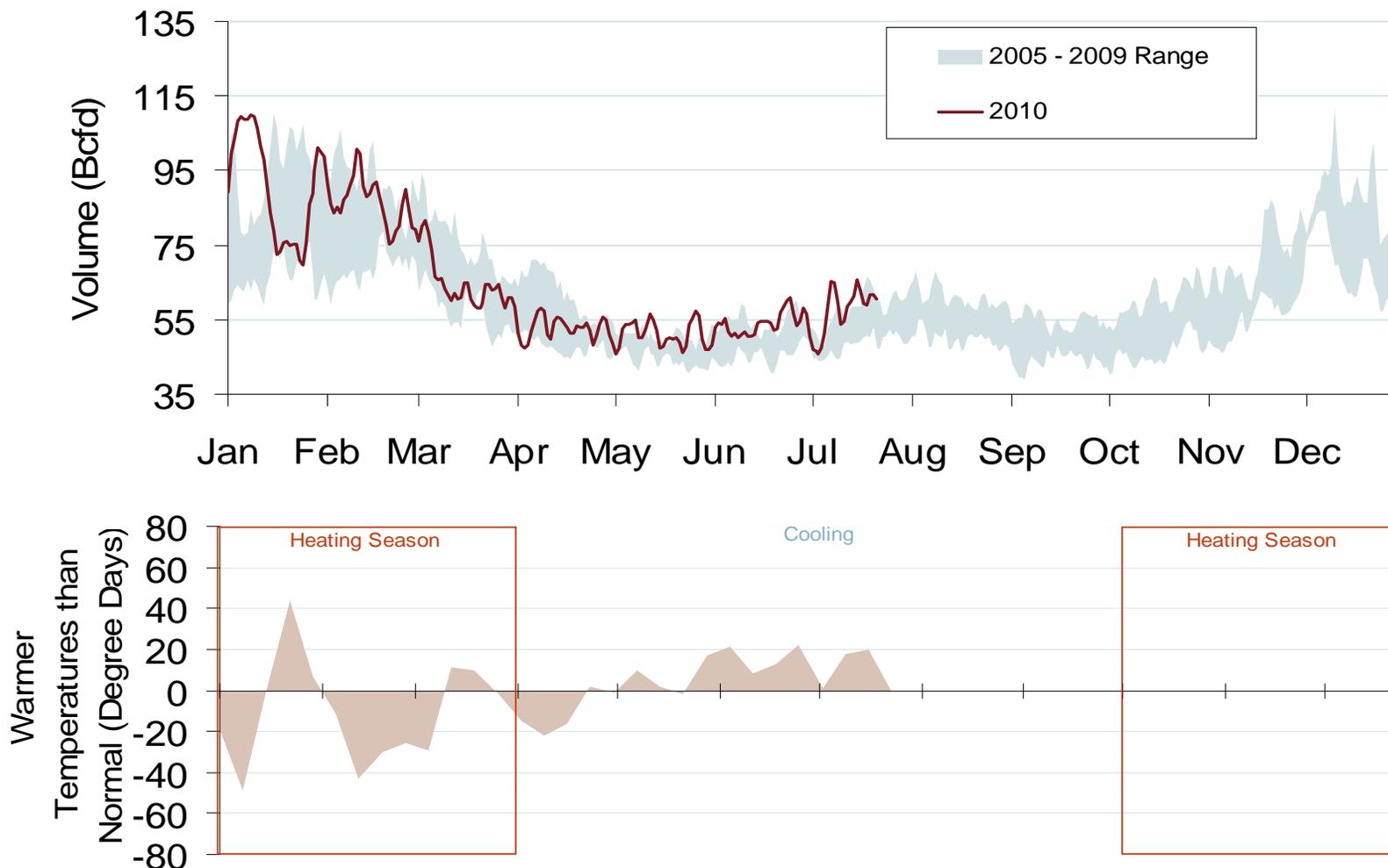


Source: Derived from *Platts* data.

Updated July 9, 2010

23501

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

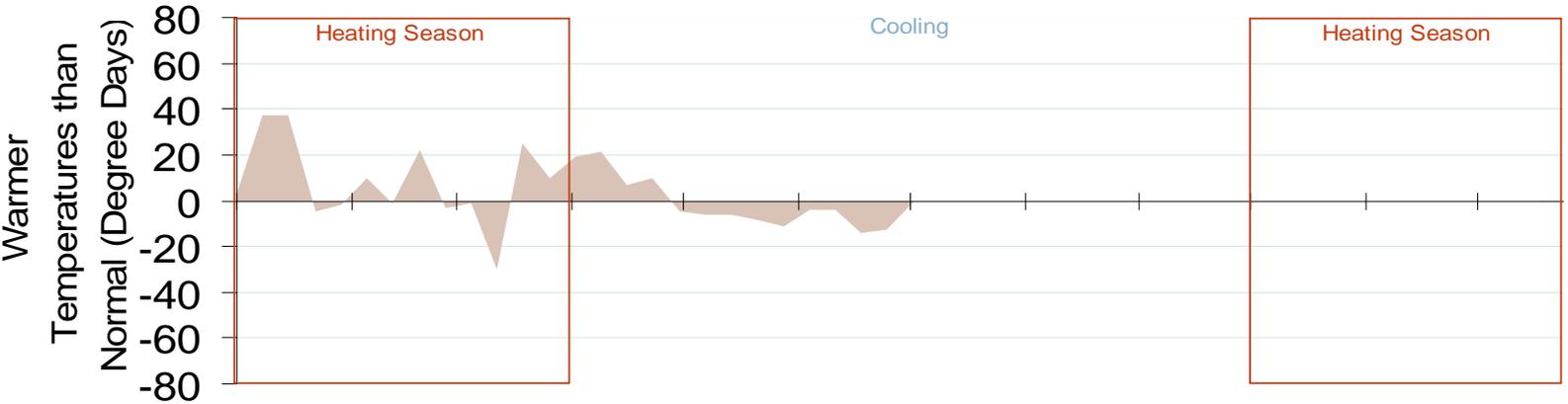
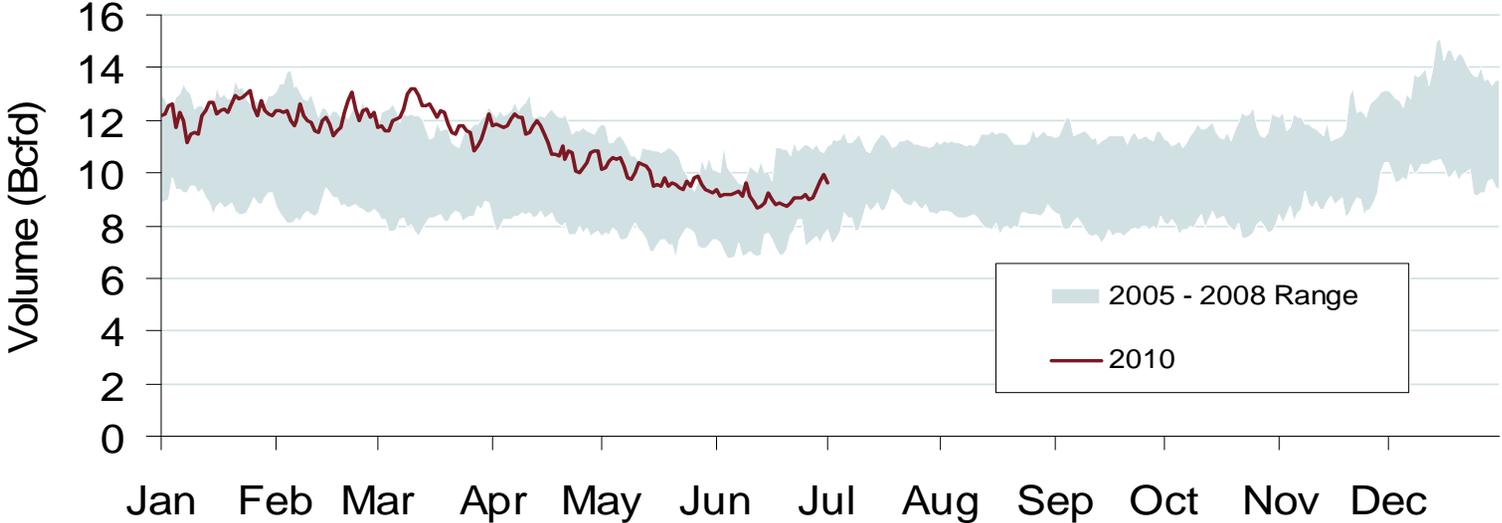


Source: Derived from Bentek Energy and Weekly NOAA data.

Updated July 21, 2010

20009

# Daily Western Natural Gas Demand All Sectors



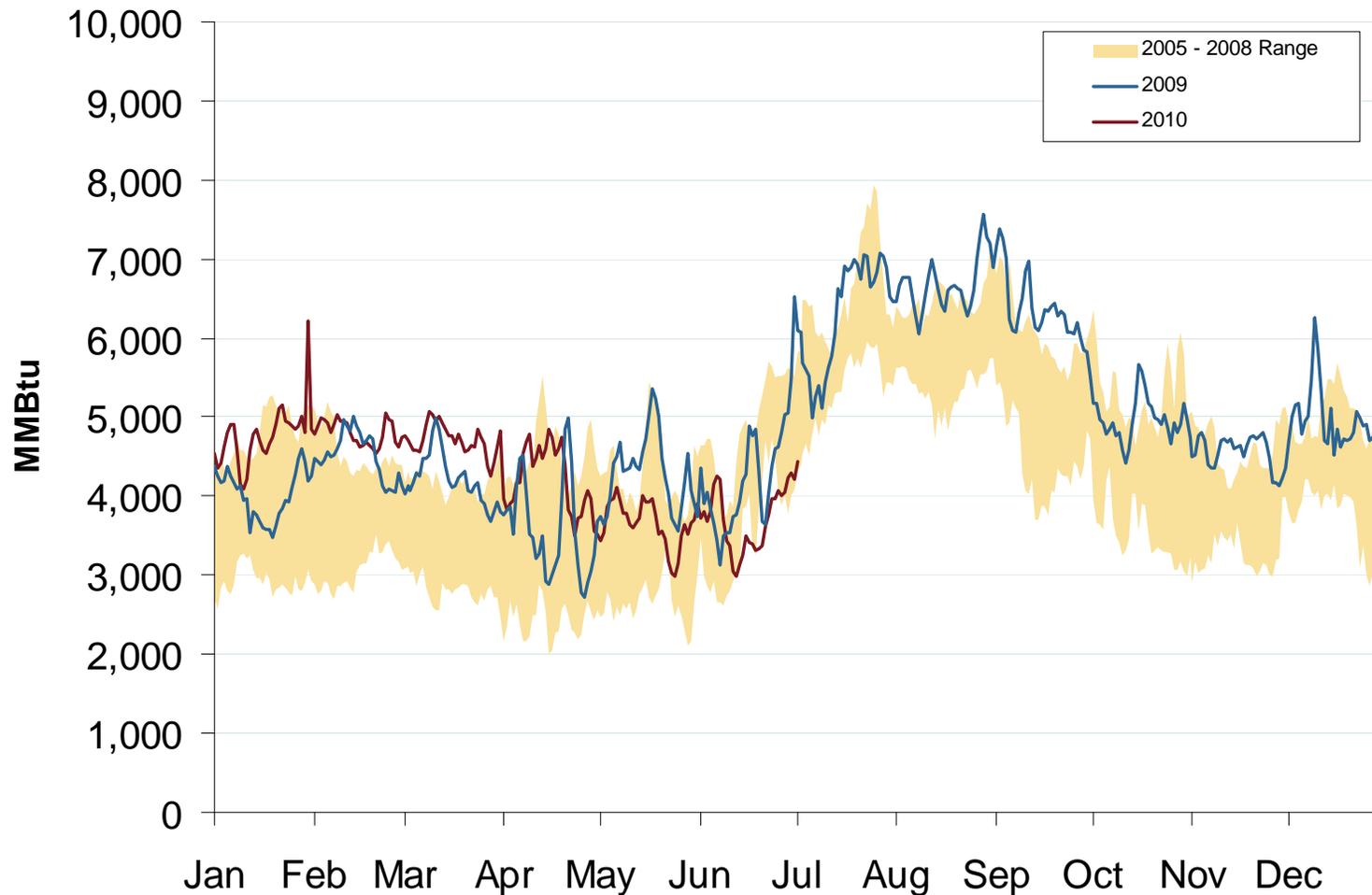
Source: Derived from Bentek Energy and Weekly NOAA data.

Updated July 9, 2010

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

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

# Western Natural Gas Consumption for Power Generation

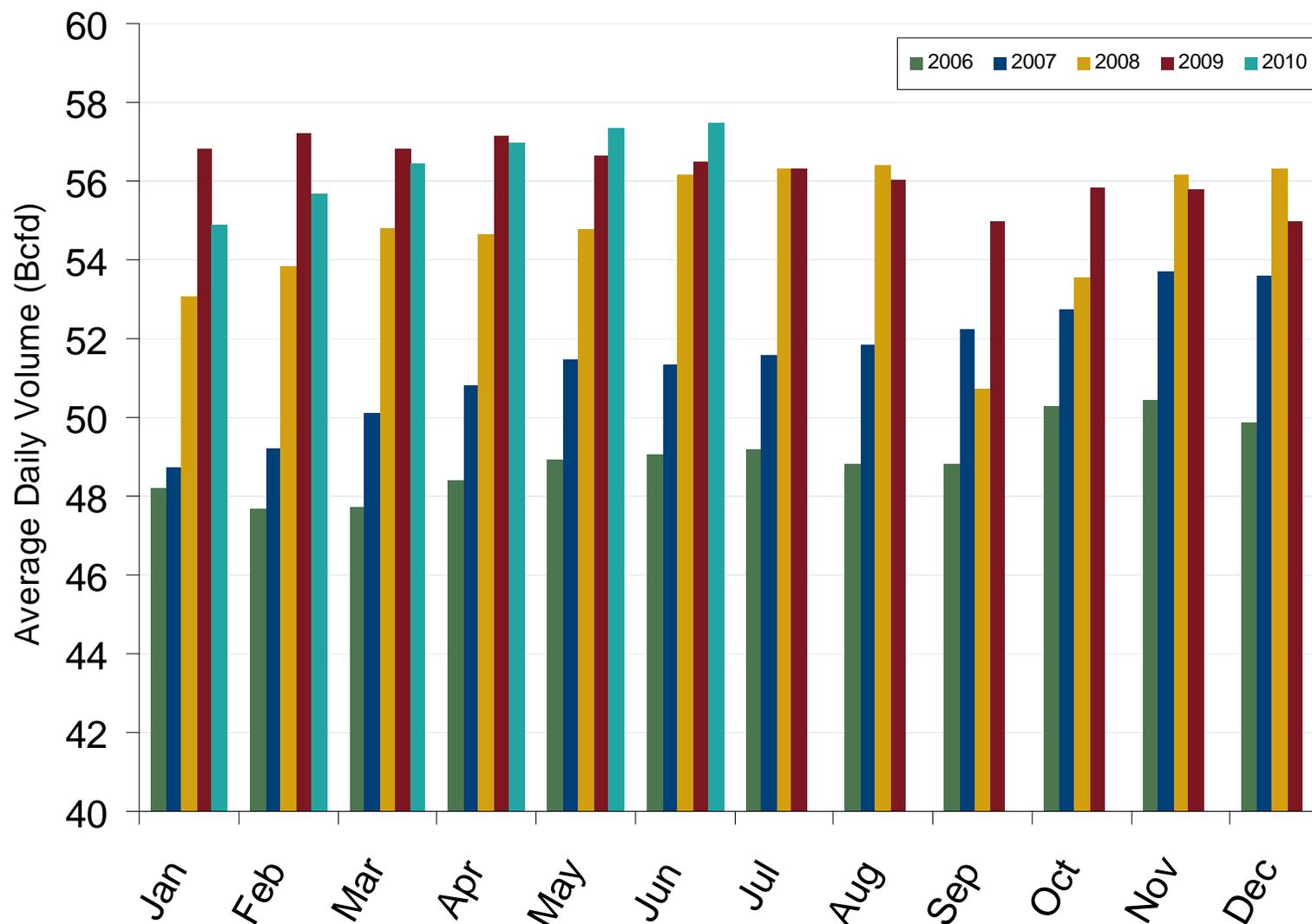


Source: Derived from Bentek Data

Updated July 9, 2010

23504

## Natural Gas Markets: Monthly U.S. Dry Gas Production

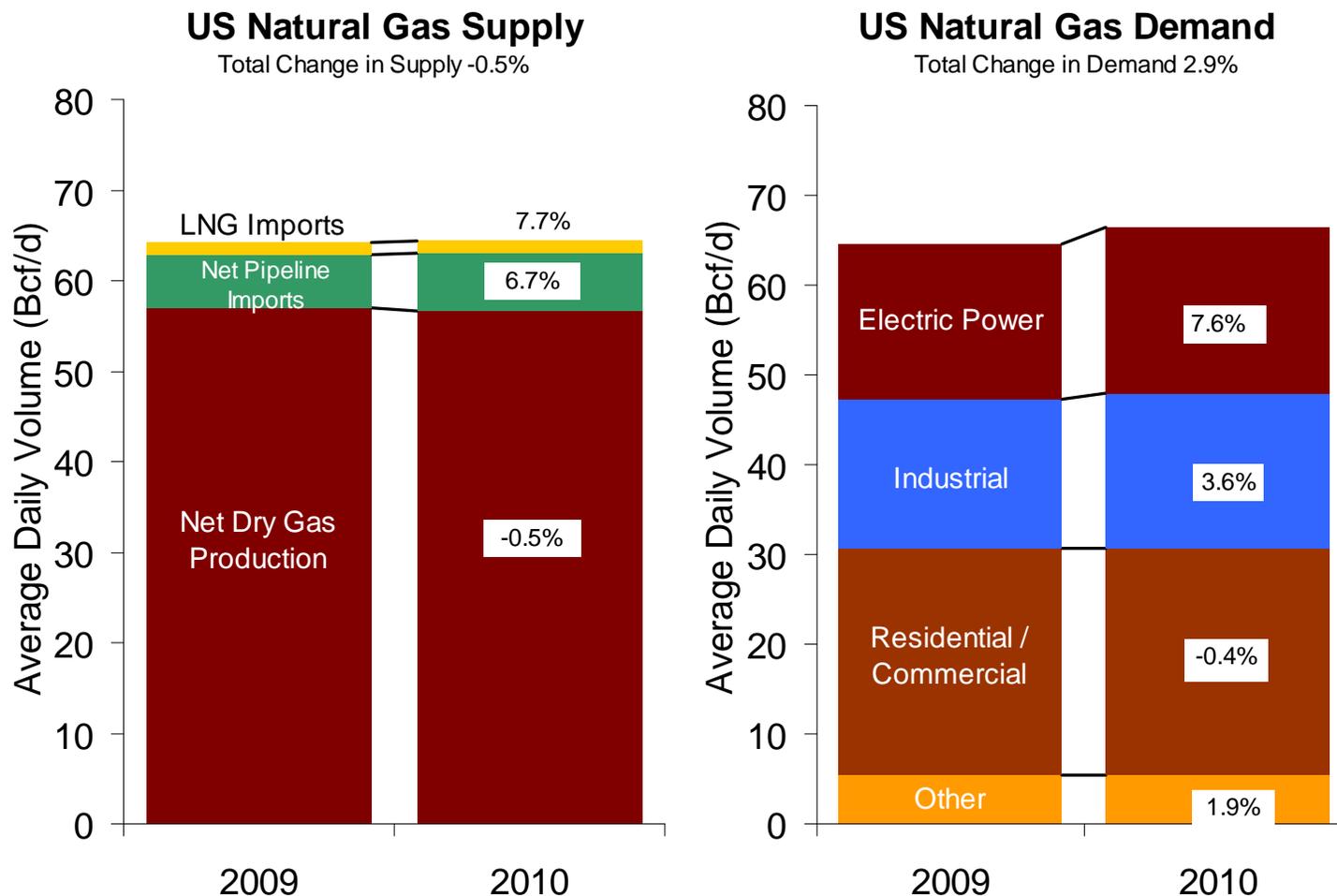
Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)**Monthly U.S. Dry Gas Production – Lower 48 States**Source: Derived from *Bentek* data.

Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek data

Updated July 28, 2010

20021

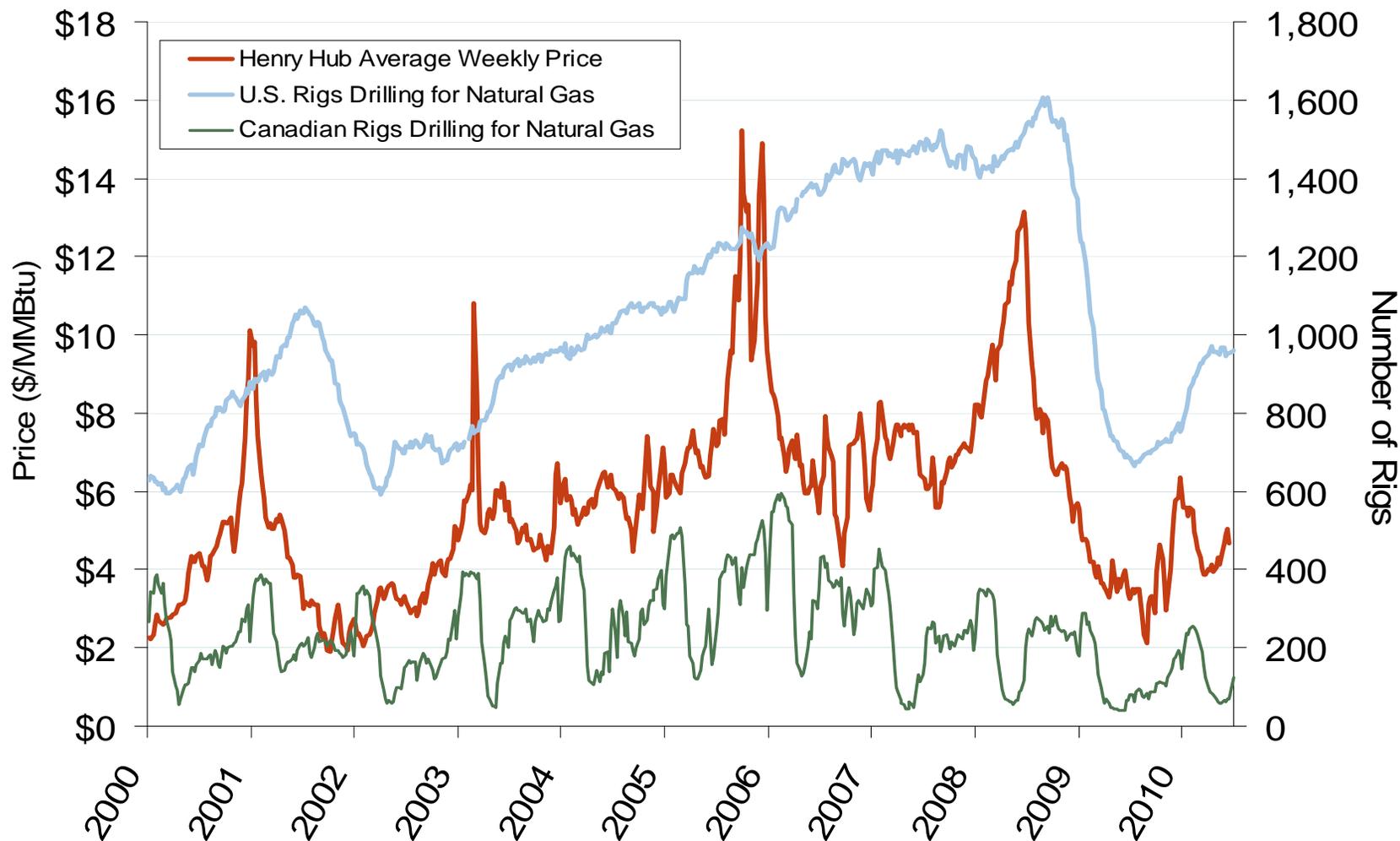
## U.S. Natural Gas Supply and Demand 2009 vs. 2010: January - June



Source: Derived from Bentek data.

Updated July 9, 2010

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

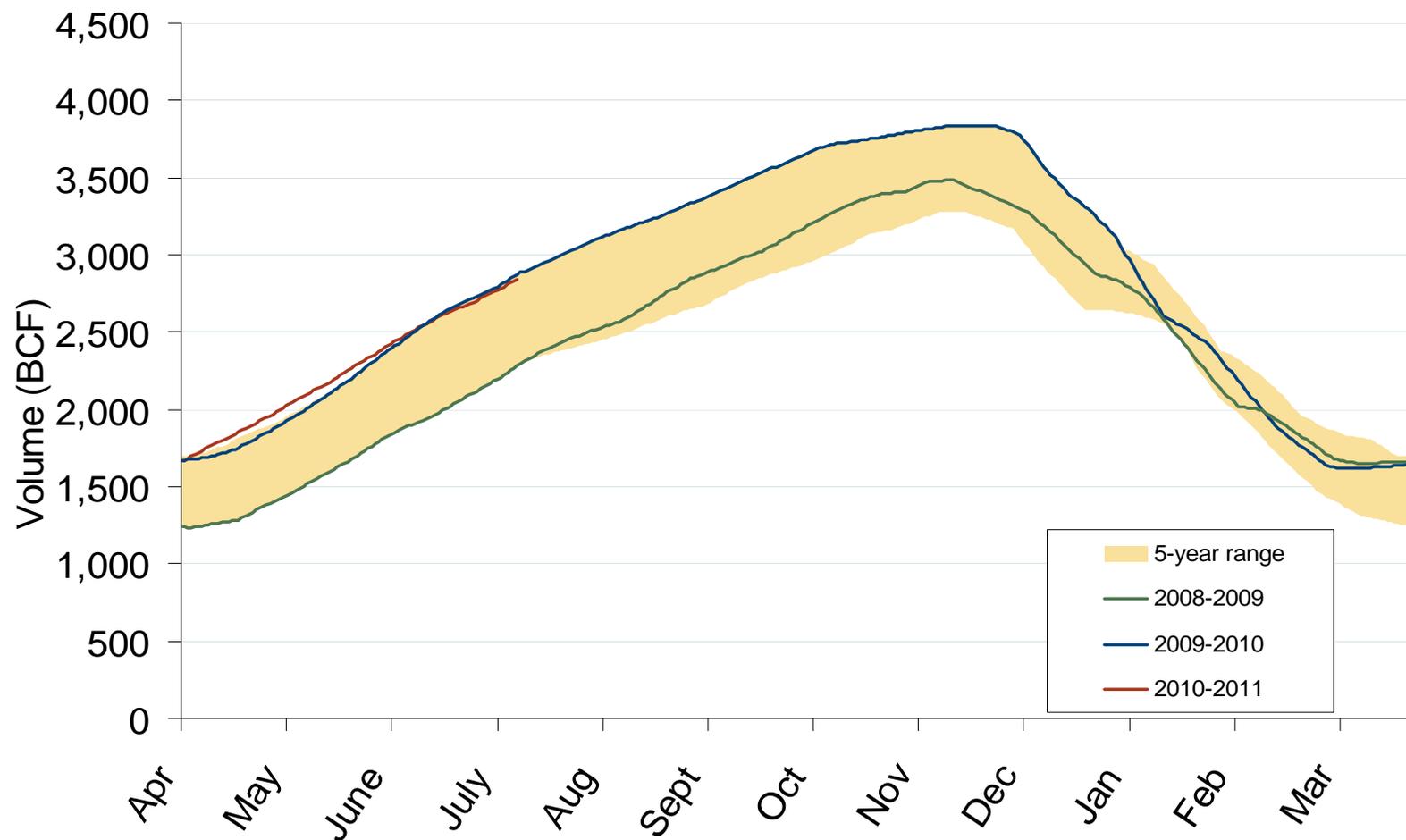


Source: Derived from *Platts* and *Baker Hughes* data.

Updated July 9, 2010

2007

## Total U.S. Working Gas in Storage

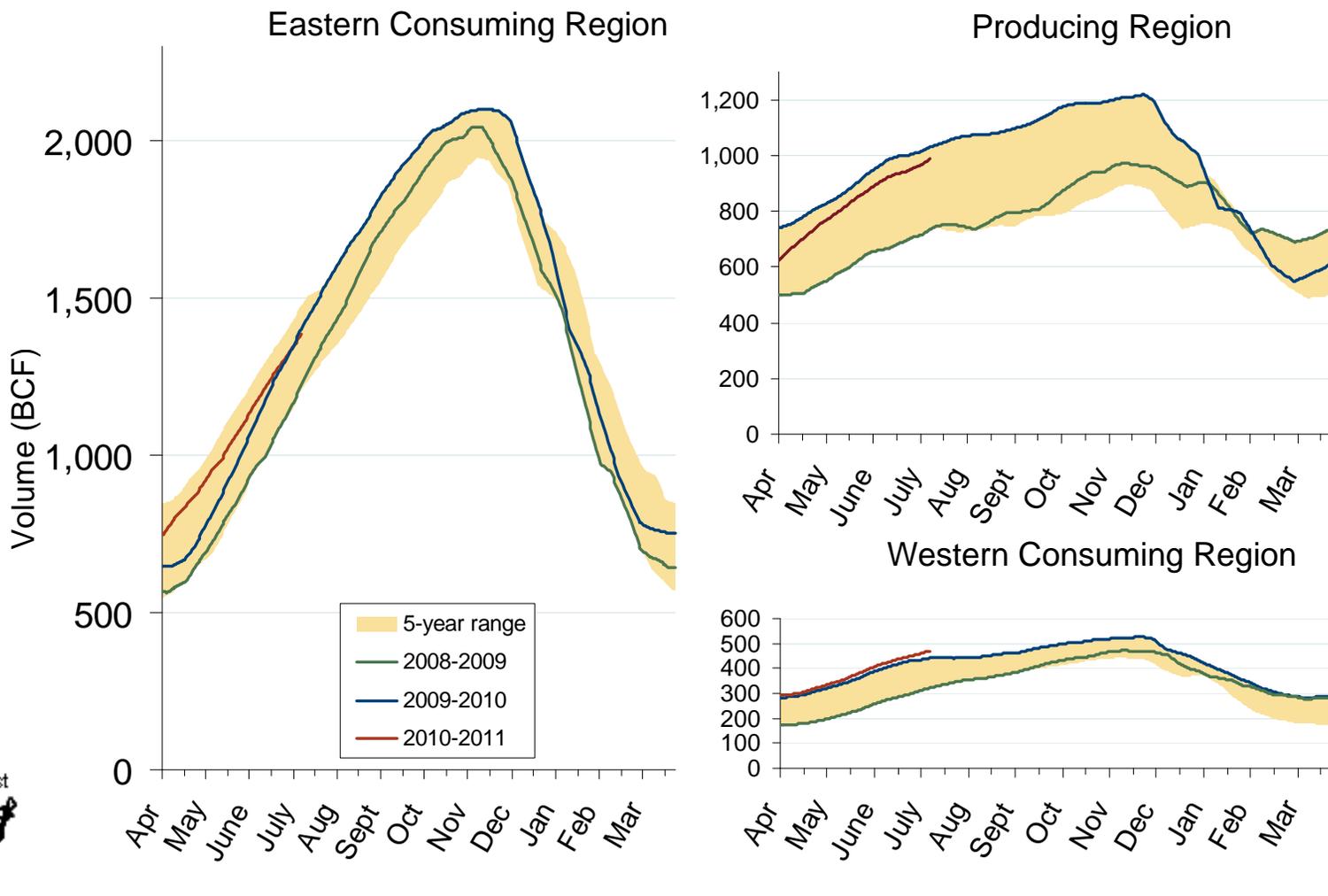


Source: Derived from EIA data.

Updated July 15, 2010

2003

## Regional Totals of Working Gas in Storage

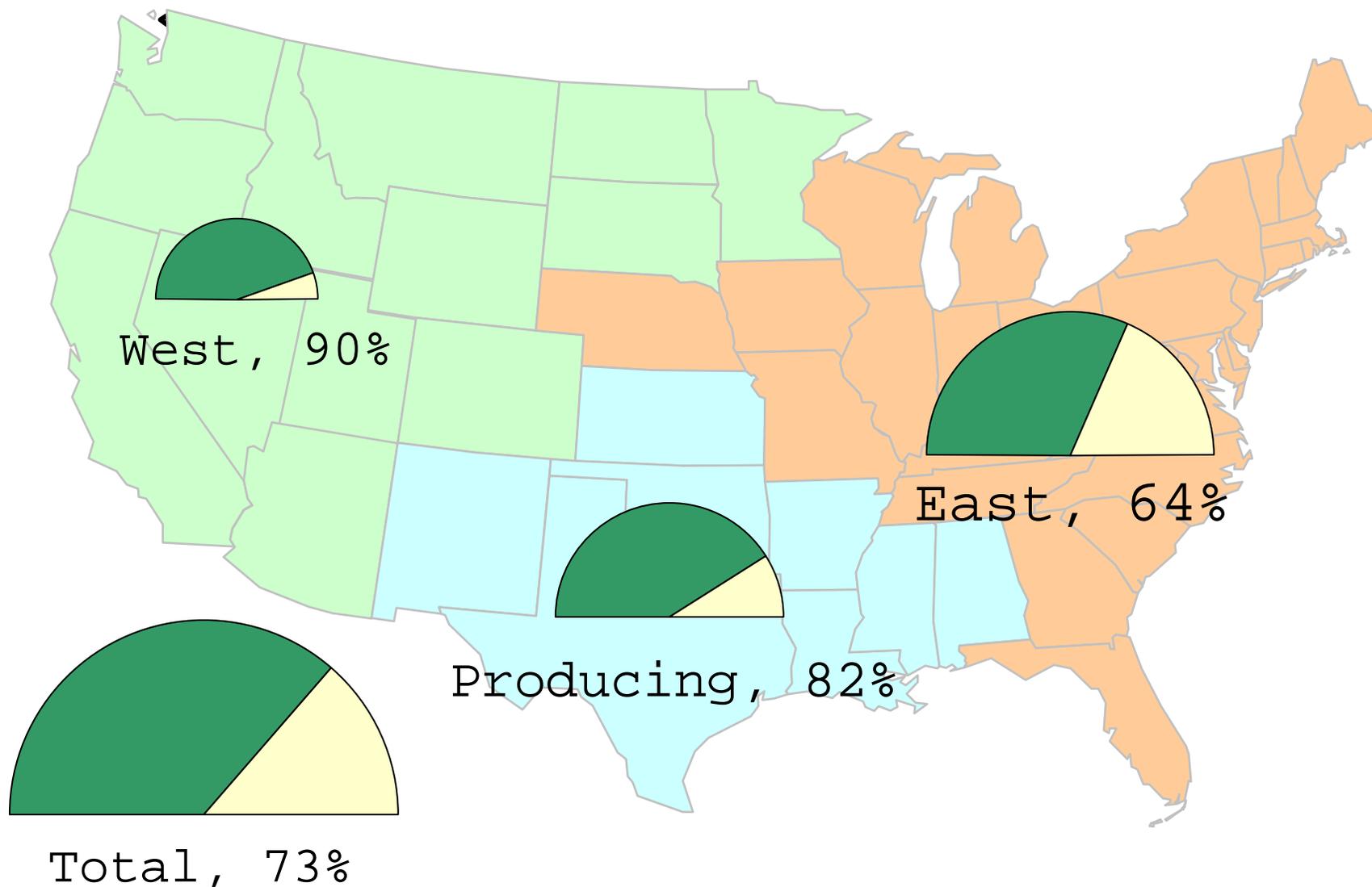


Source: Derived from EIA data.

Updated July 15, 2010

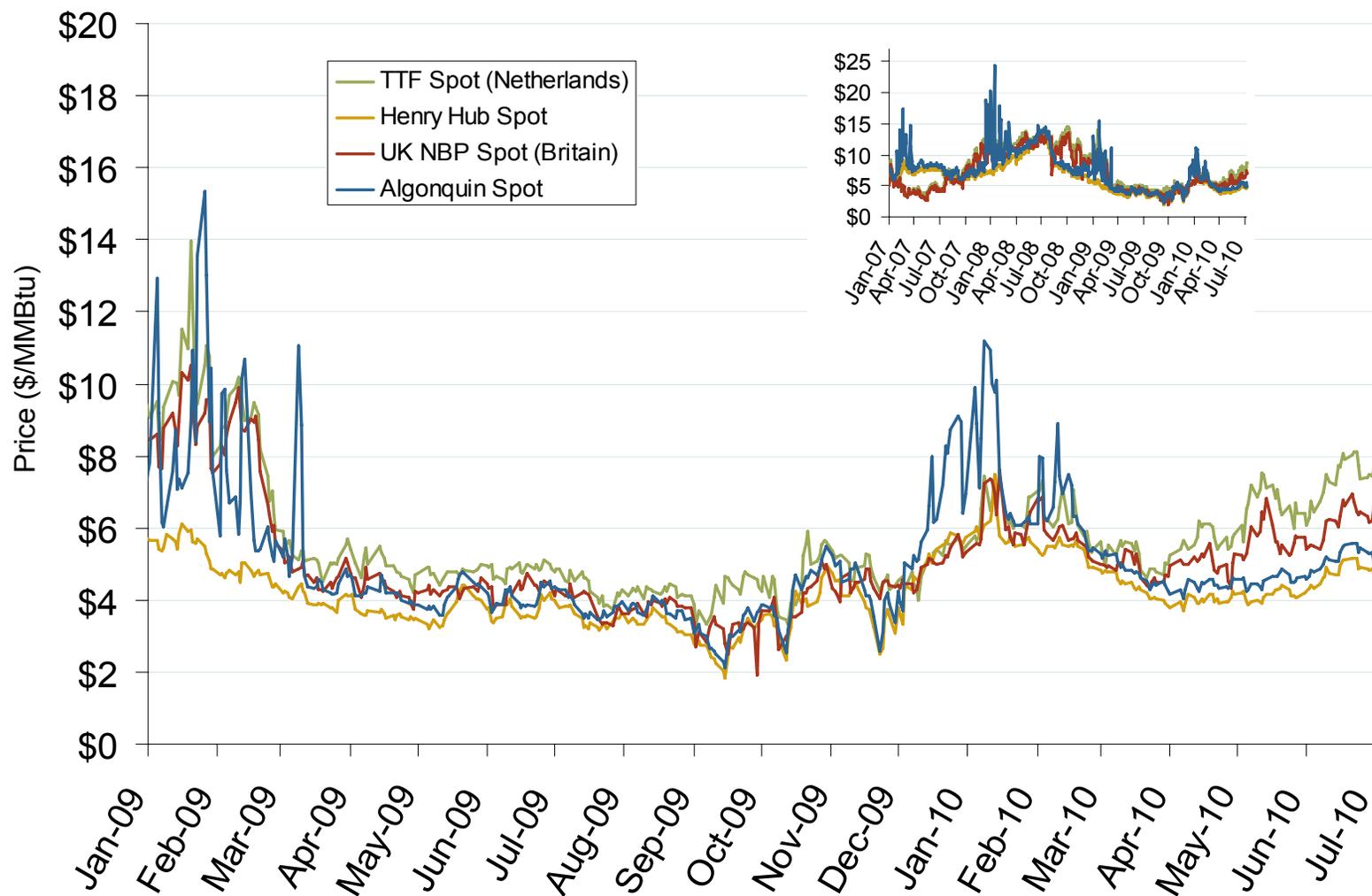
2004

## Natural Gas Storage Inventories – % full on July 9, 2010



Source: Derived from EIA Weekly Storage Report and the 2009 Estimated Peak Underground Working Gas Storage Capacity. Updated July 15, 2010 20022

## Atlantic Basin European and US Spot Natural Gas Prices

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

Updated July 9, 2010

3008

## World LNG Estimated July 2010 Landed Prices

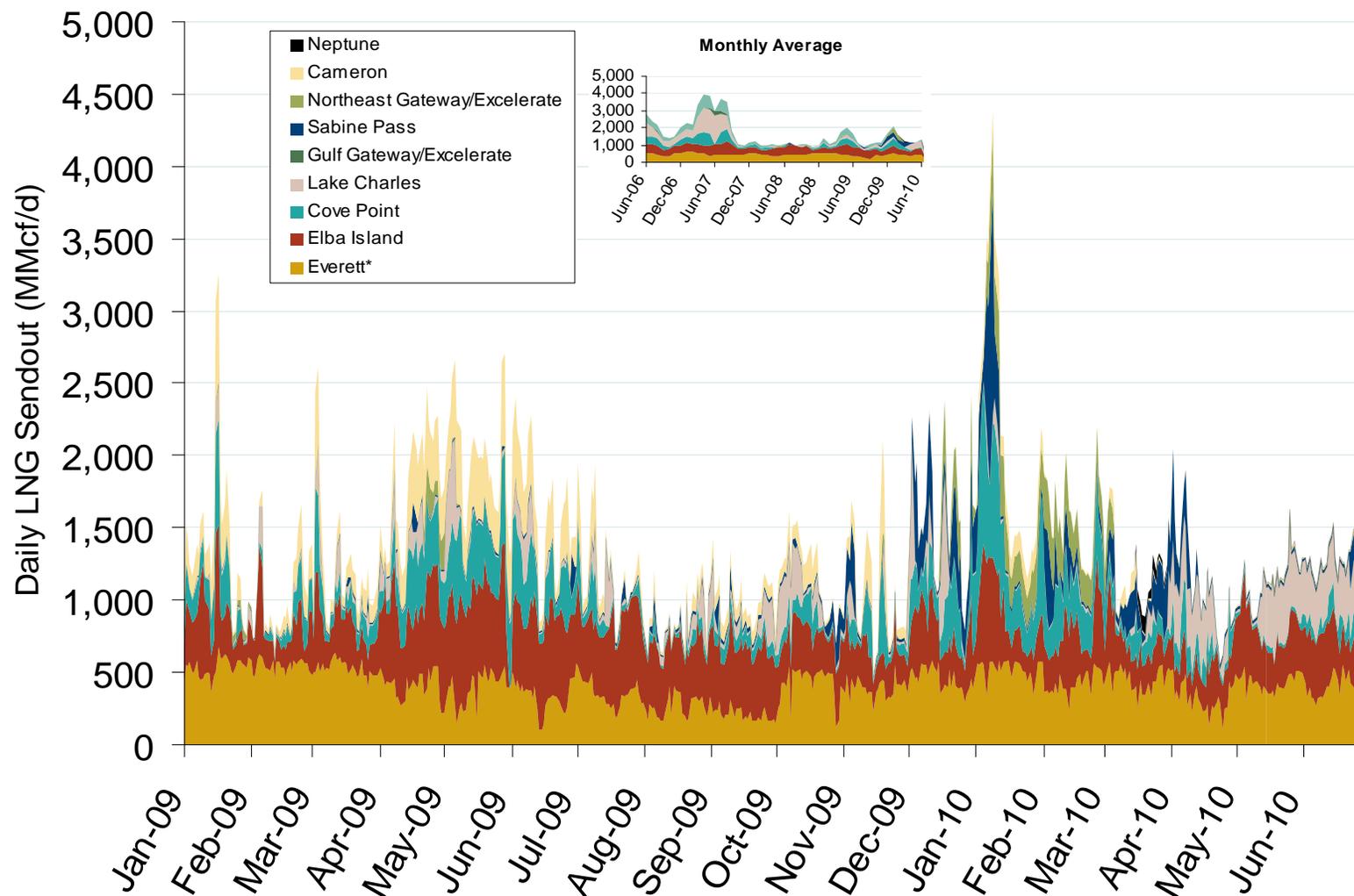


Source: *Waterborne Energy, Inc.* Data in \$US/MMBtu.

Updated July 9, 2010

3024

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



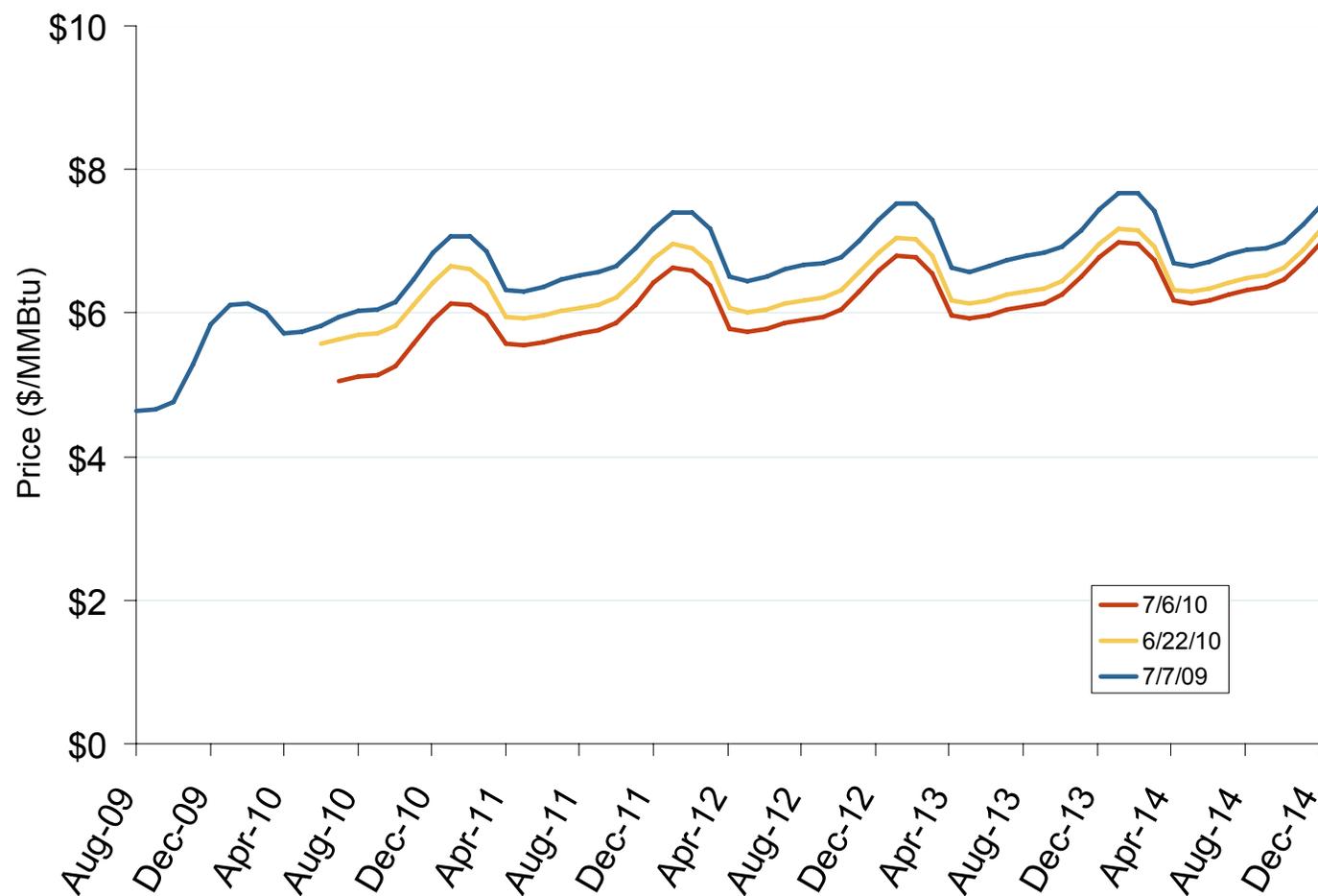
Source: Derived from *Bentek* data.

\* 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 July 9, 2010

3007

## NYMEX Natural Gas Forward Price Curve



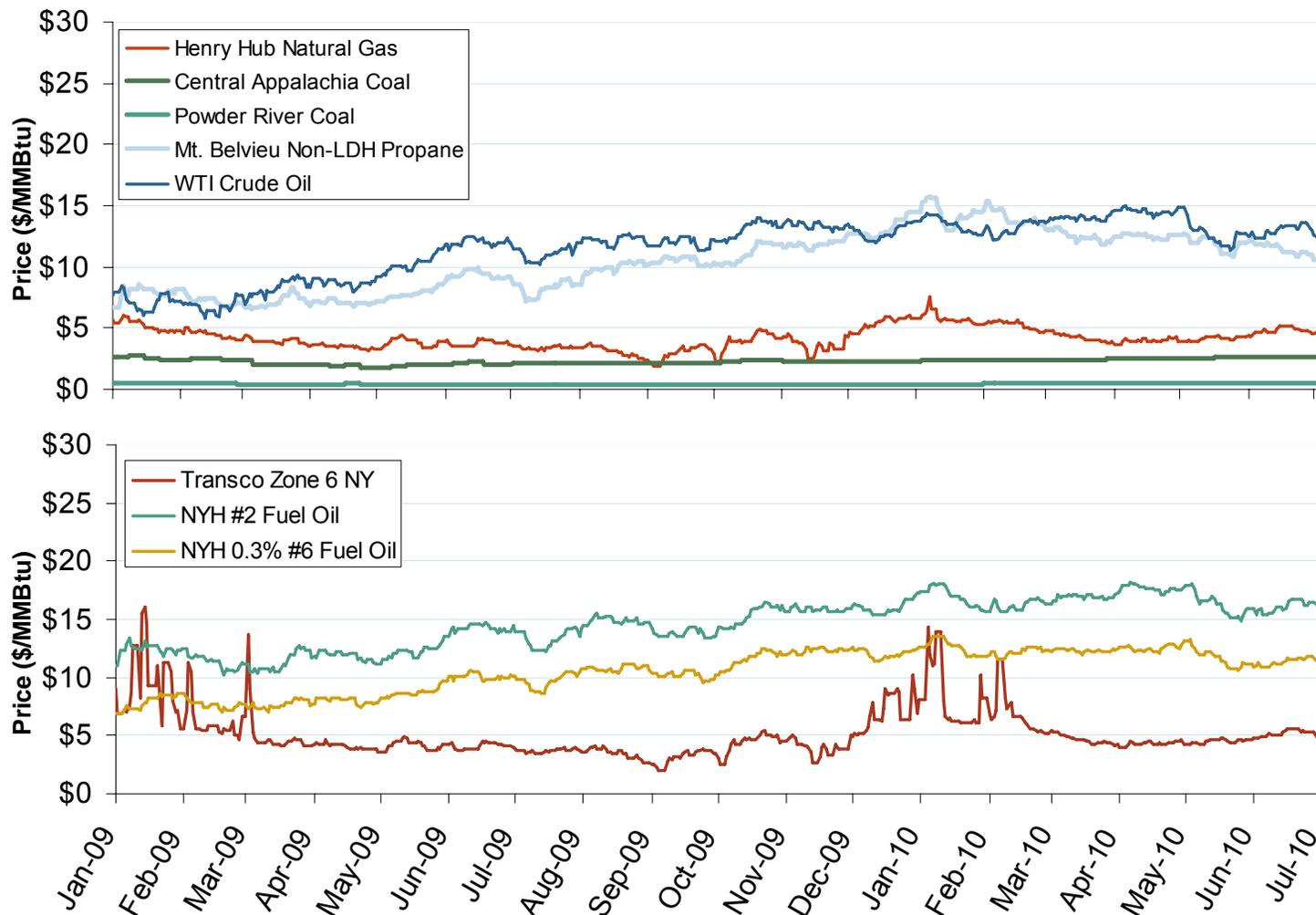
The NYMEX futures contract trades in 10,000 million Btu units. The blue series shows the forward price curve for these contracts 1-year ago. The red and yellow curves show prices for contracts traded on the current and previous months.

Source: Derived from NYMEX data.

Updated July 9, 2010

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.

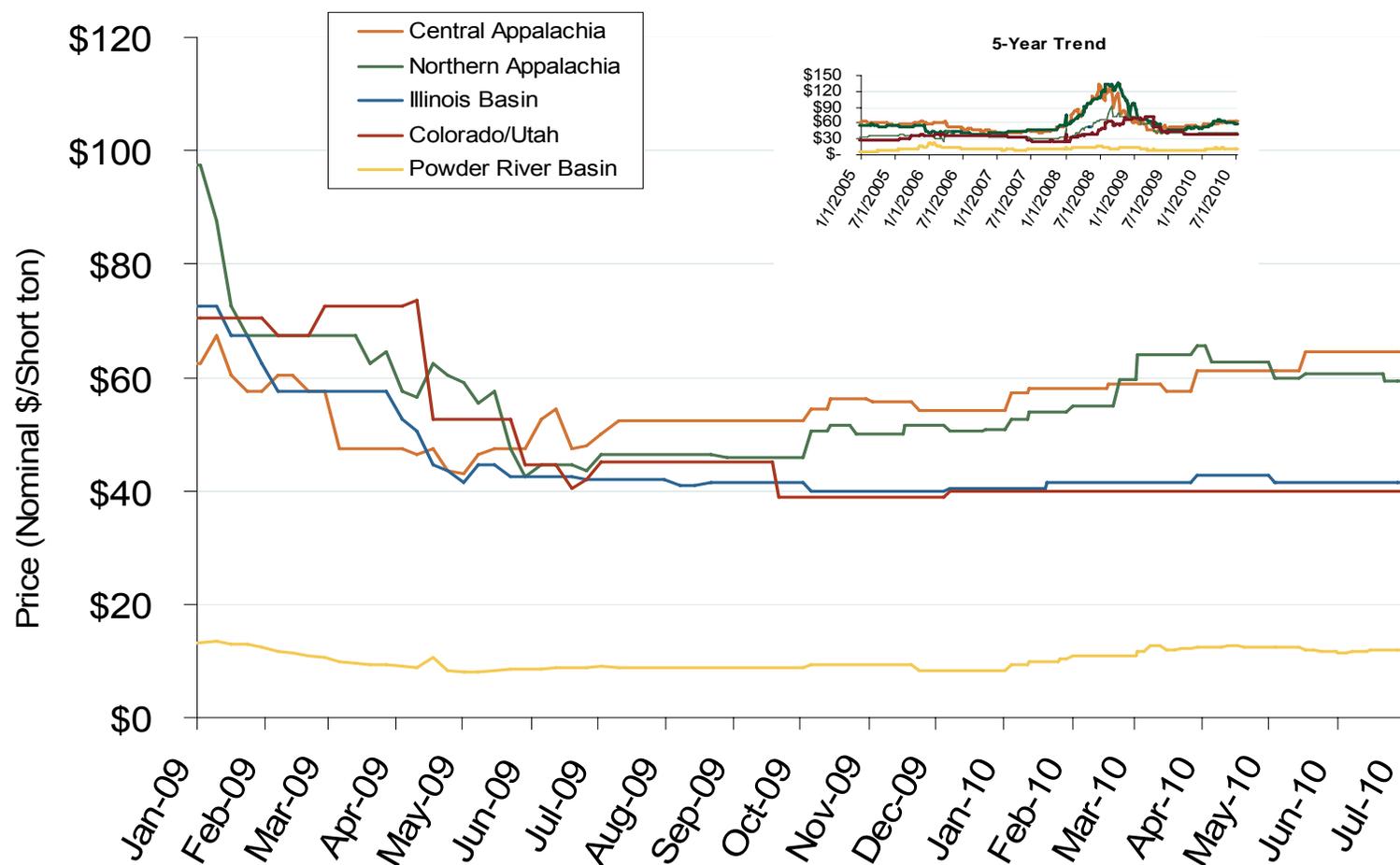
Updated July 9, 2010

3001

## Coal Market: Coal Prices

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

## Regional Coal Spot Prices



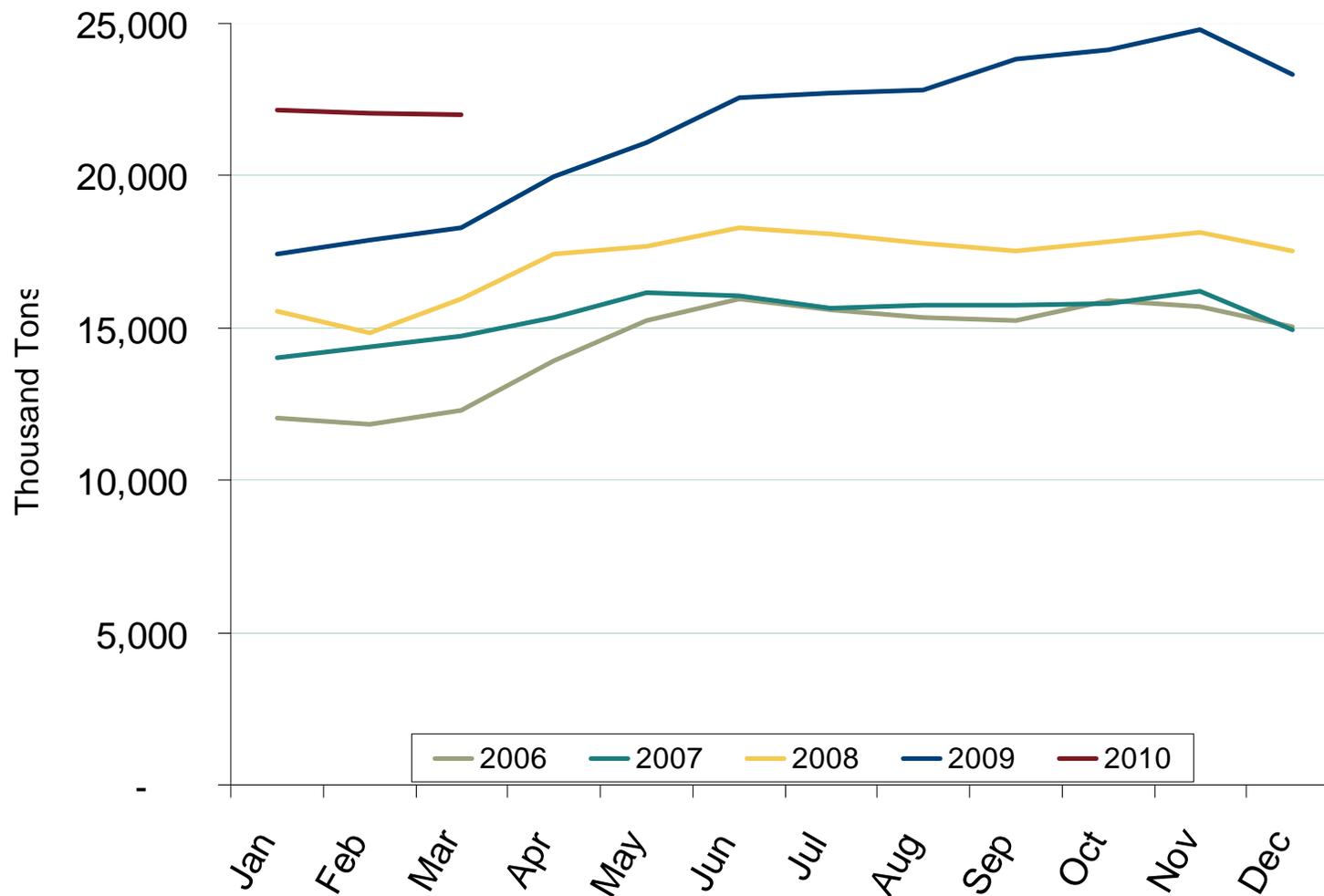
Note: the Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

Updated July 9, 2010

3002

## Western Coal Stockpiles at Electric Power Generating Facilities



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

Updated July 9, 2010

31004