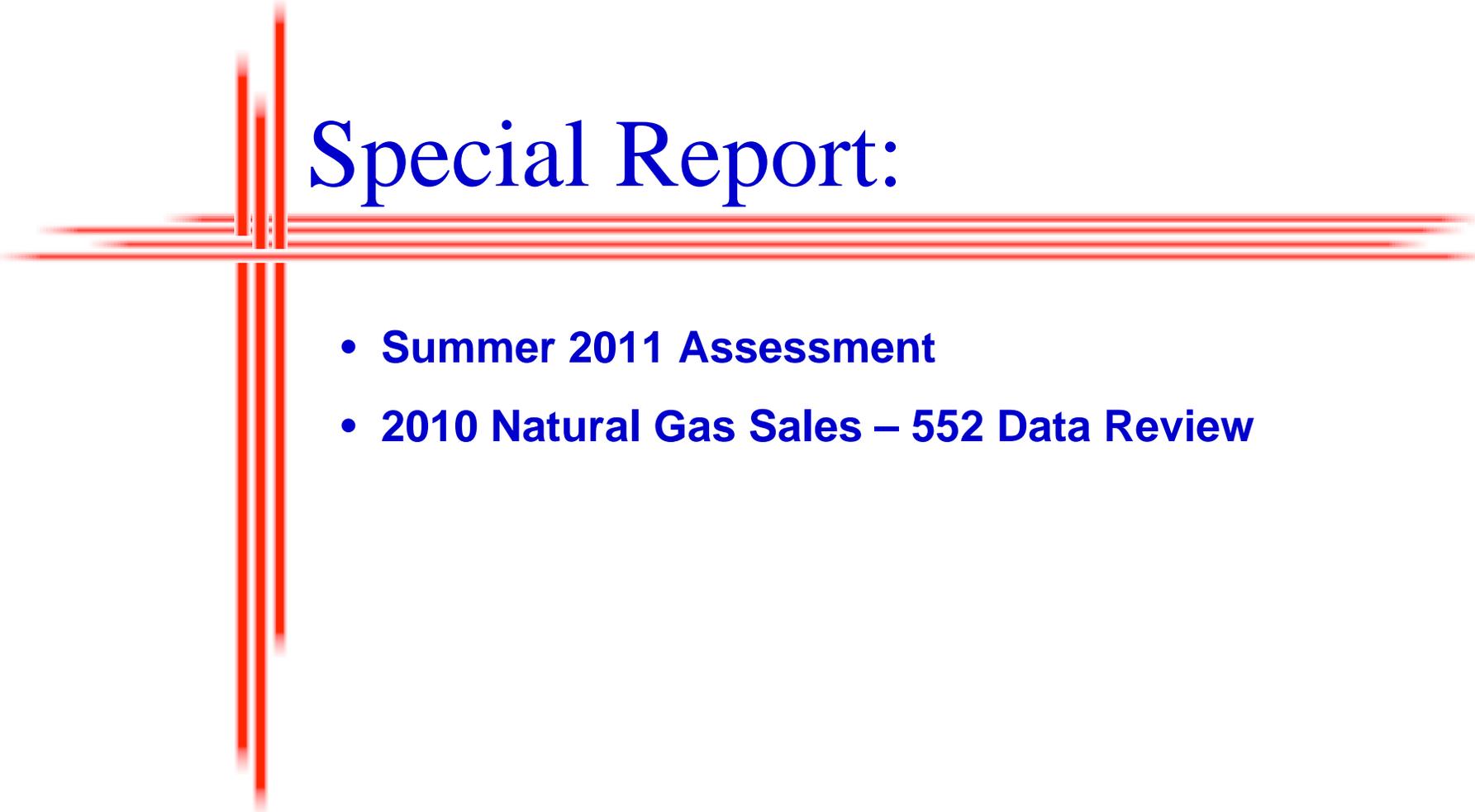


OE ENERGY MARKET SNAPSHOT

Western States Version – May 2011 Data

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

Office of Enforcement
Federal Energy Regulatory Commission
June 2011



Special Report:

- **Summer 2011 Assessment**
- **2010 Natural Gas Sales – 552 Data Review**



FEDERAL ENERGY REGULATORY COMMISSION

Summer 2011 Energy Market and Reliability Assessment

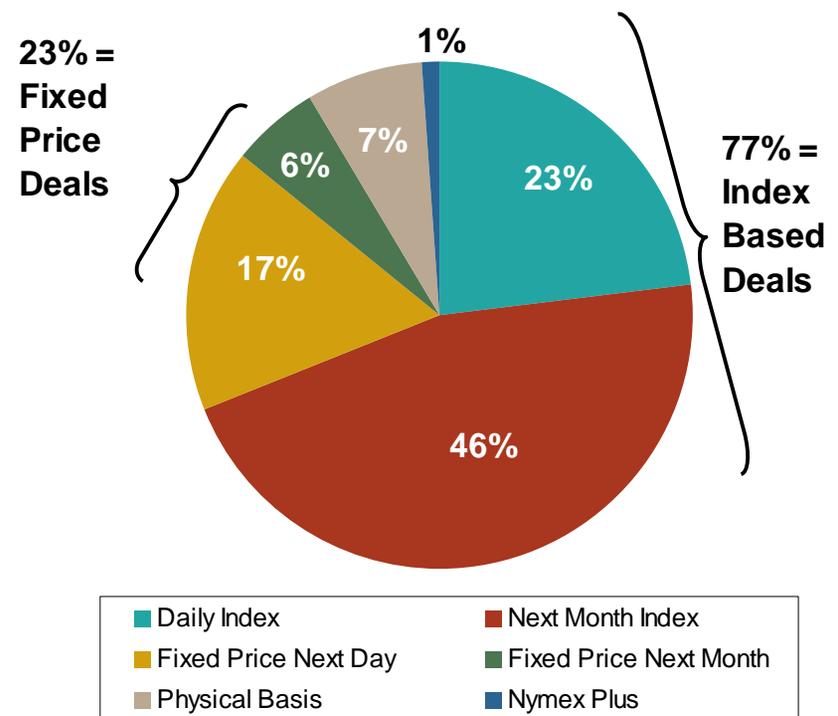
Item No: A-3
May 19, 2011

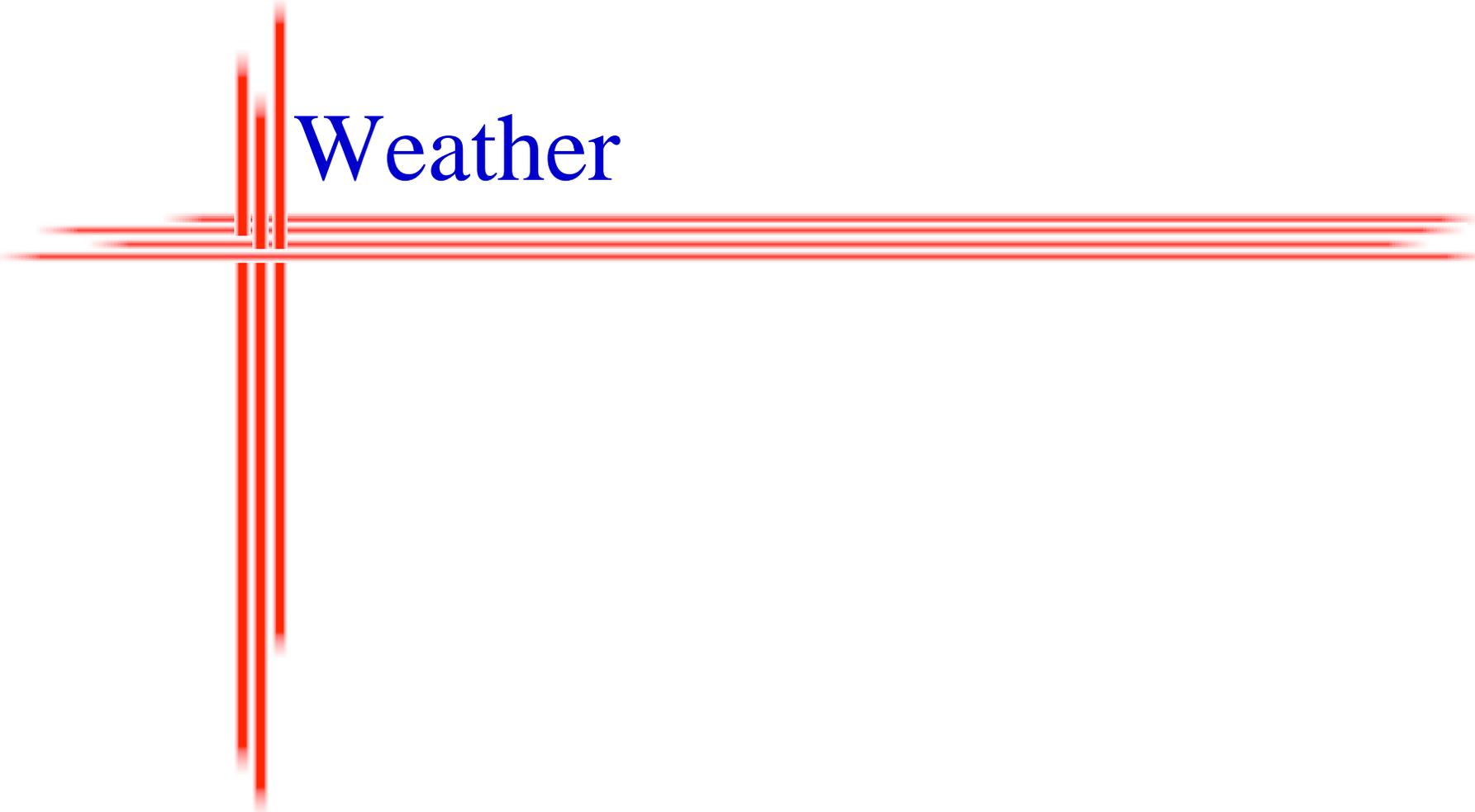
<http://www.ferc.gov/market-oversight/mkt-views/2011/05-19-11.pdf>

FERC Form No. 552 Report – 2010 Data

- 2010 Natural Gas Sales Increased 8% from 2009, to over 61 Tcf, or approximately 2.7 times the 22.5 Tcf of U.S. marketed production in 2010.
- The top 10 sellers represented 38% of the total sales. The top 5:
 - BP (4.7 Tcf)
 - Shell (3.3 Tcf)
 - ConocoPhillips (3.3 Tcf)
 - Macquarie (2.86 Tcf)
 - Chevron (1.76 Tcf)
- Transactions that used published monthly indexes accounted for nearly half of the total reported sales volumes.
- 165 respondents reported their transactions to index publishers.

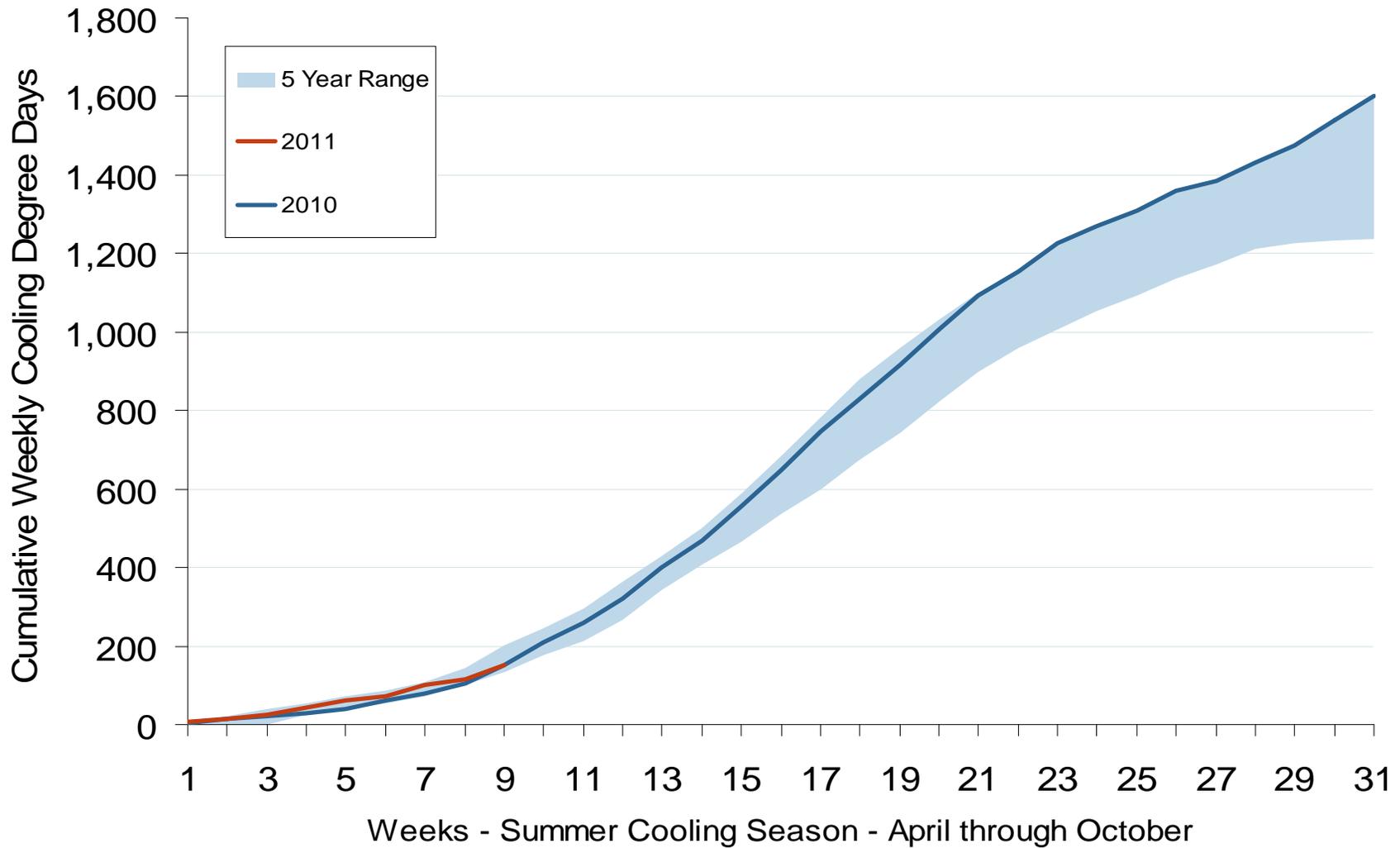
Breakdown of Form No. 552 Reportable Sale Volumes for Calendar Year 2010





Weather

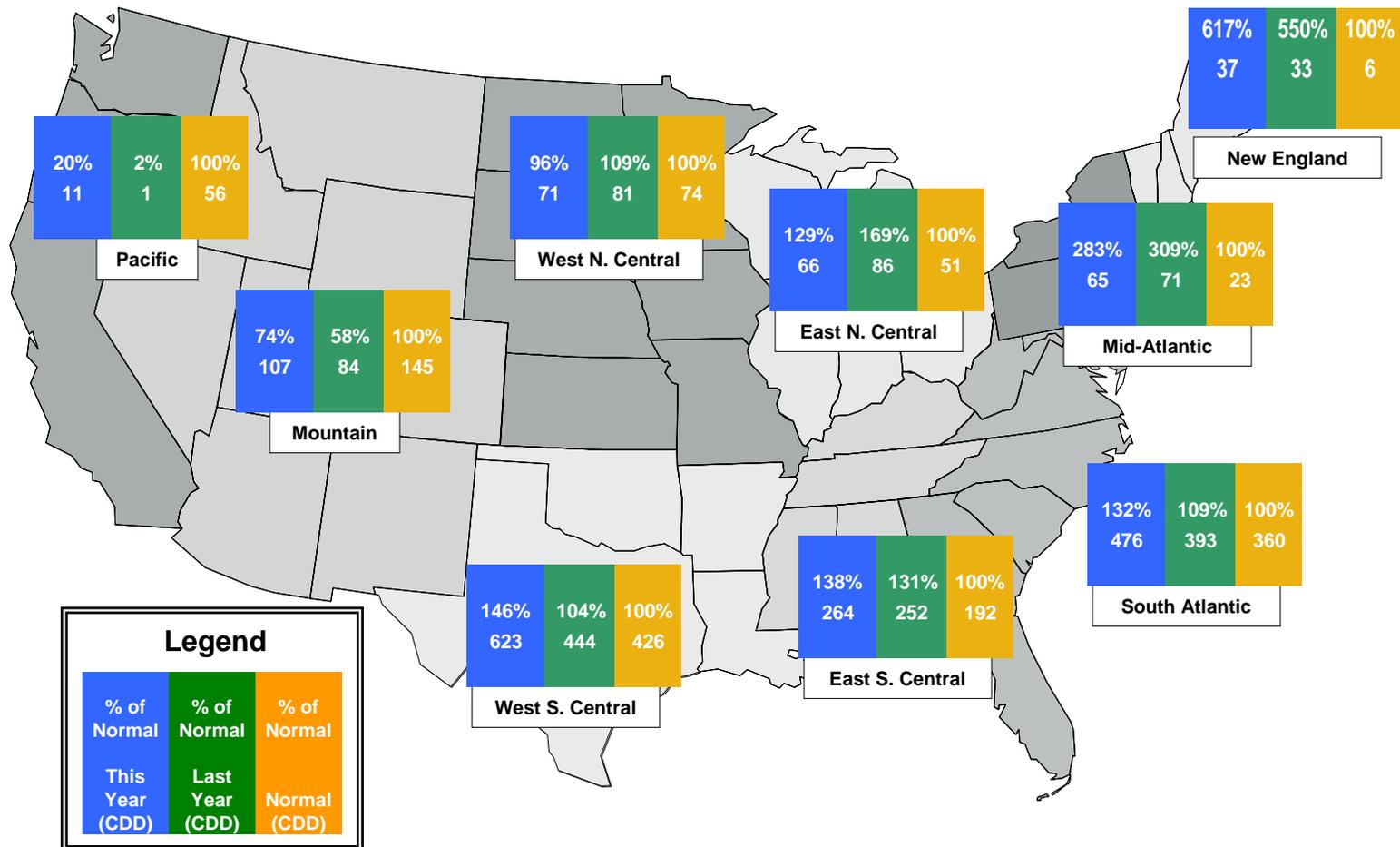
U. S. Summer Cumulative Cooling Degree Days - 2011



Source: Derived from NOAA data.

Updated June 3, 2011

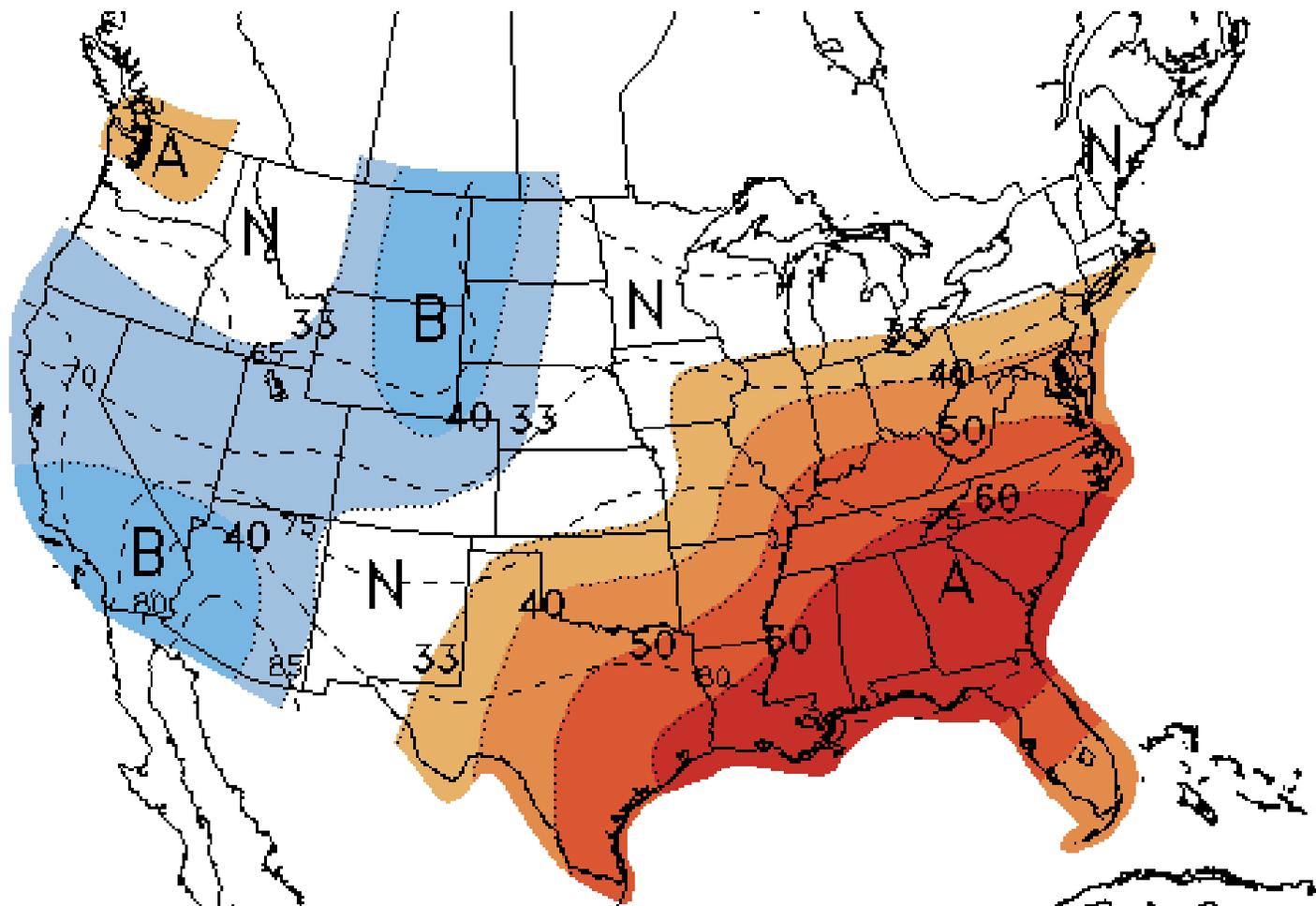
Regional Cooling Degree Days January Through May 2011



Source: Derived from NOAA data. Normal is based on a 30-year average of cooling degree day data.
June 2011 Western Snapshot Report

Updated June 3, 2011

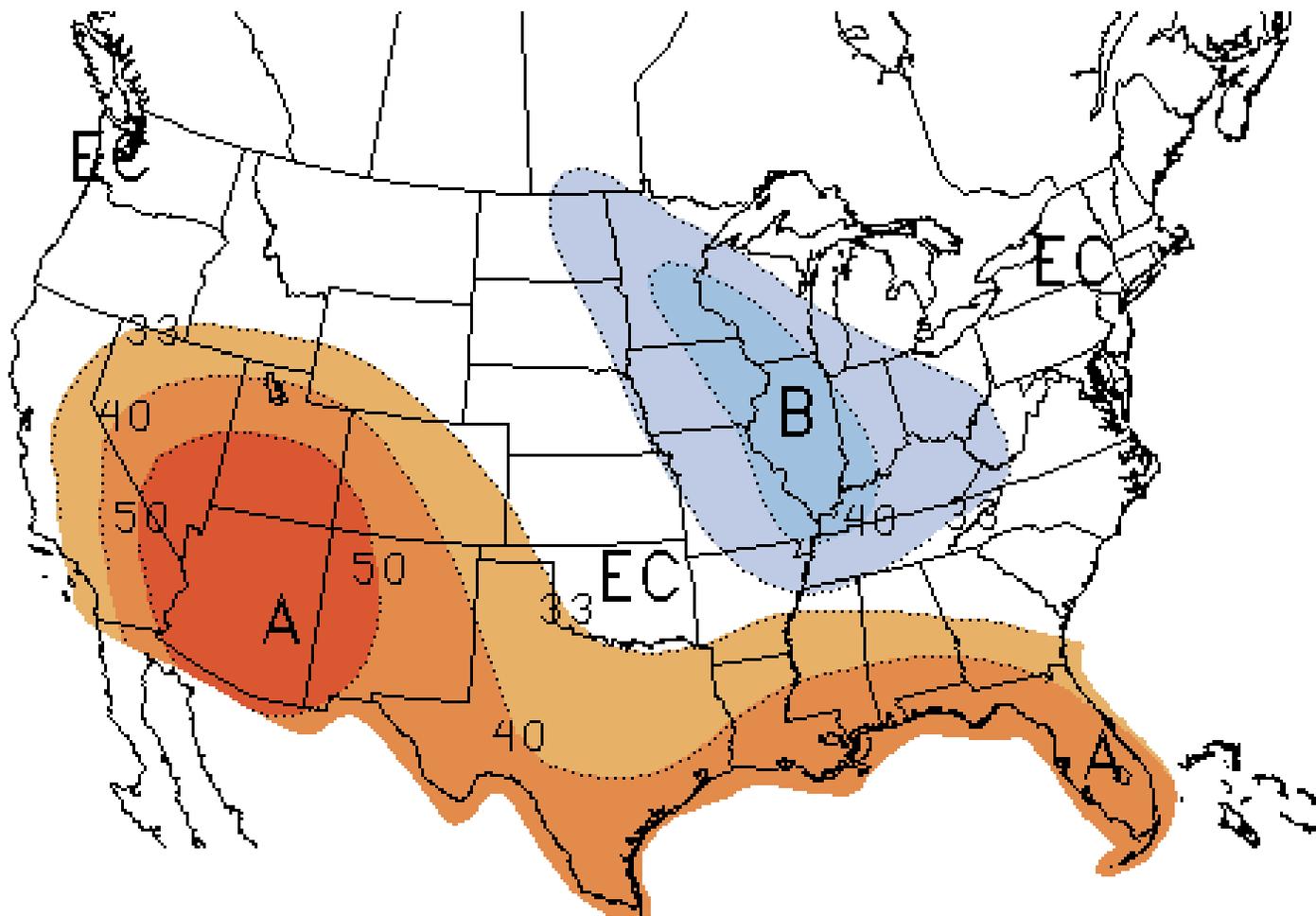
NOAA's 8 to 14 Day Temperature Forecast Made June 6, 2011, Valid for June 2011



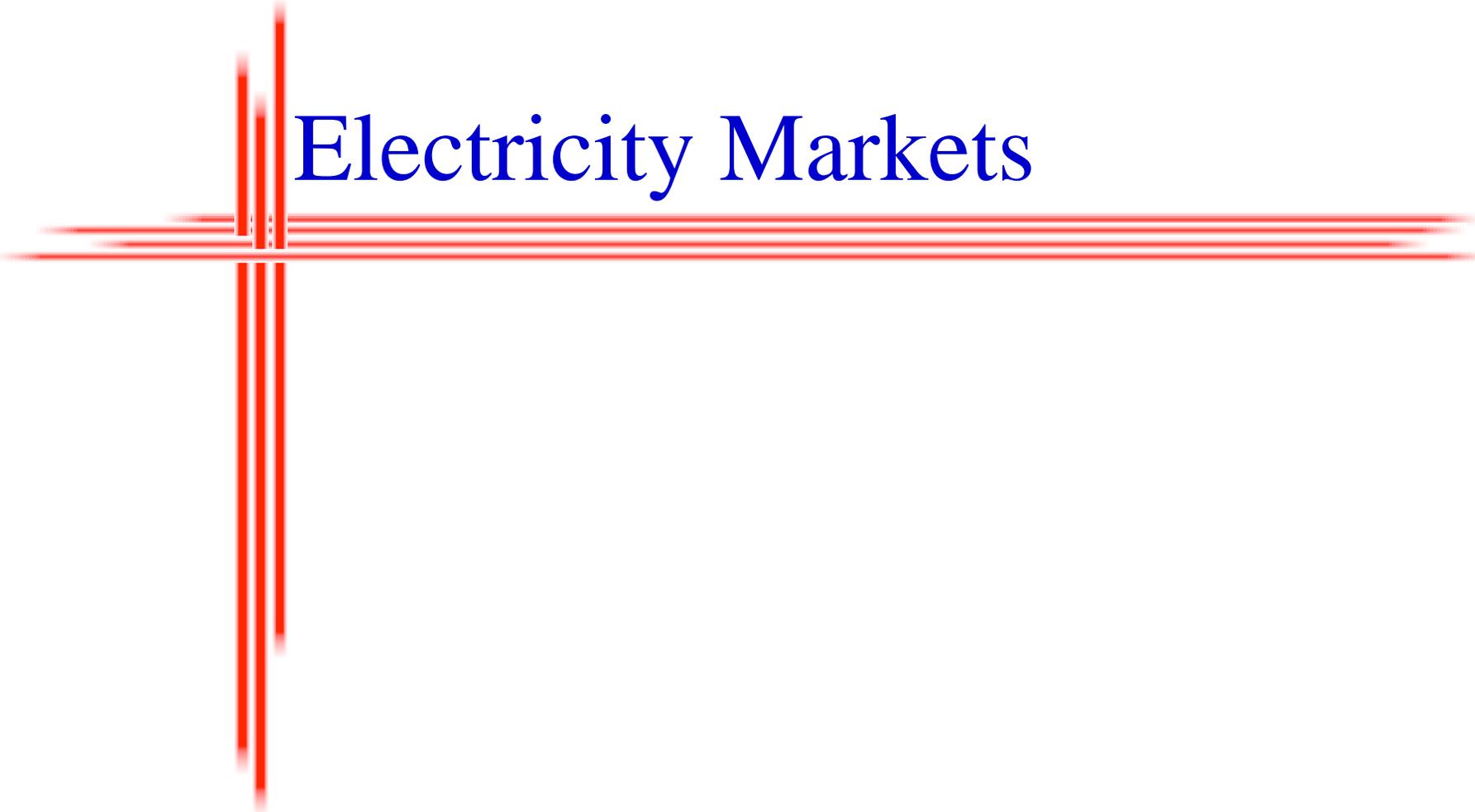
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: Derived from NOAA data.

NOAA's 3 Month Temperature Forecast Made June 6, 2011, Valid for June - August 2011

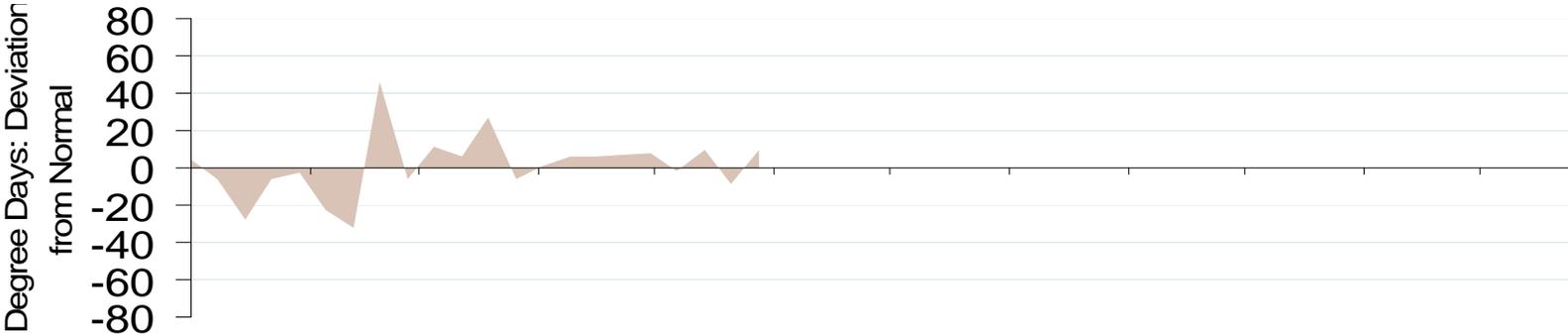
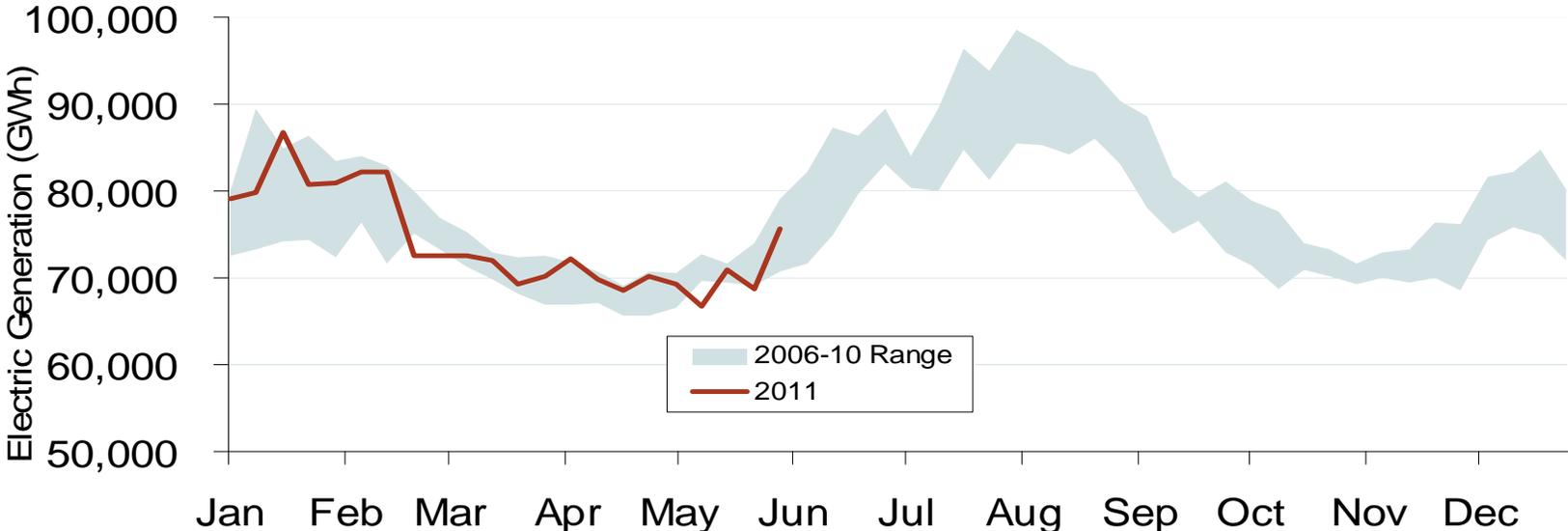


Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.
Source: Derived from NOAA data.



Electricity Markets

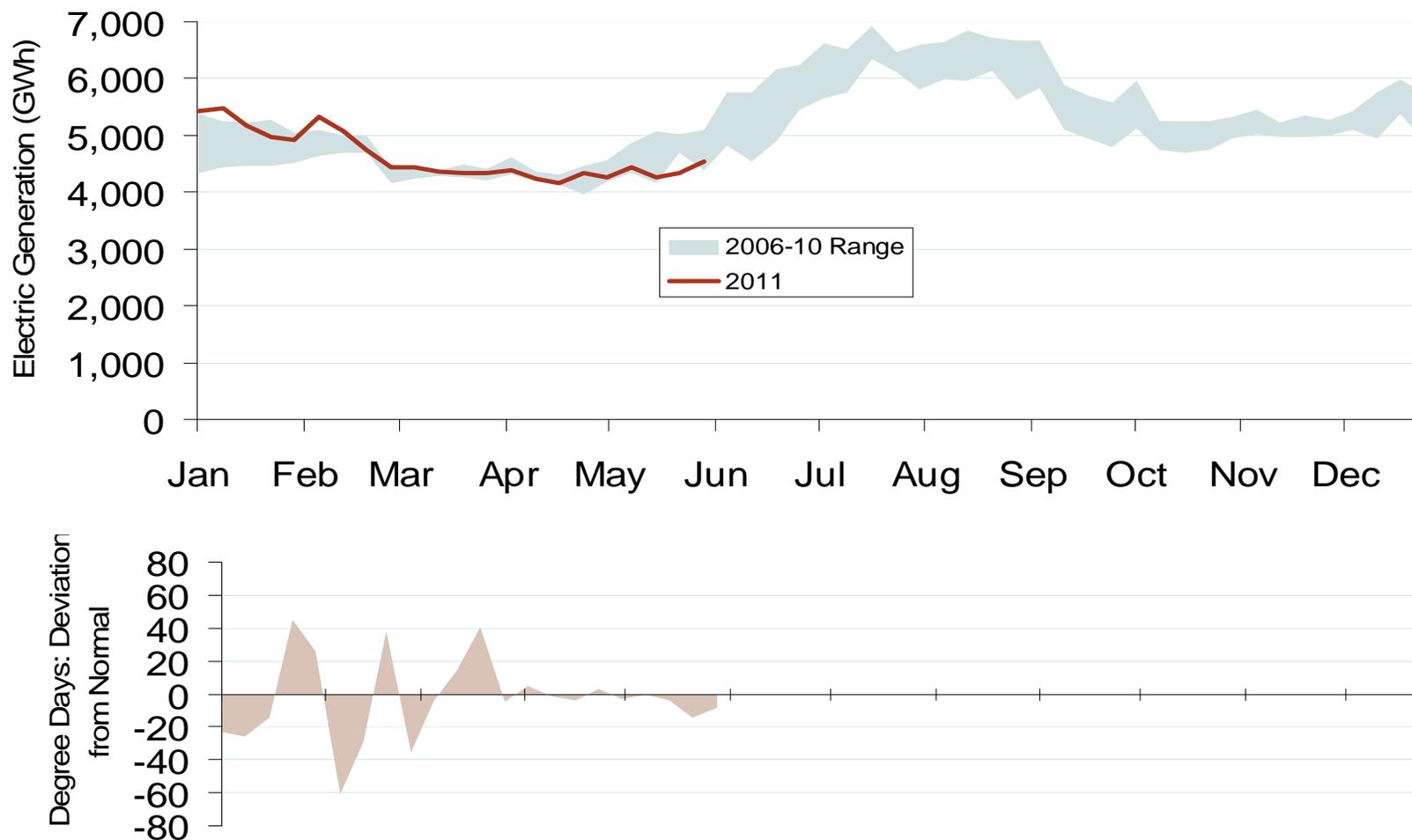
Weekly U.S. Electric Generation Output and Temperatures



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

Updated June 3, 2011

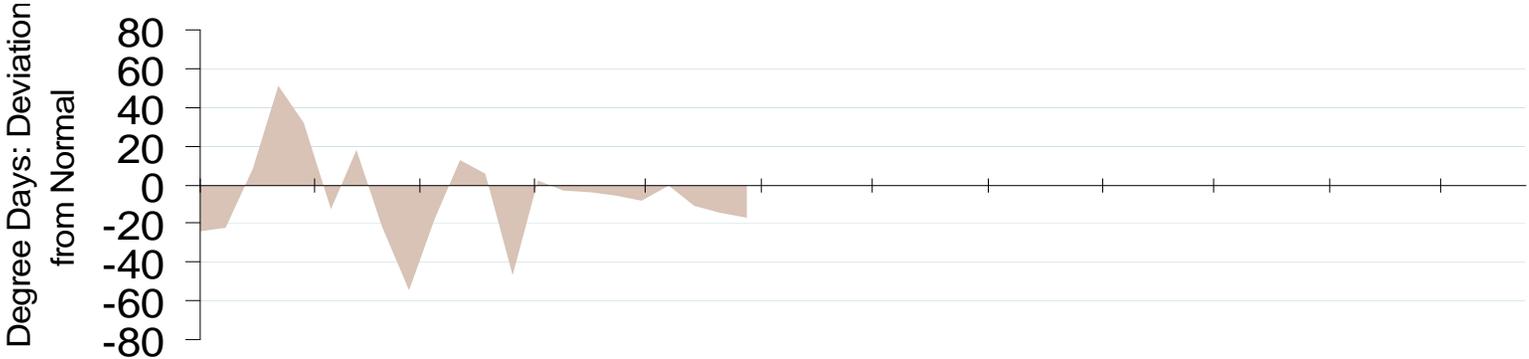
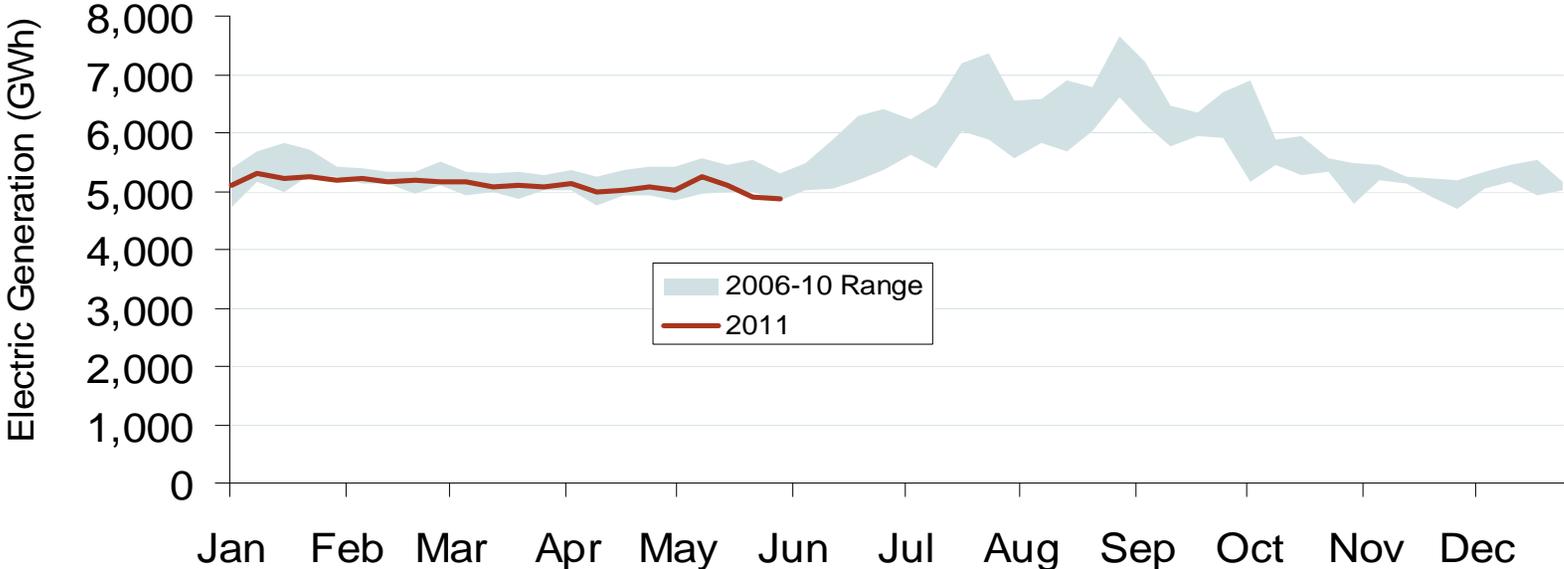
Weekly Electric Generation Output and Temperatures Rocky Mountain Region



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

Updated June 3, 2011

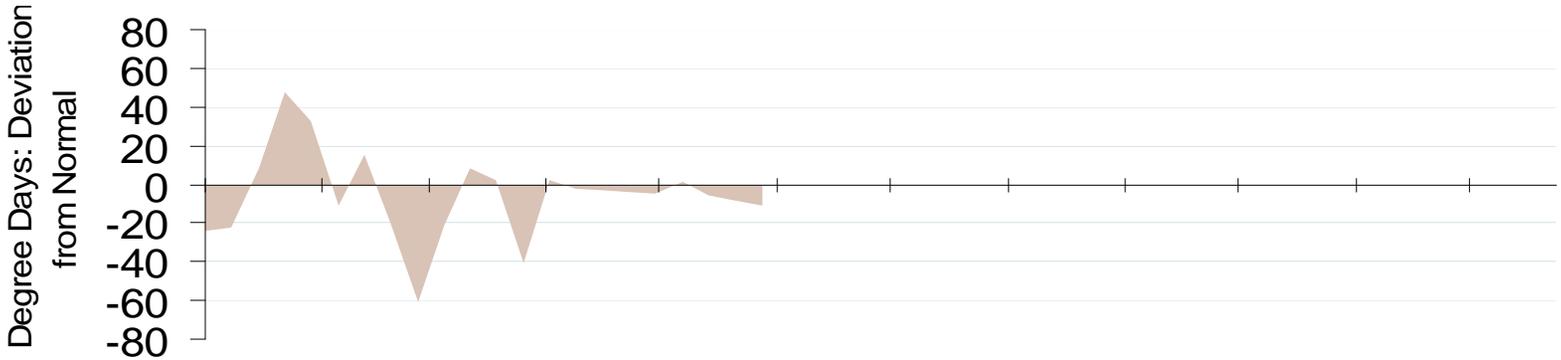
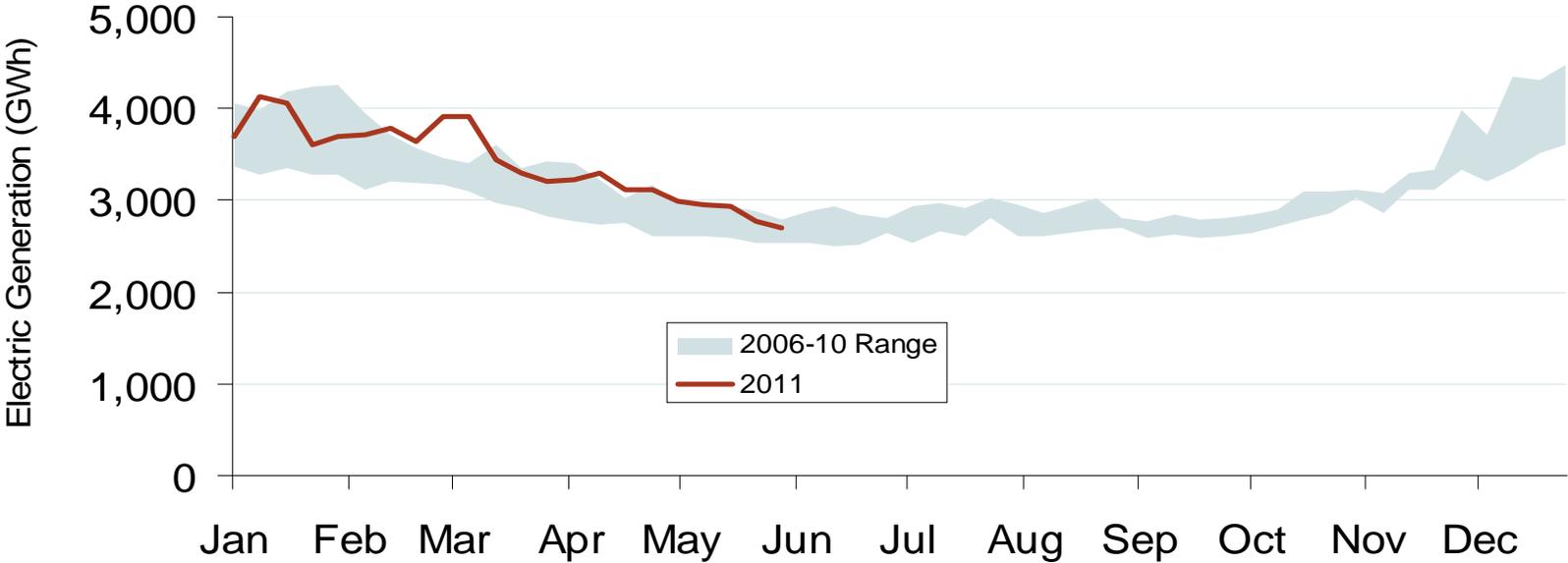
Weekly Electric Generation Output and Temperatures California



Source: Derived from *EEI* and *NOAA* data.
June 2011 Western Snapshot Report

Updated June 3, 2011

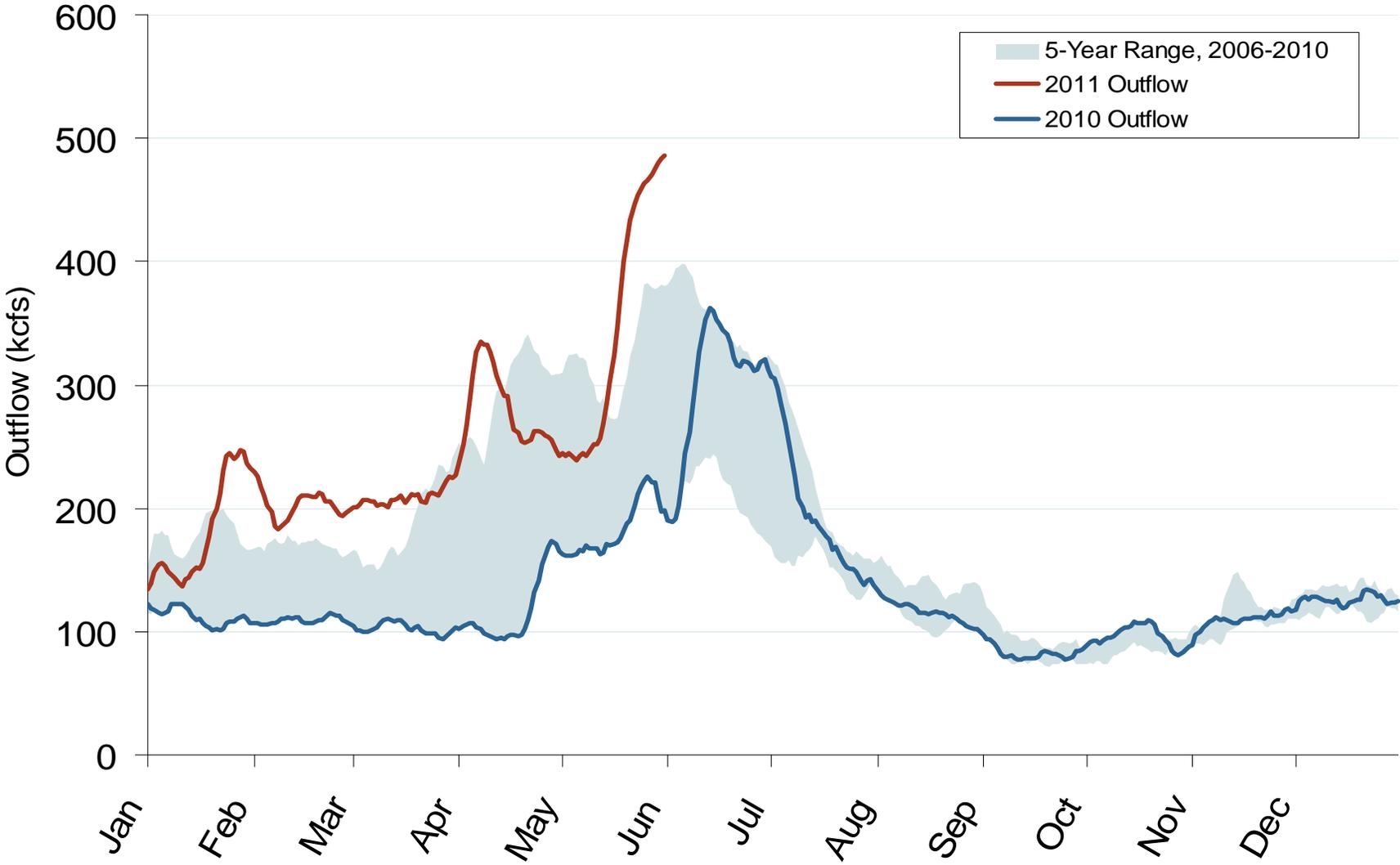
Weekly Electric Generation Output and Temperatures Pacific Northwest Region



Source: Derived from *EI* and *NOAA* data.
June 2011 Western Snapshot Report

Updated June 3, 2011

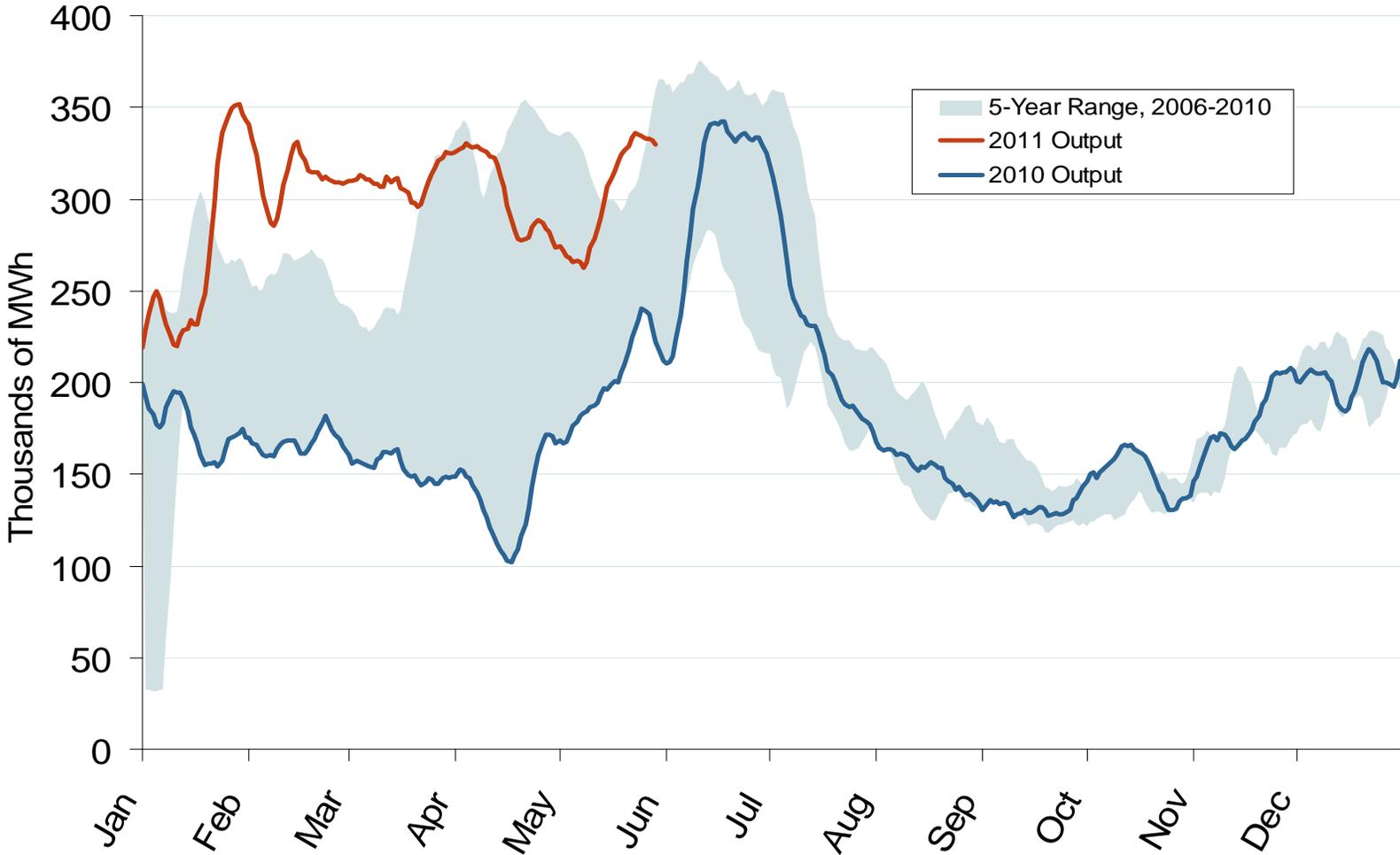
Stream Flow at The Dalles Dam



Source: Derived from USACE data.

Data series are 7-day moving averages.

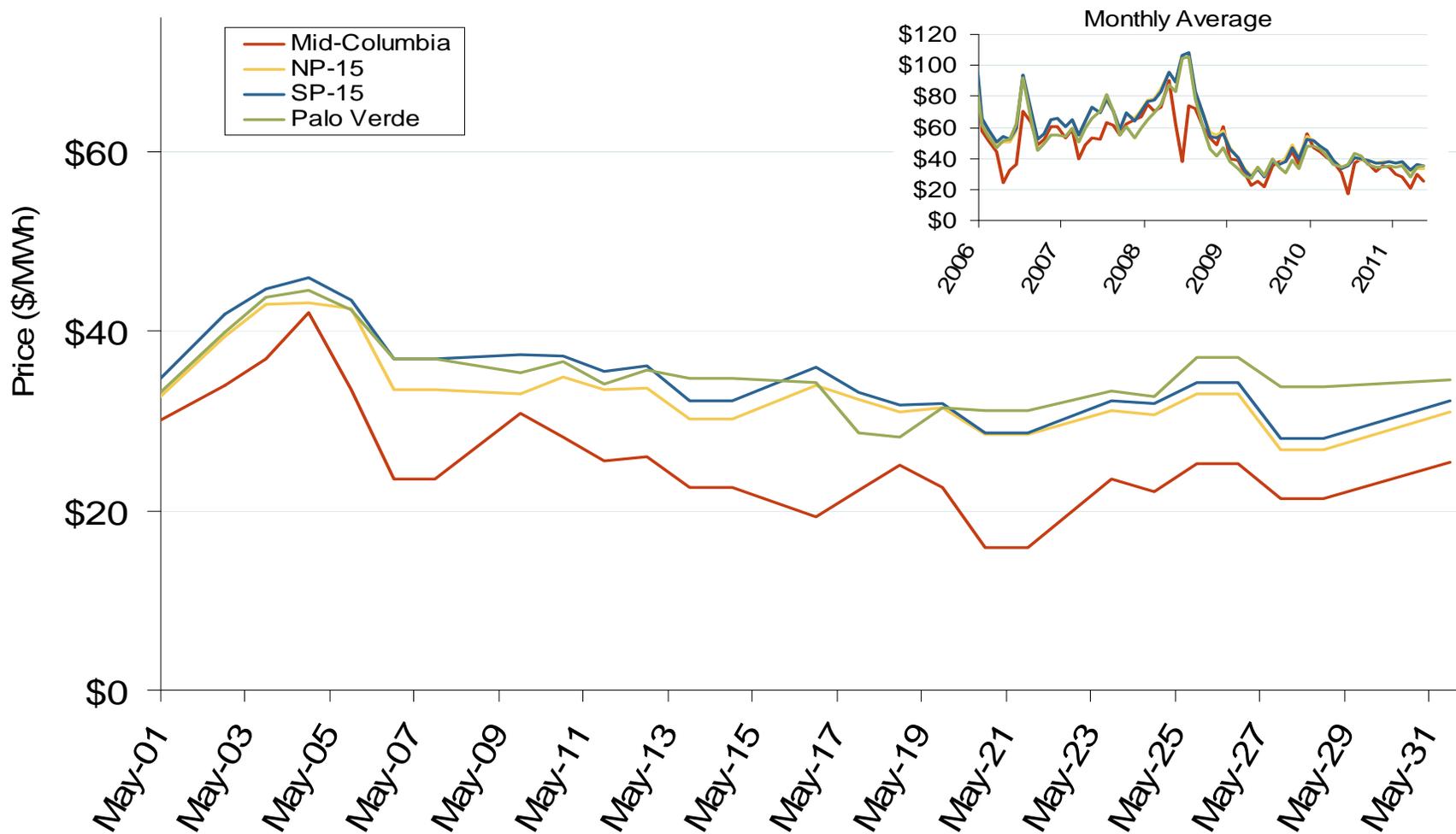
Pacific Northwest Hydroelectric Production



Source: Derived from USACE data reflecting the output of the 24 largest facilities.

Note: Trend lines are 7-day moving averages.

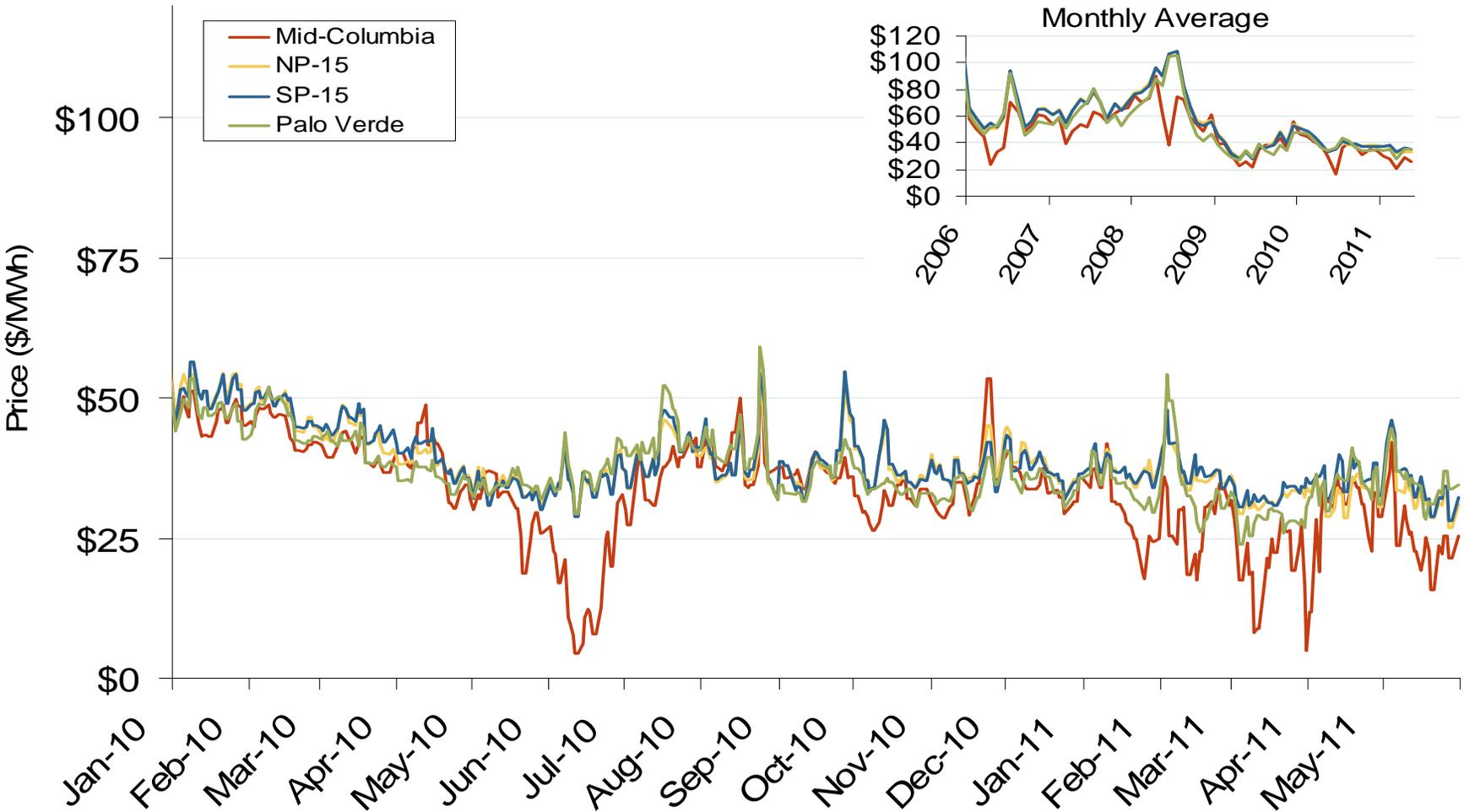
Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated June 3, 2011

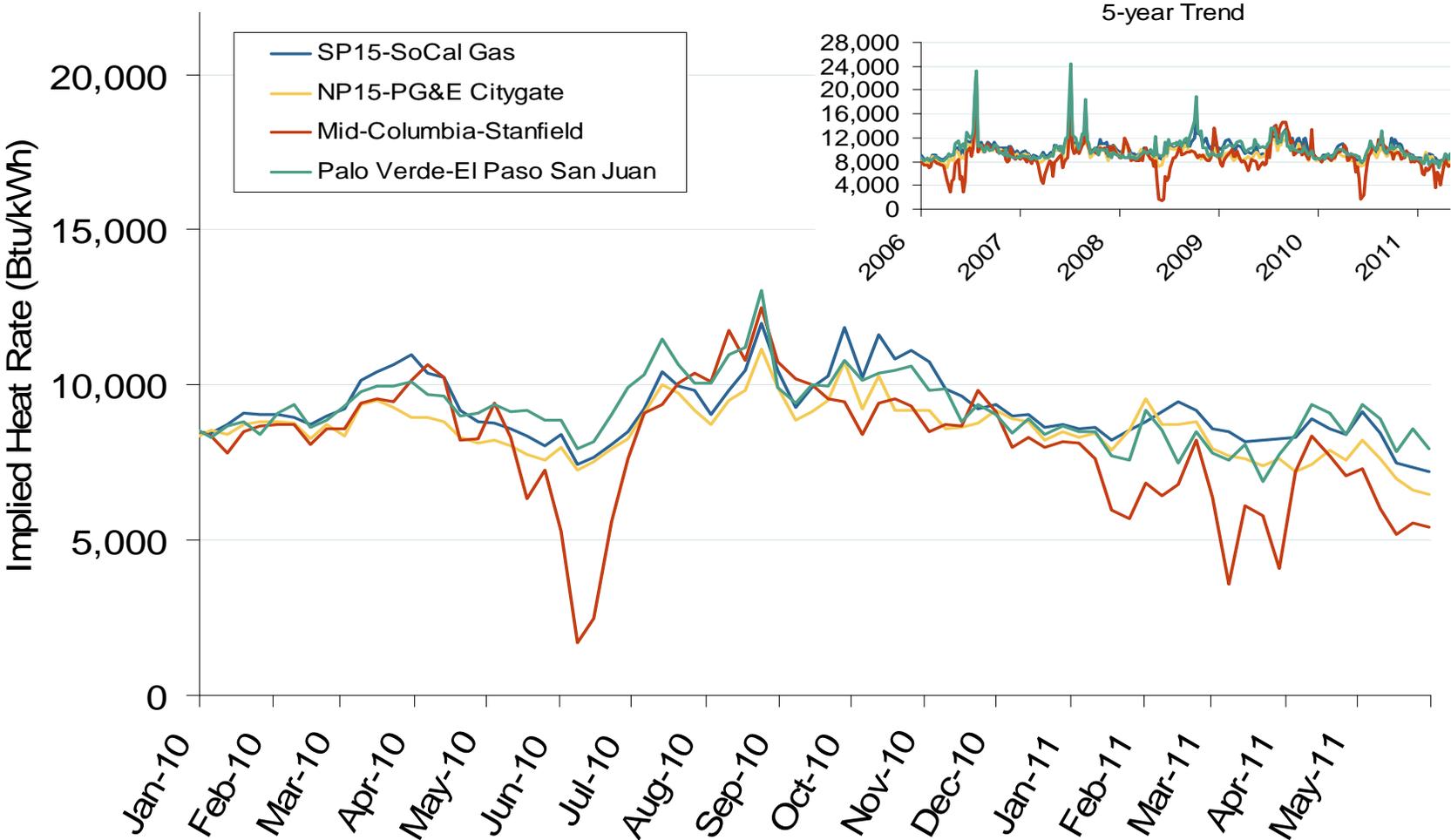
Western Daily Bilateral Day-Ahead On-Peak Prices



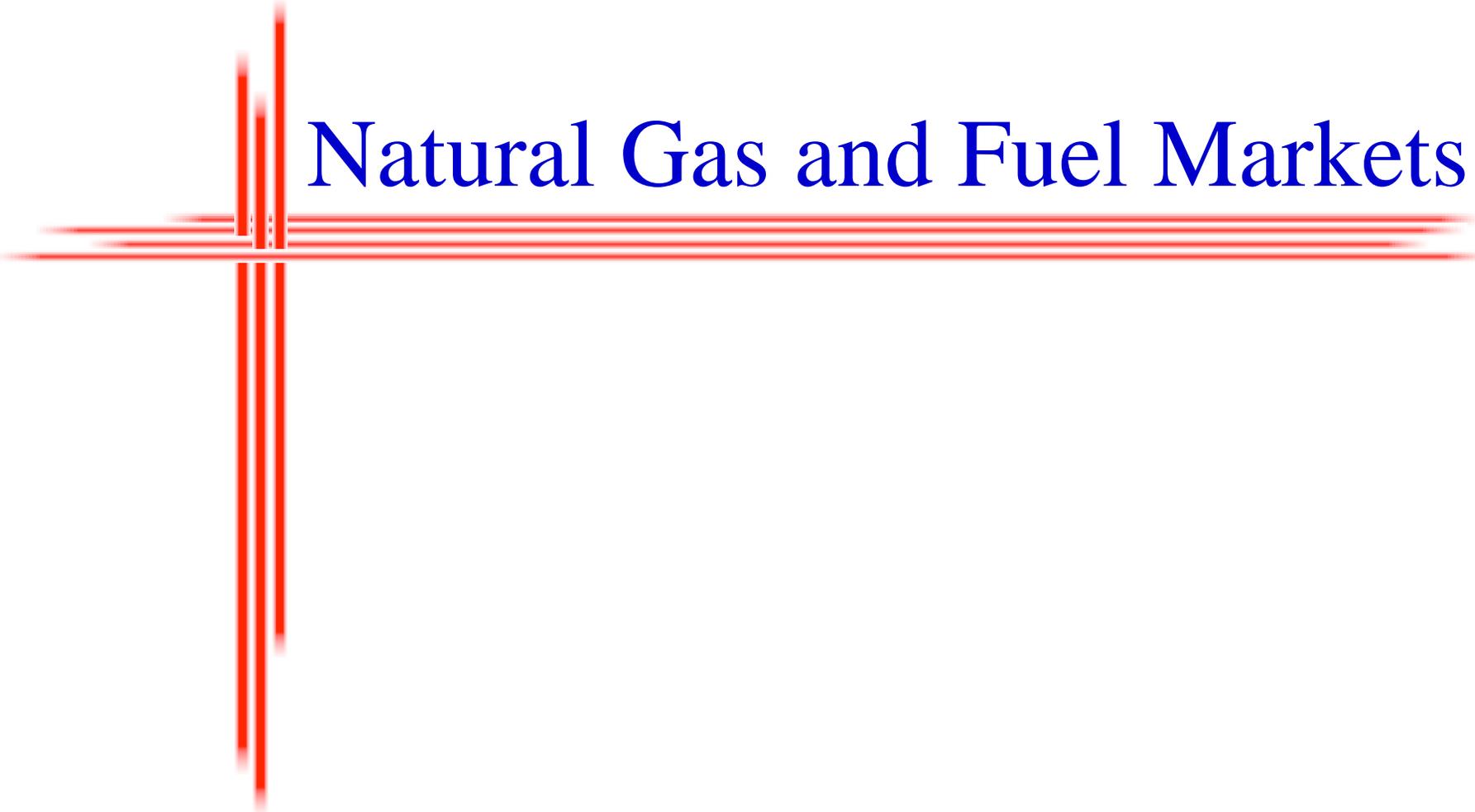
Source: Derived from *Platts* data.

Updated June 3, 2011

Implied Heat Rates at Western Trading Points Weekly Averages

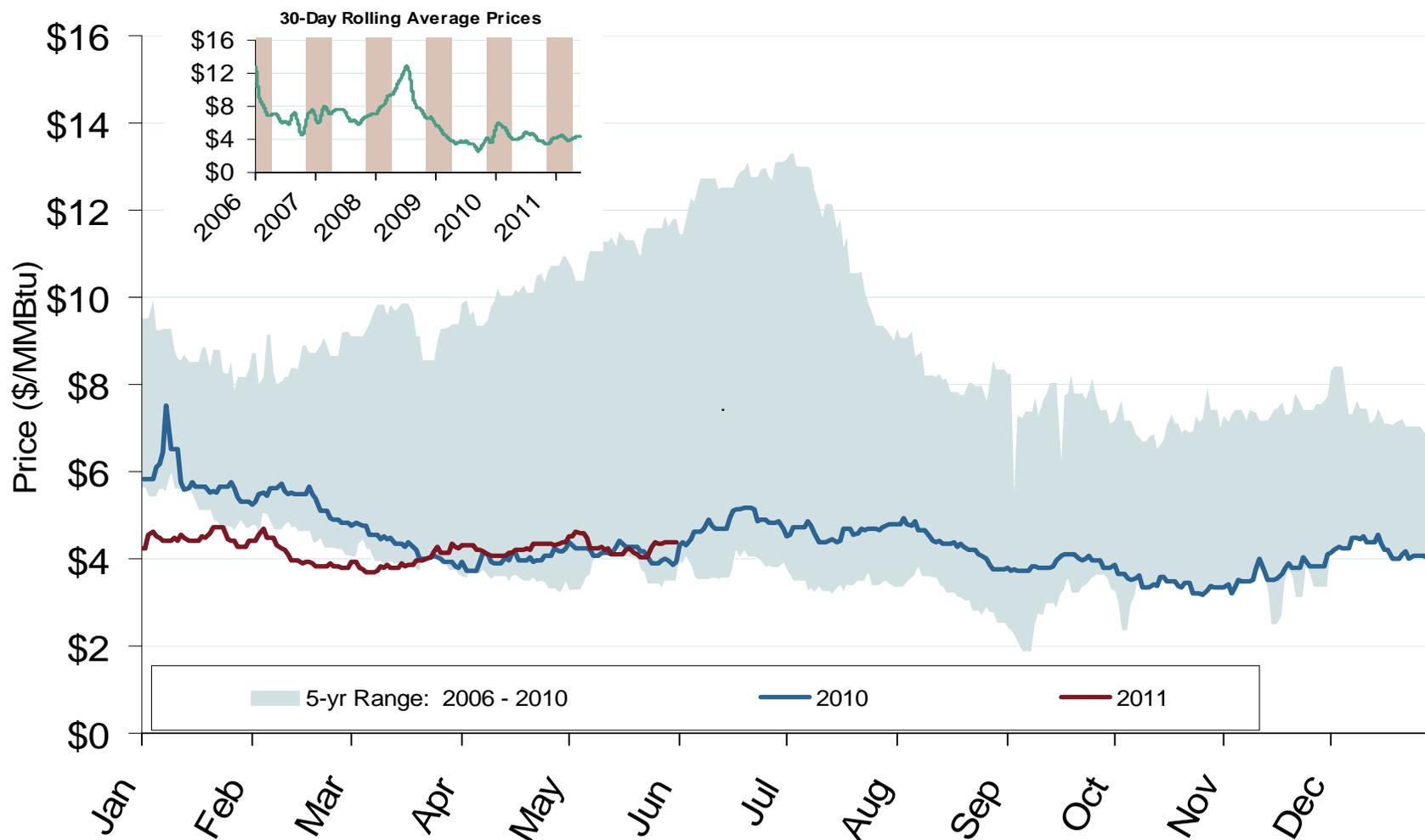


Source: Derived from *Platts* on-peak electric and natural gas price data.



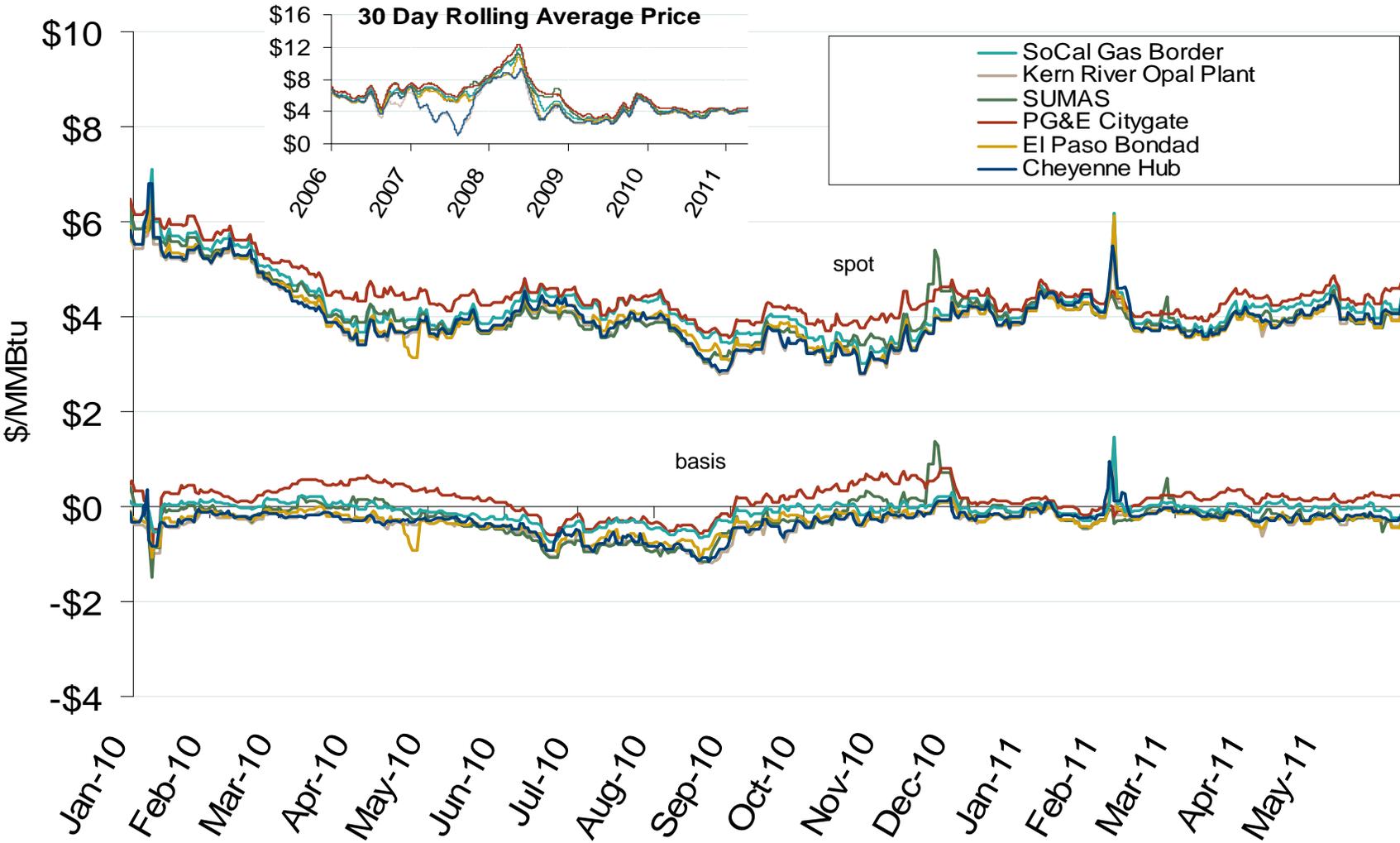
Natural Gas and Fuel Markets

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

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight**Henry Hub Natural Gas Daily Spot Prices**Source: Derived from *Platts* data.

Updated June 3, 2011

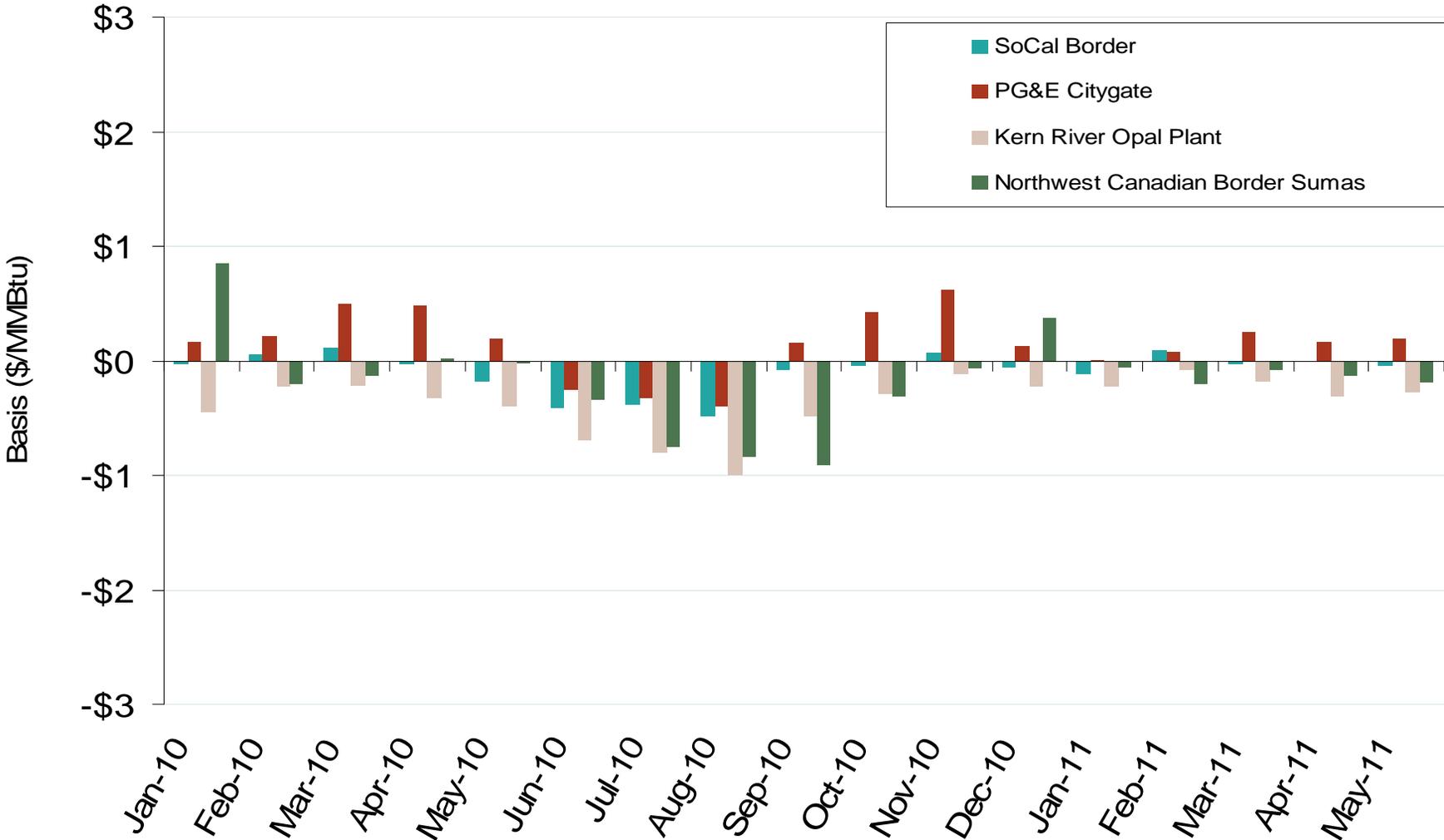
Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated June 3, 2011

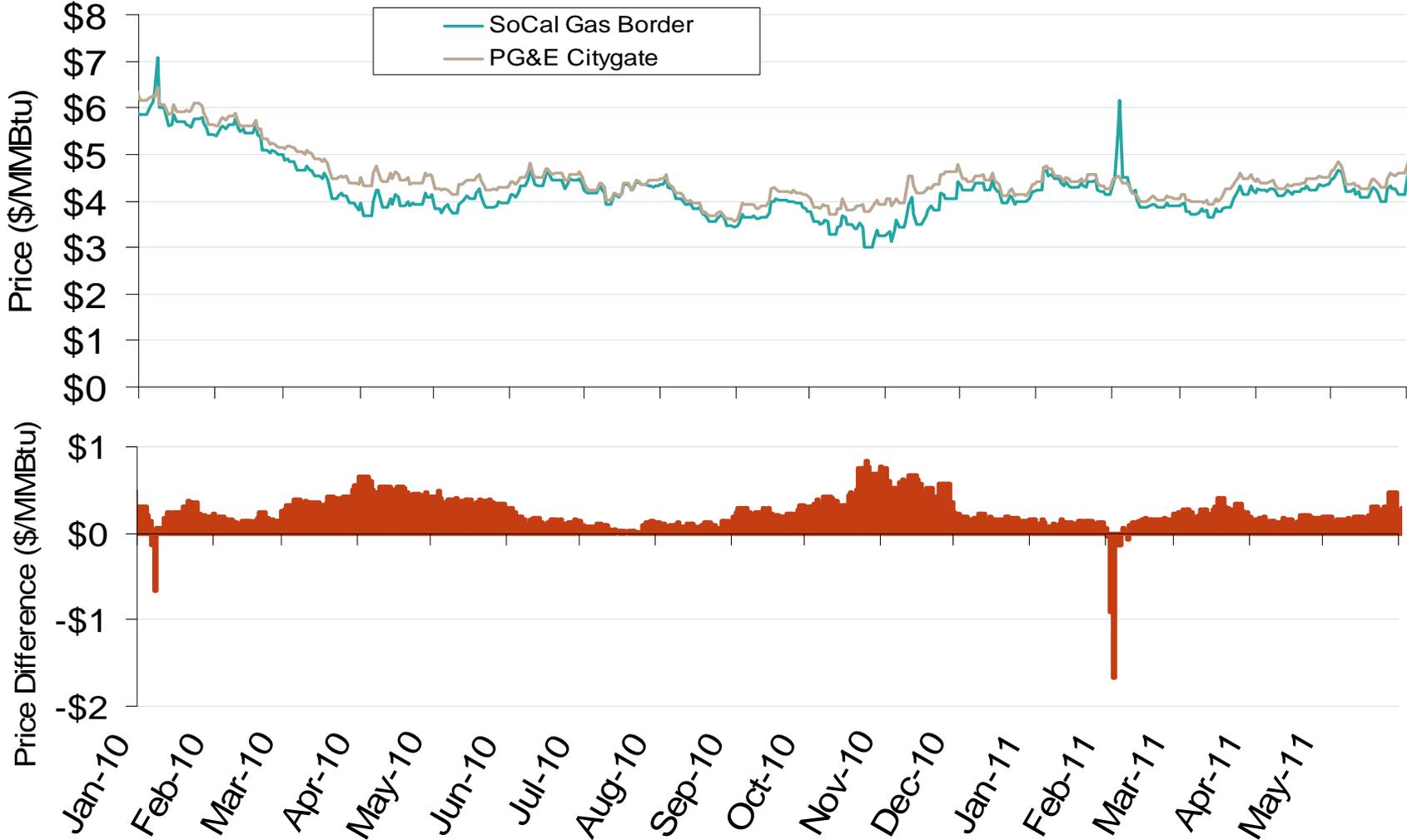
Western Monthly Average Basis Value to Henry Hub



Source: Derived from Platts data.
June 2011 Western Snapshot Report

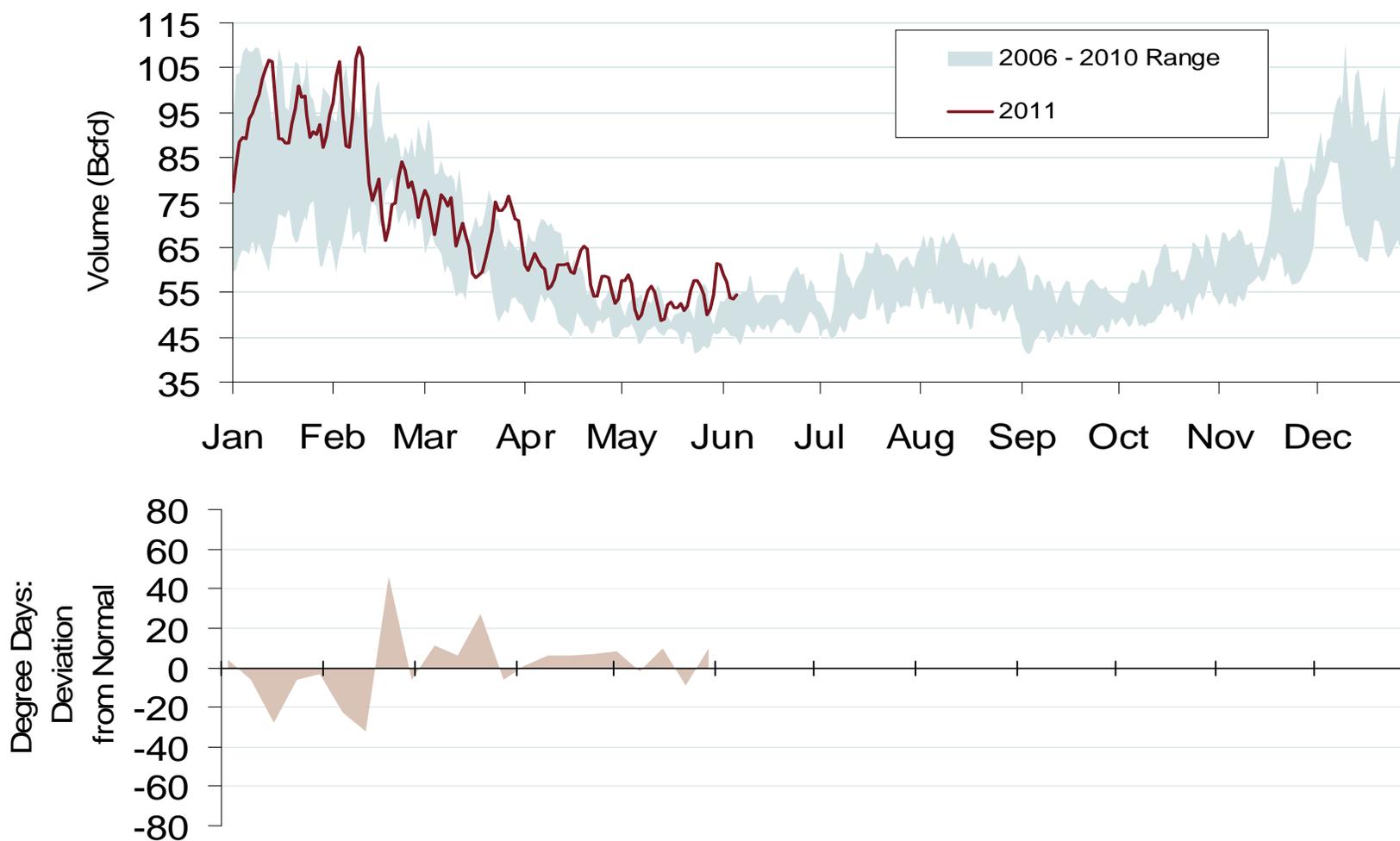
Updated June 3, 2011

Difference in Northern and Southern California Daily Spot Prices



Source: Derived from *Platts* data.

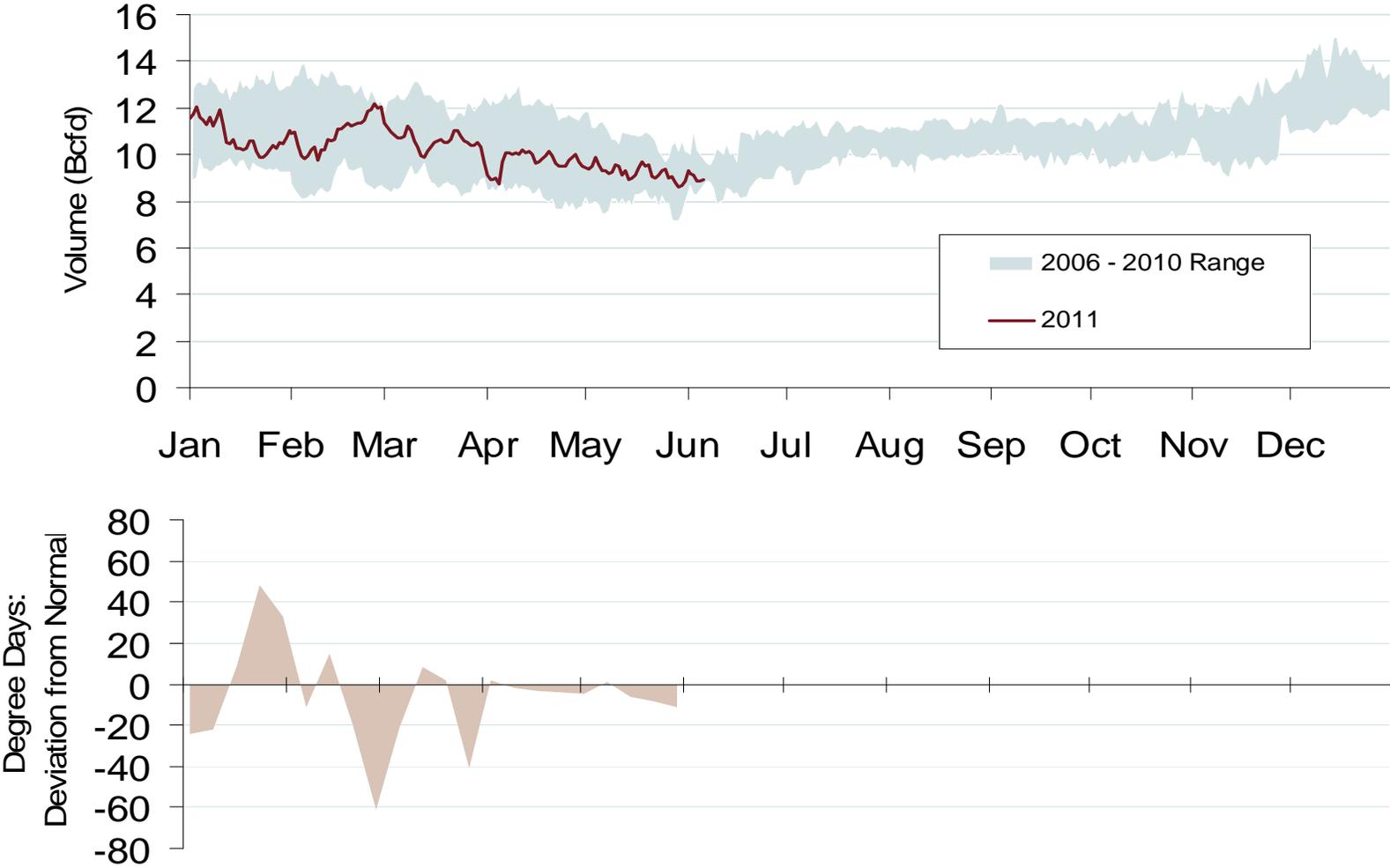
Total U.S. Natural Gas Demand (All Sectors) and Temperatures



Source: Derived from *Bentek Energy* and *Weekly NOAA* data.

Updated June 3, 2011

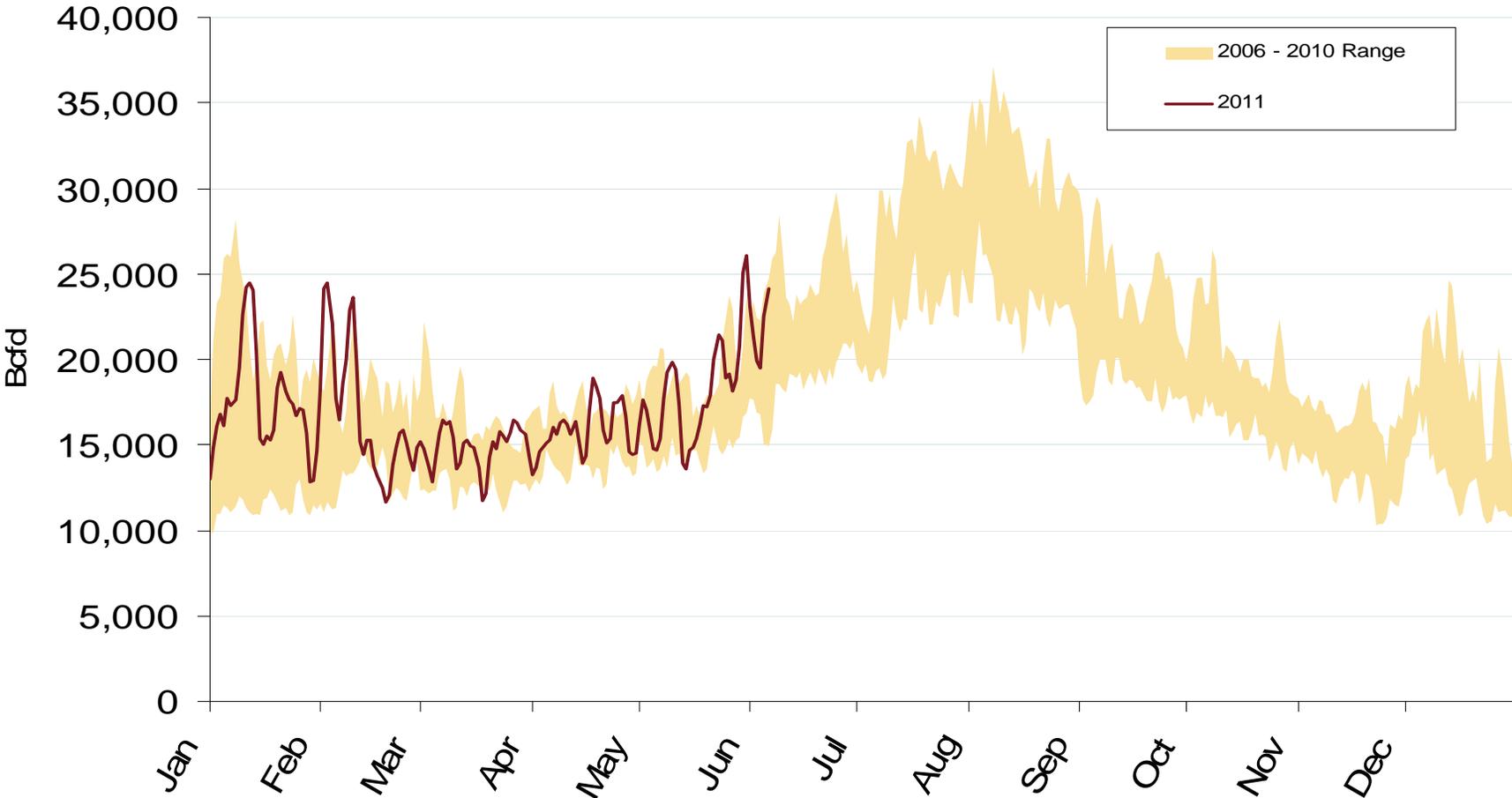
Daily Western Natural Gas Demand - All Sectors



Source: Derived from *Bentek Energy* and *Weekly NOAA* data.

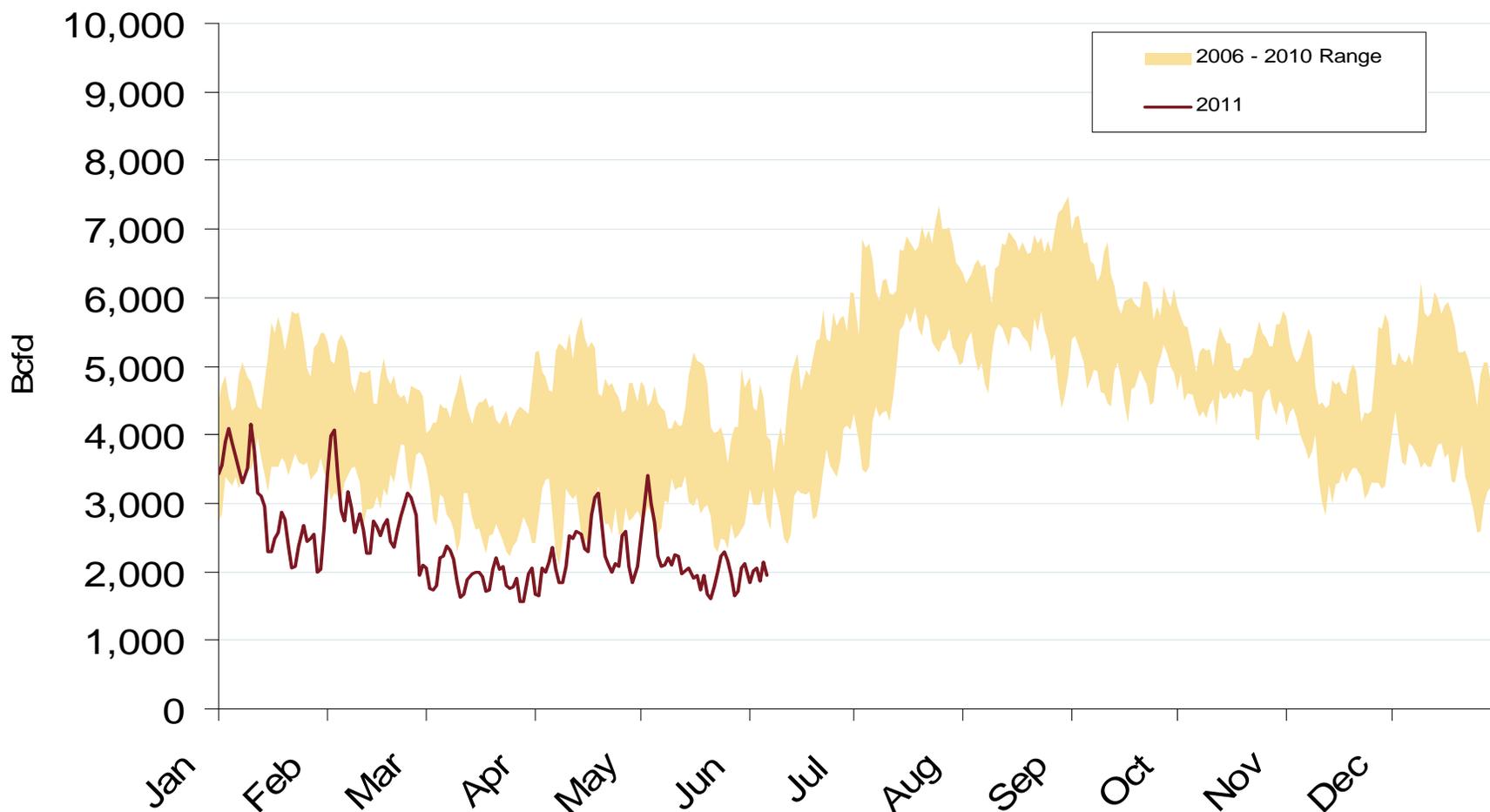
Updated June 3, 2011

U.S. Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

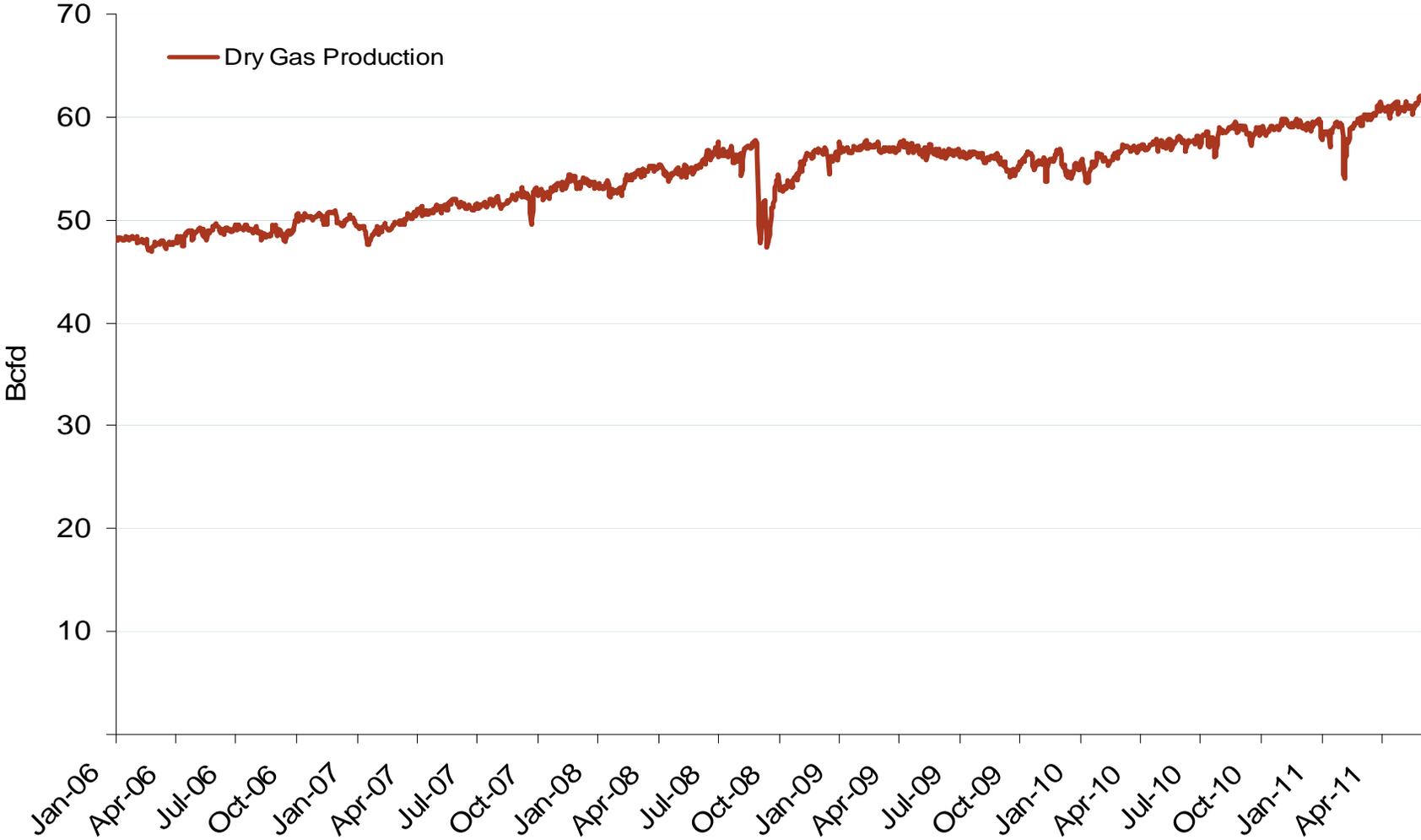
Western Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

Updated June 3, 2011

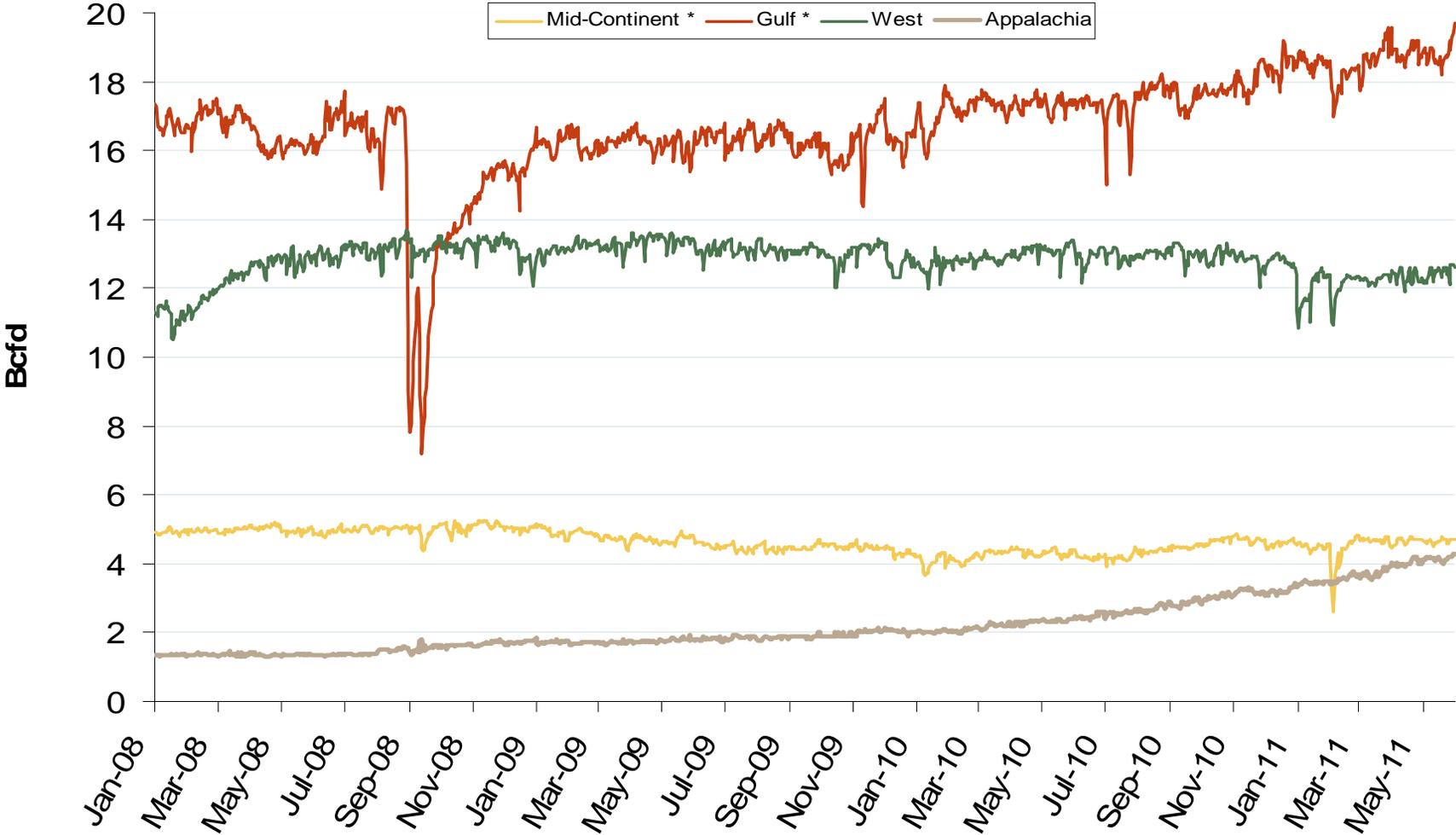
U.S. Dry Gas Production



Source: Derived from EIA and Bentek data.
June 2011 Western Snapshot Report

Updated June 3, 2011

Regional Natural Gas Production



Source: Derived from Bentek data.

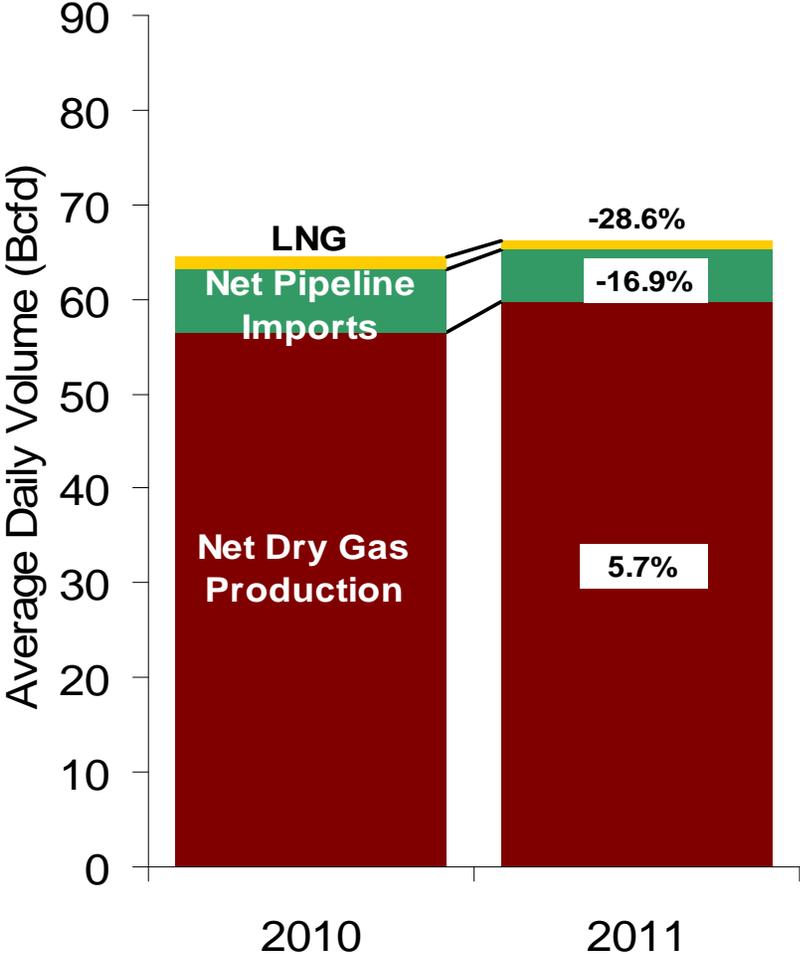
* On July 1, 2009 Bentek redefined its regions, moving some of the southern Midcontinent production to the Southeast, which is included in Gulf series.

Updated June 3, 2011

U.S. Natural Gas Supply and Demand 2010 vs. 2011: January - May

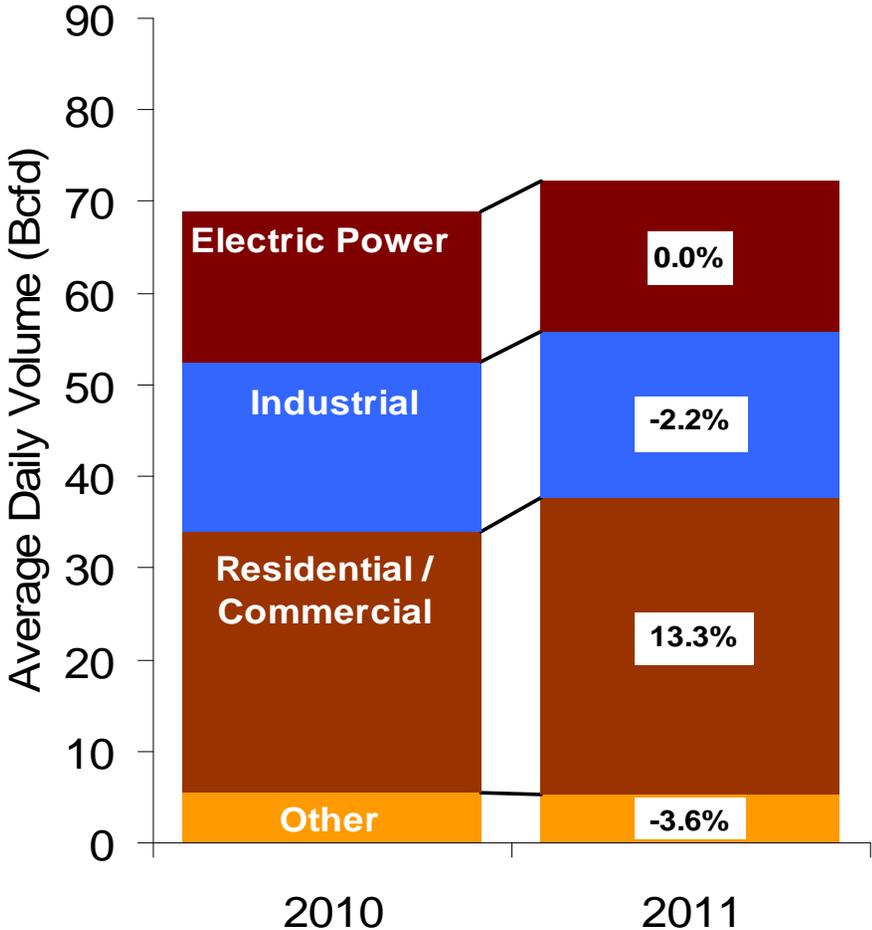
US Natural Gas Supply

Total Change in Supply 3.4%



US Natural Gas Demand

Total Change in Demand 4.6%

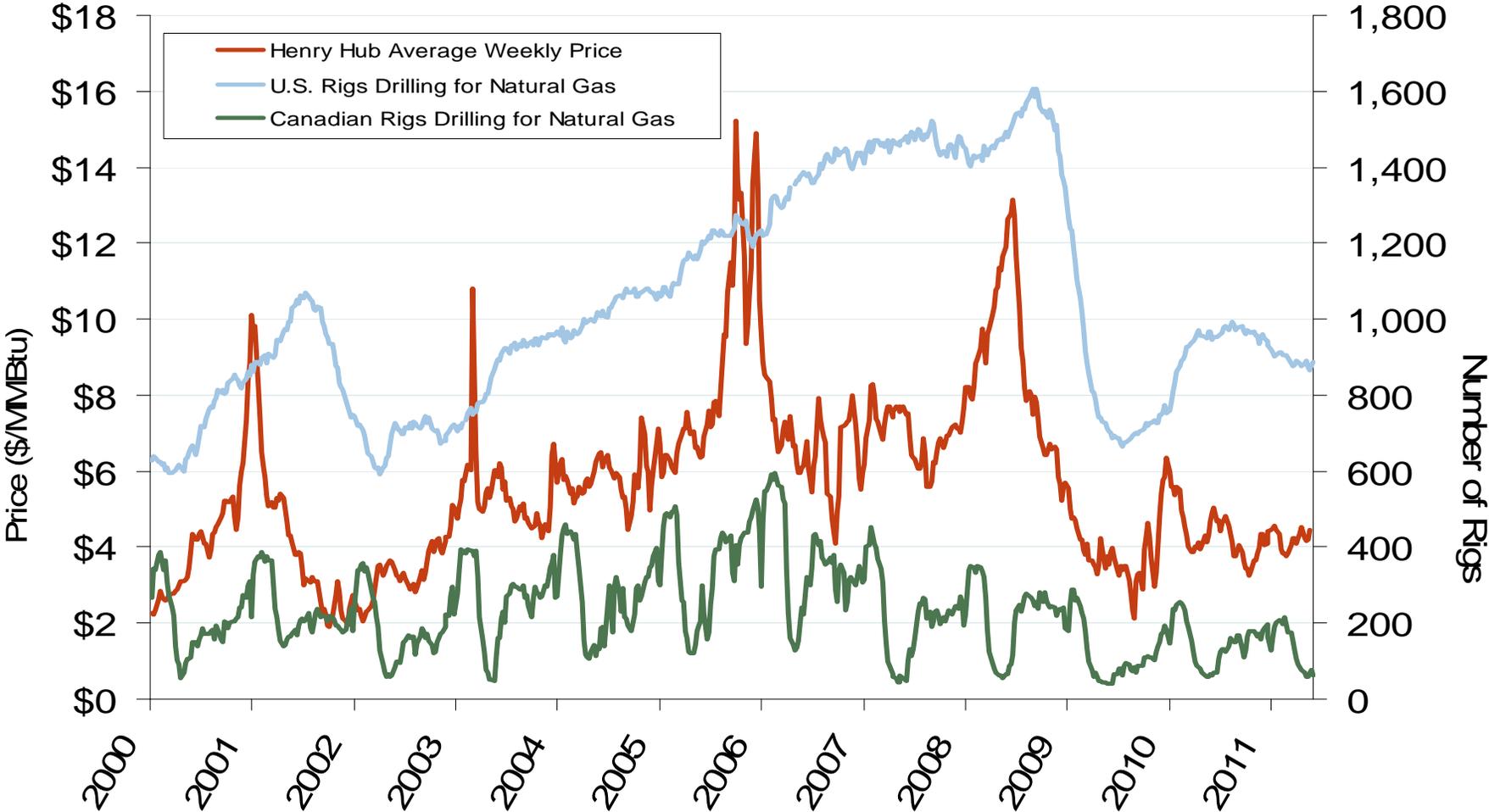


Source: Derived from Bentek data.
June 2011 Western Snapshot Report

Updated June 3, 2011

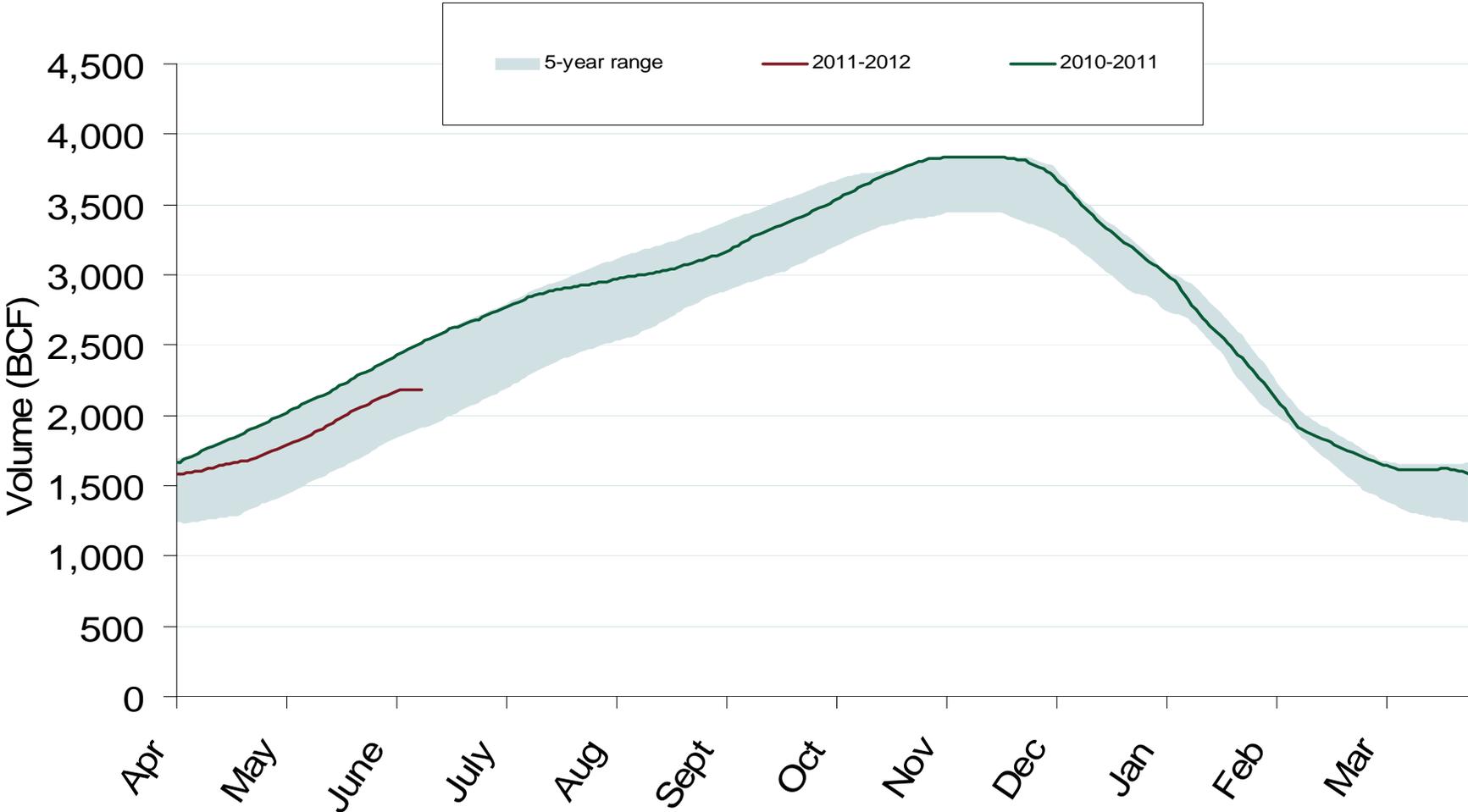
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U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

Total U.S. Working Gas in Storage

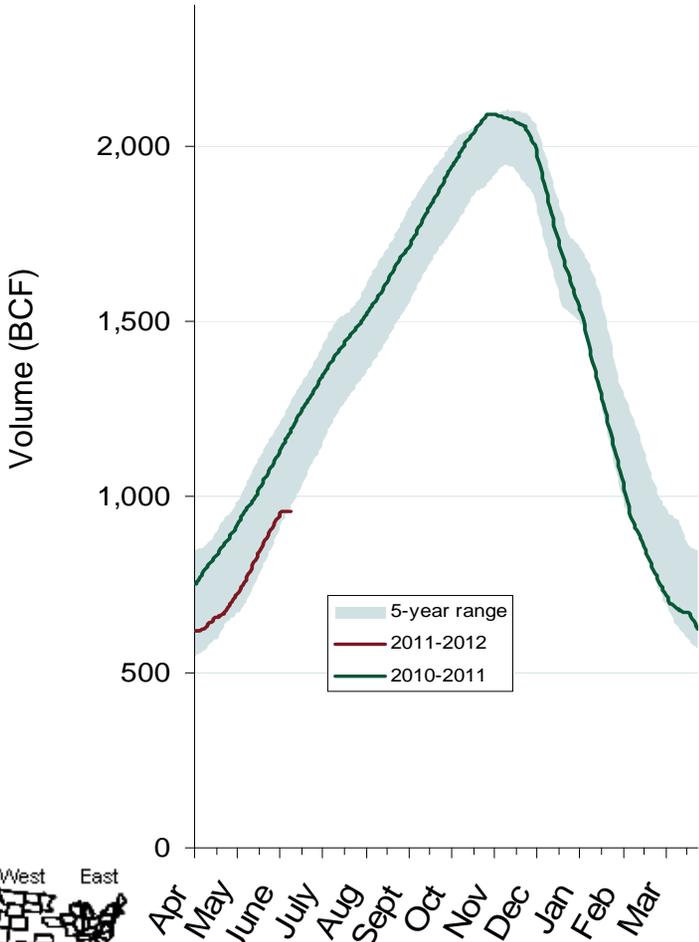


Source: Derived from EIA data.
June 2011 Western Snapshot Report

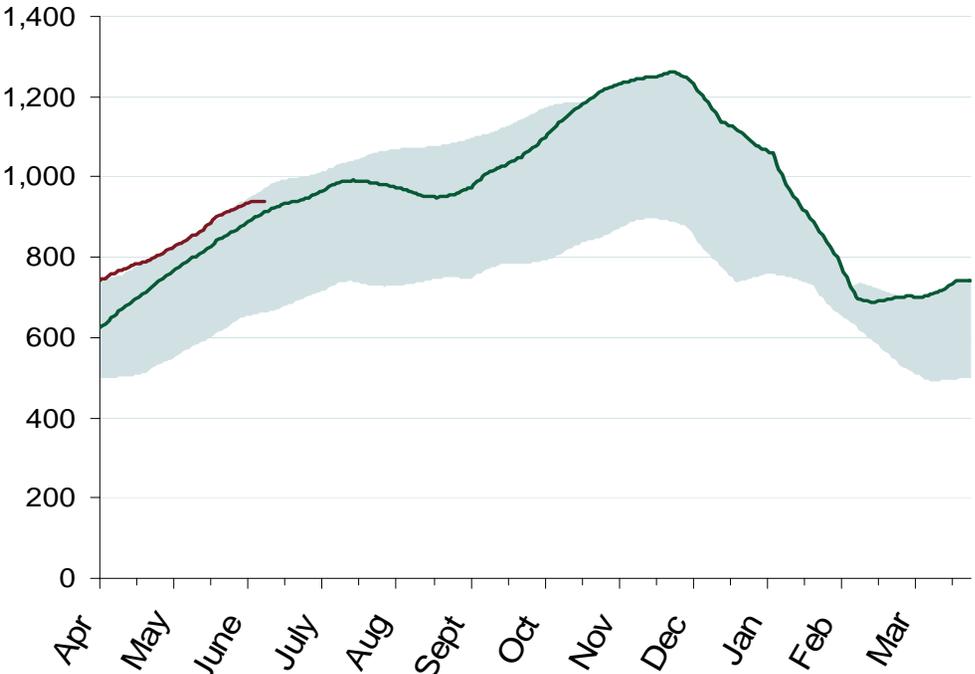
Updated June 3, 2011

Regional Totals of Working Gas in Storage

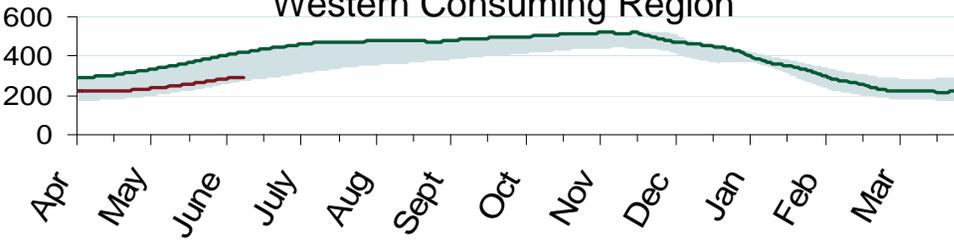
Eastern Consuming Region



Producing Region



Western Consuming Region

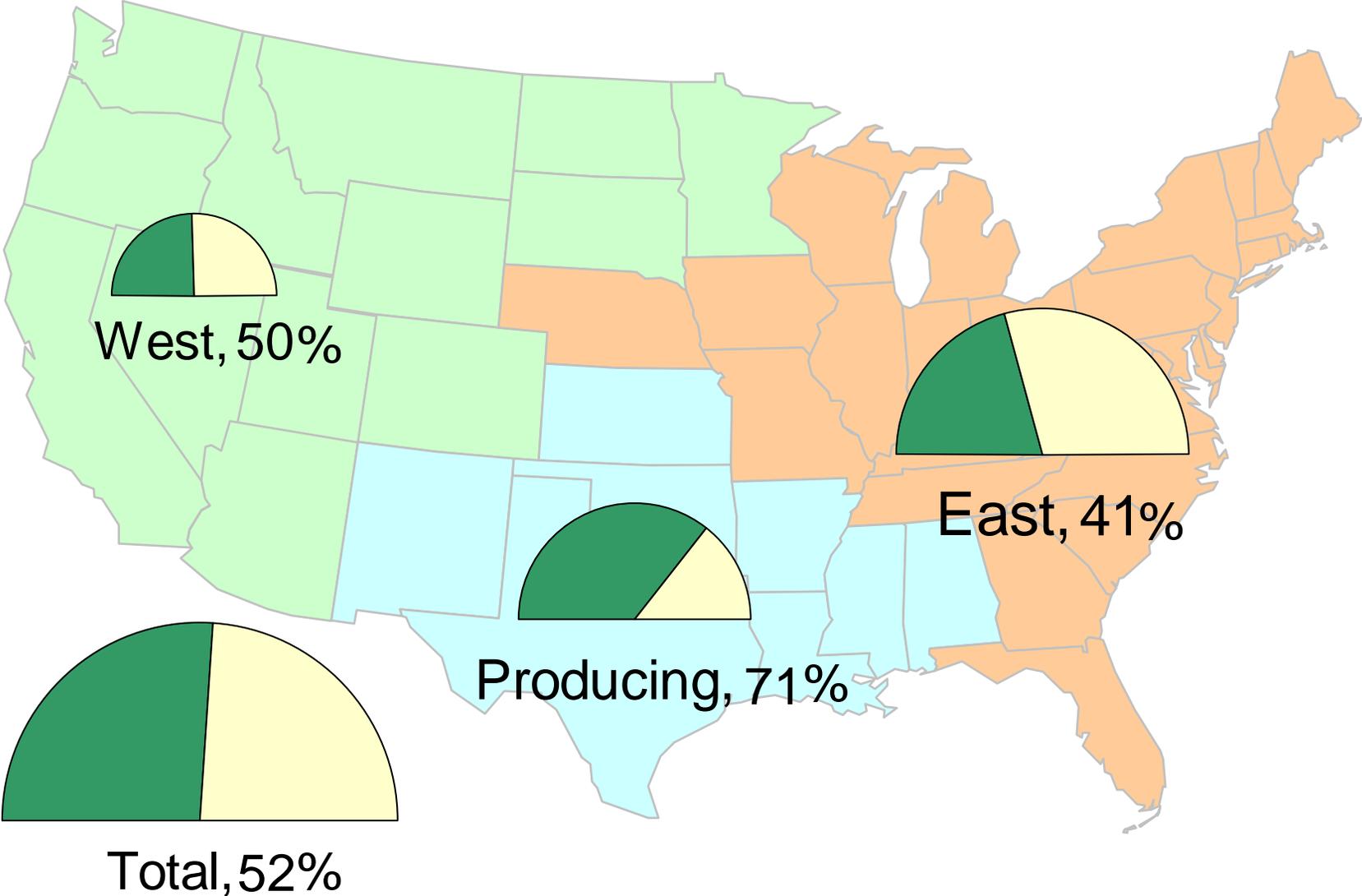


Source: Derived from EIA data.

June 2011 Western Snapshot Report

Updated June 3, 2011

Natural Gas Storage Inventories – May 27, 2011

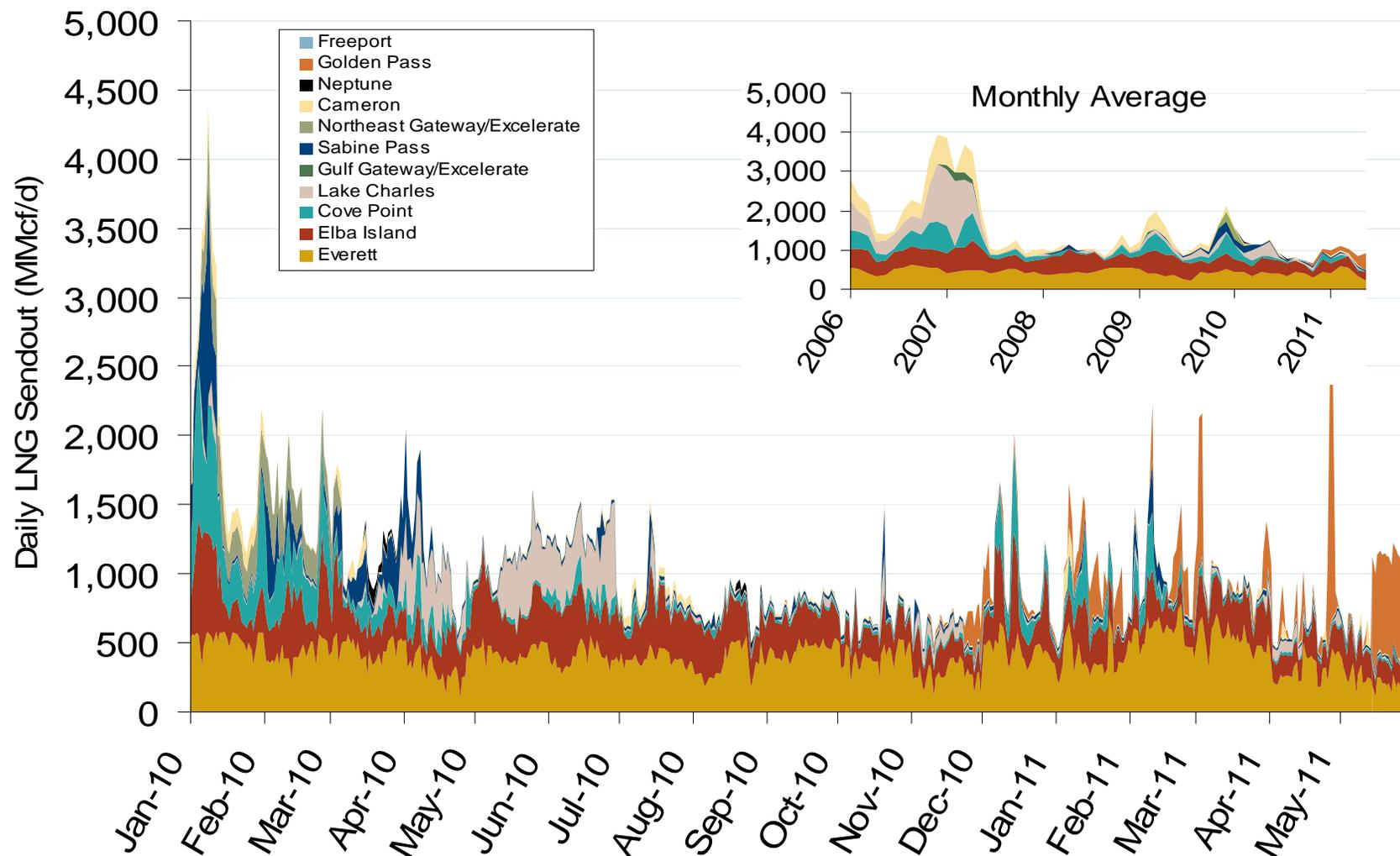


Source: Derived from *EIA Storage and Estimated Working Gas Capacity* data.
June 2011 Western Snapshot Report

World LNG Estimated July 2011 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 3, 2011

Status of U.S. LNG Re-exports and Exports

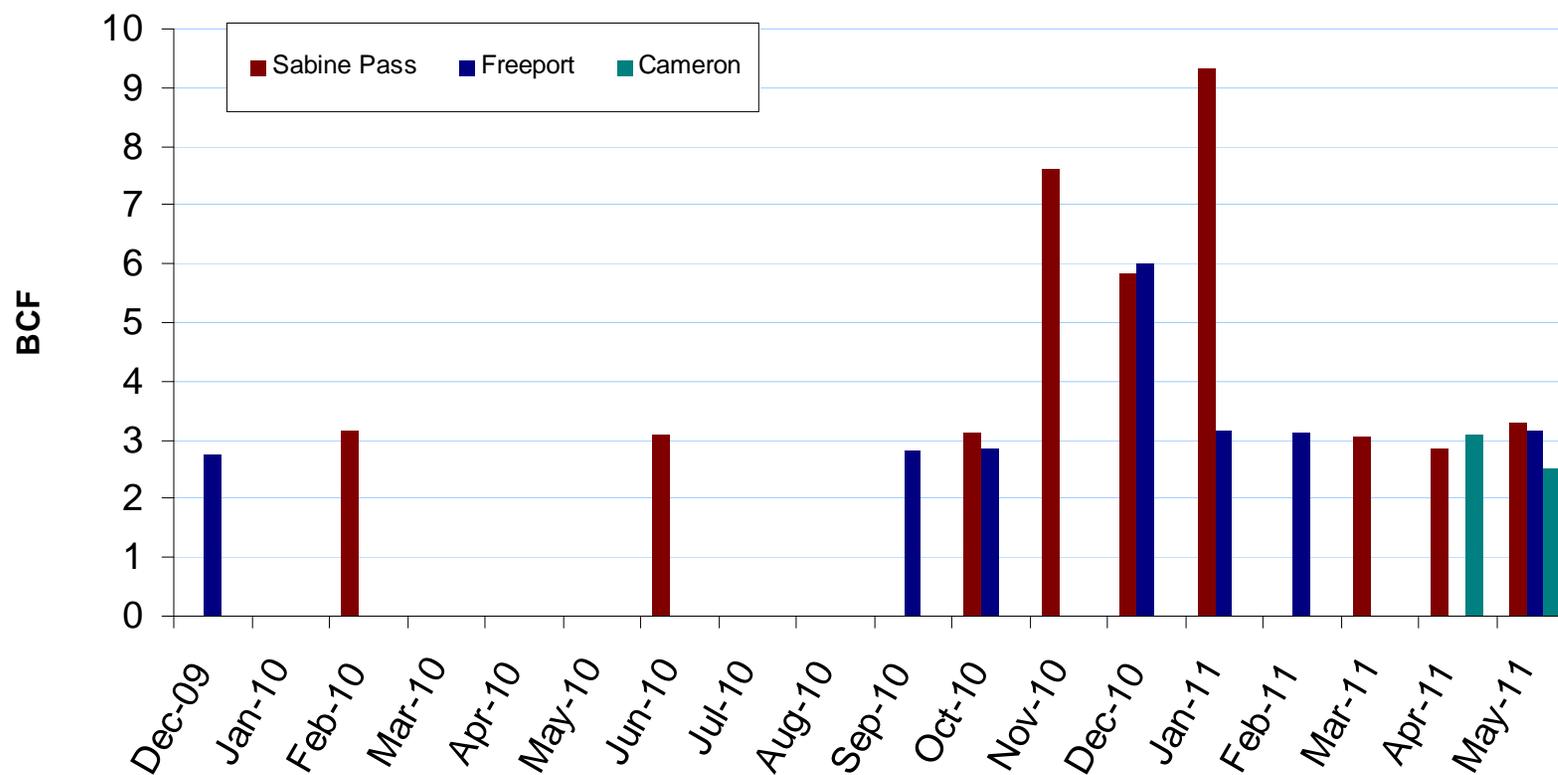
Re-Exports

- Terminals with re-export license: Sabine Pass in Cameron, LA; Freeport in Brazoria County, TX; and Cameron in Hackberry, LA
- Total re-exports through May 1, 2011: 73.9 Bcf

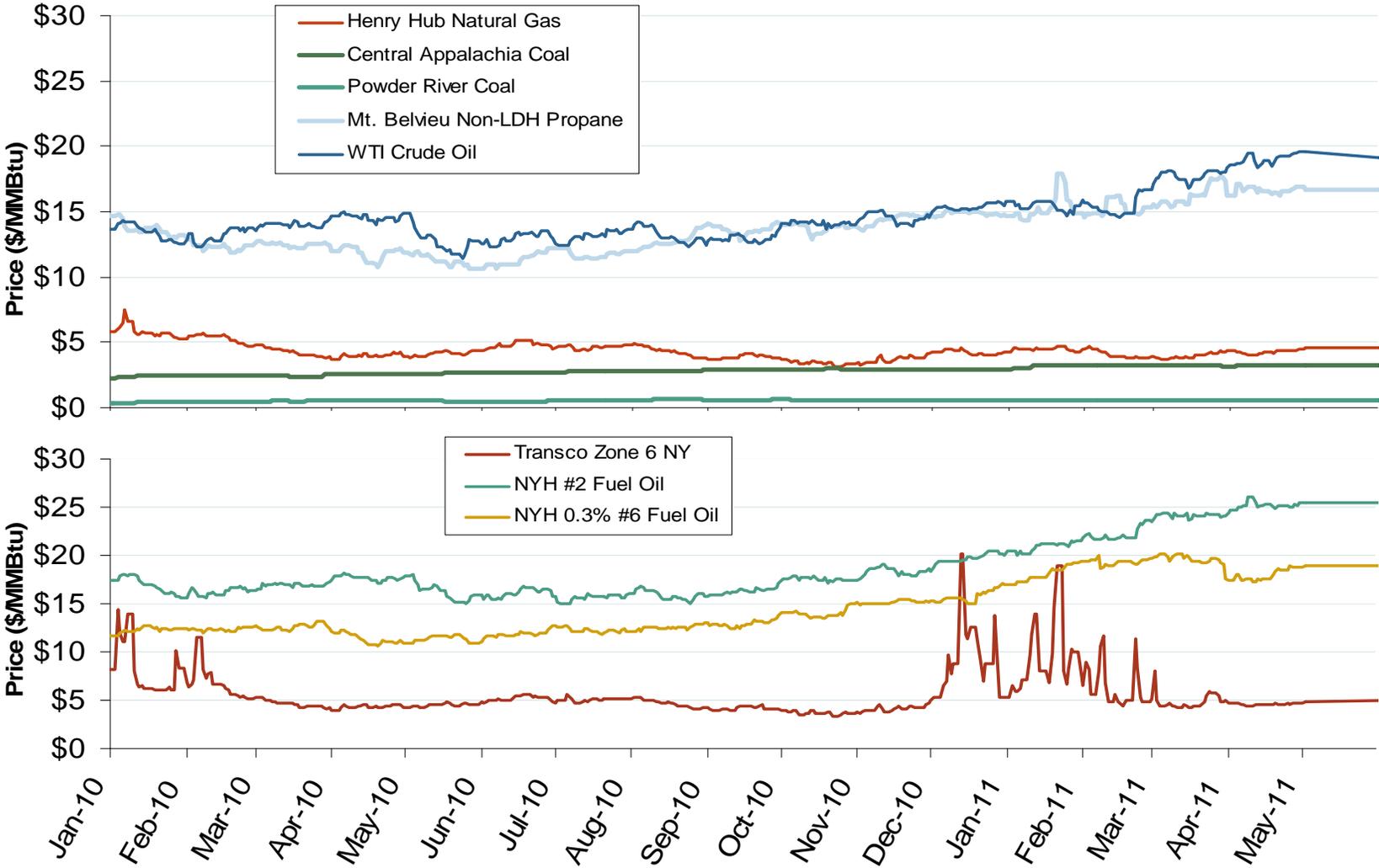
Exports

- Terminals with DOE export approval: Sabine Pass in Cameron, LA
- Earliest estimated date for exports: 2015, contingent on regulatory approval and project financing

U.S. LNG Re-exports



Oil, Coal, Natural Gas and Propane Daily Spot Prices

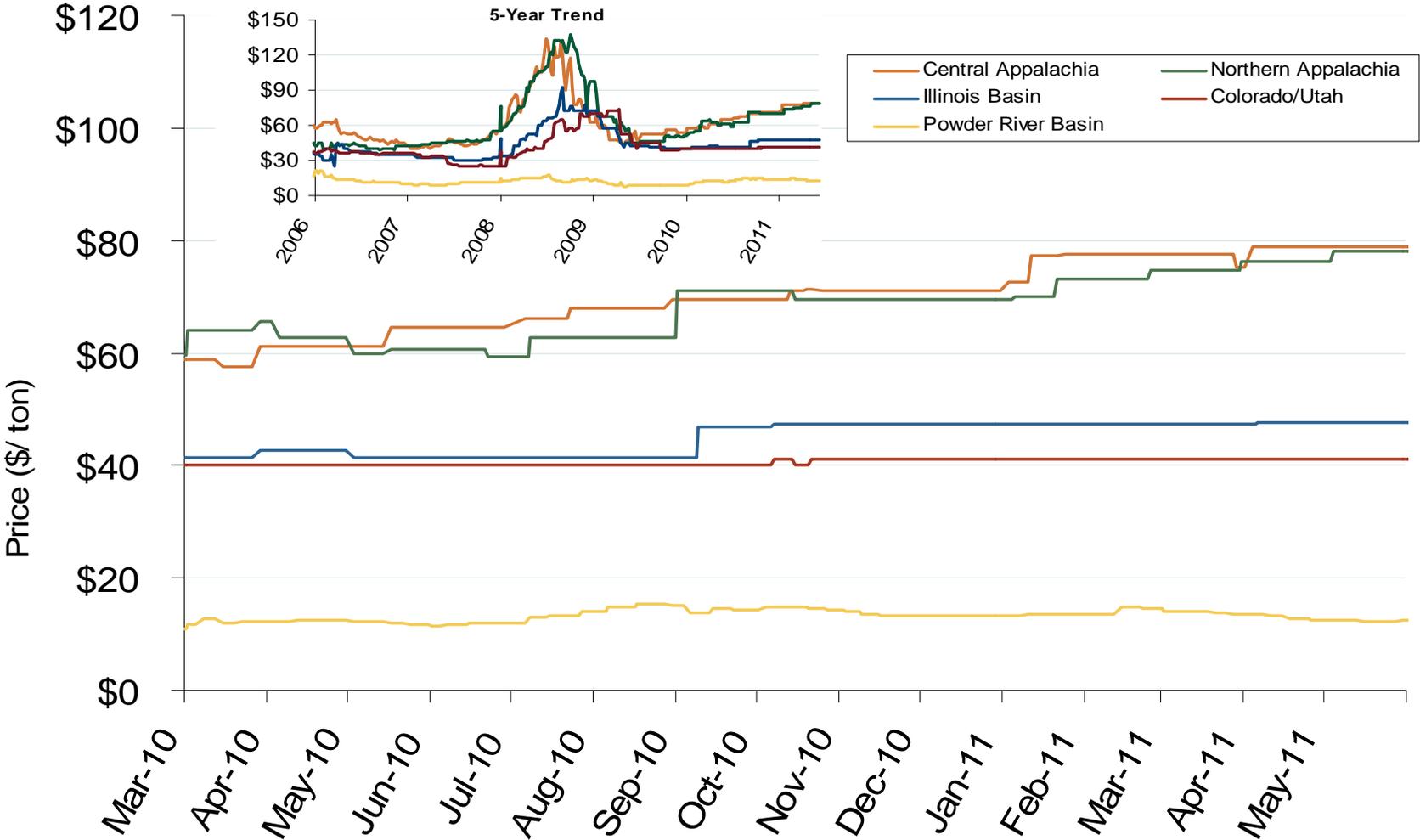


Source: Derived from ICE and Bloomberg data.

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 3, 2011

Regional Coal Spot Prices

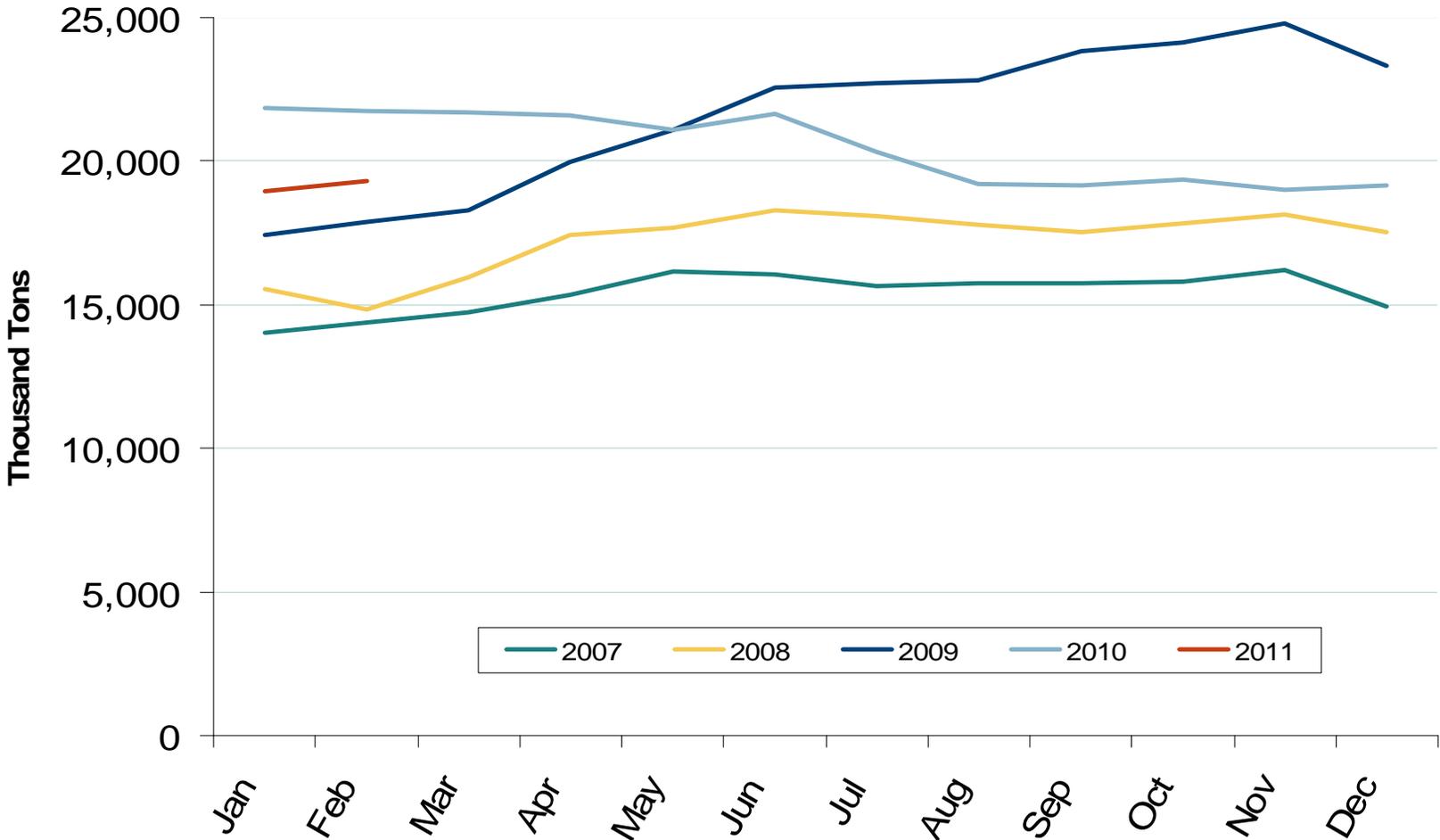


Note: the Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.
June 2011 Western Snapshot Report

Updated June 3, 2011

Western Coal Stockpiles at Electric Power Generating Facilities



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