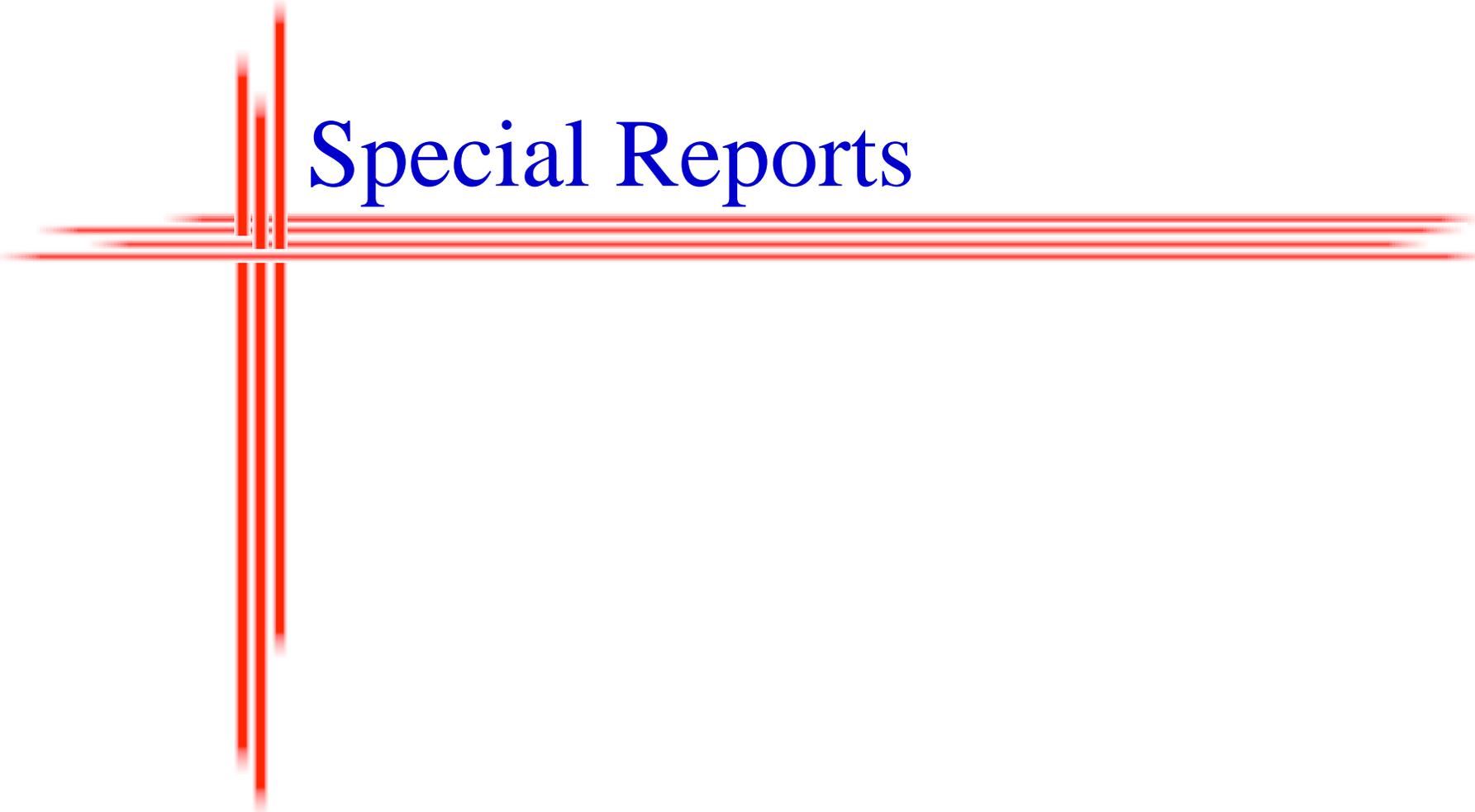


OE ENERGY MARKET SNAPSHOT

Western States Version – November 2011 Data

Office of Enforcement
Federal Energy Regulatory Commission
December 2011

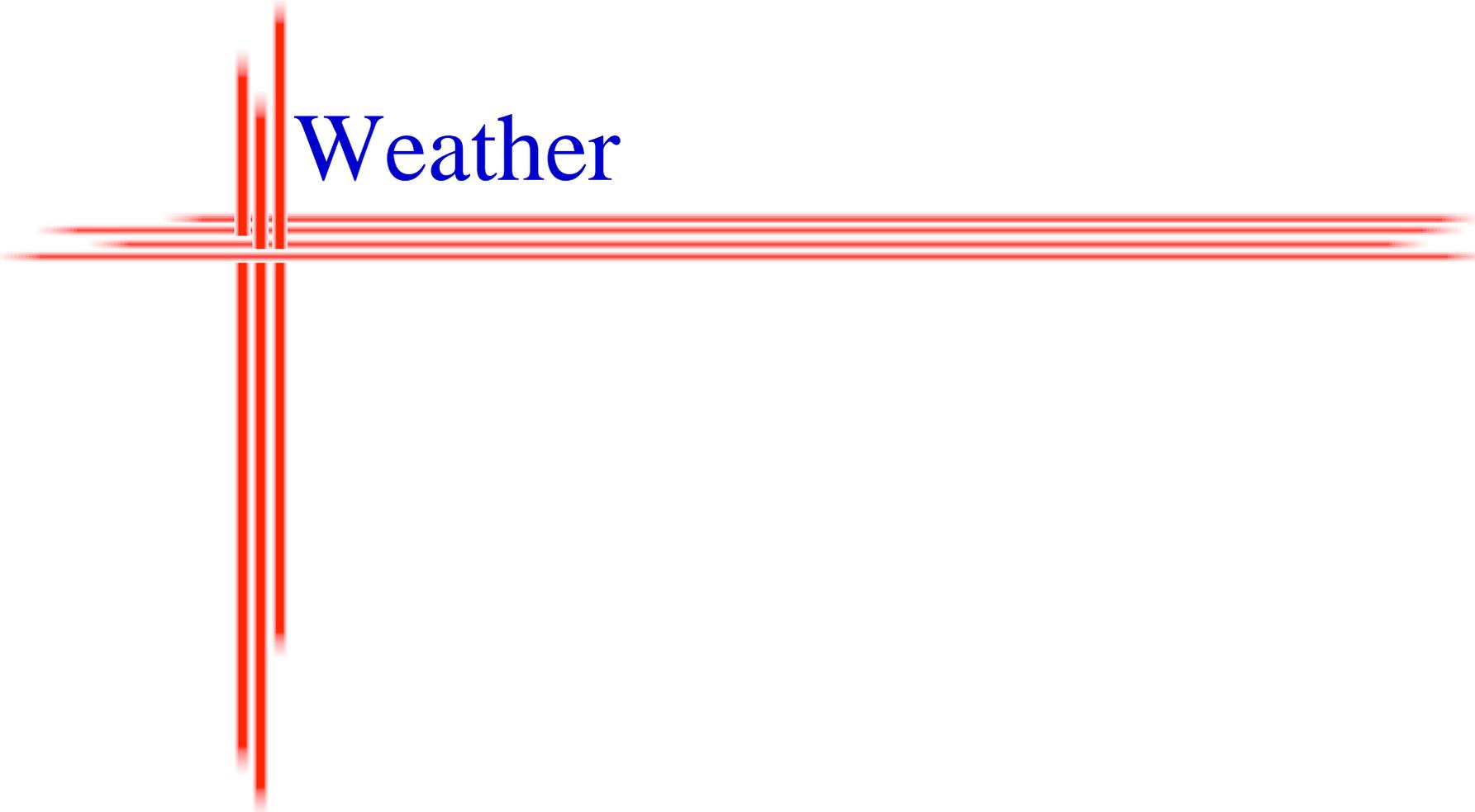


Special Reports

2011 Report on Enforcement

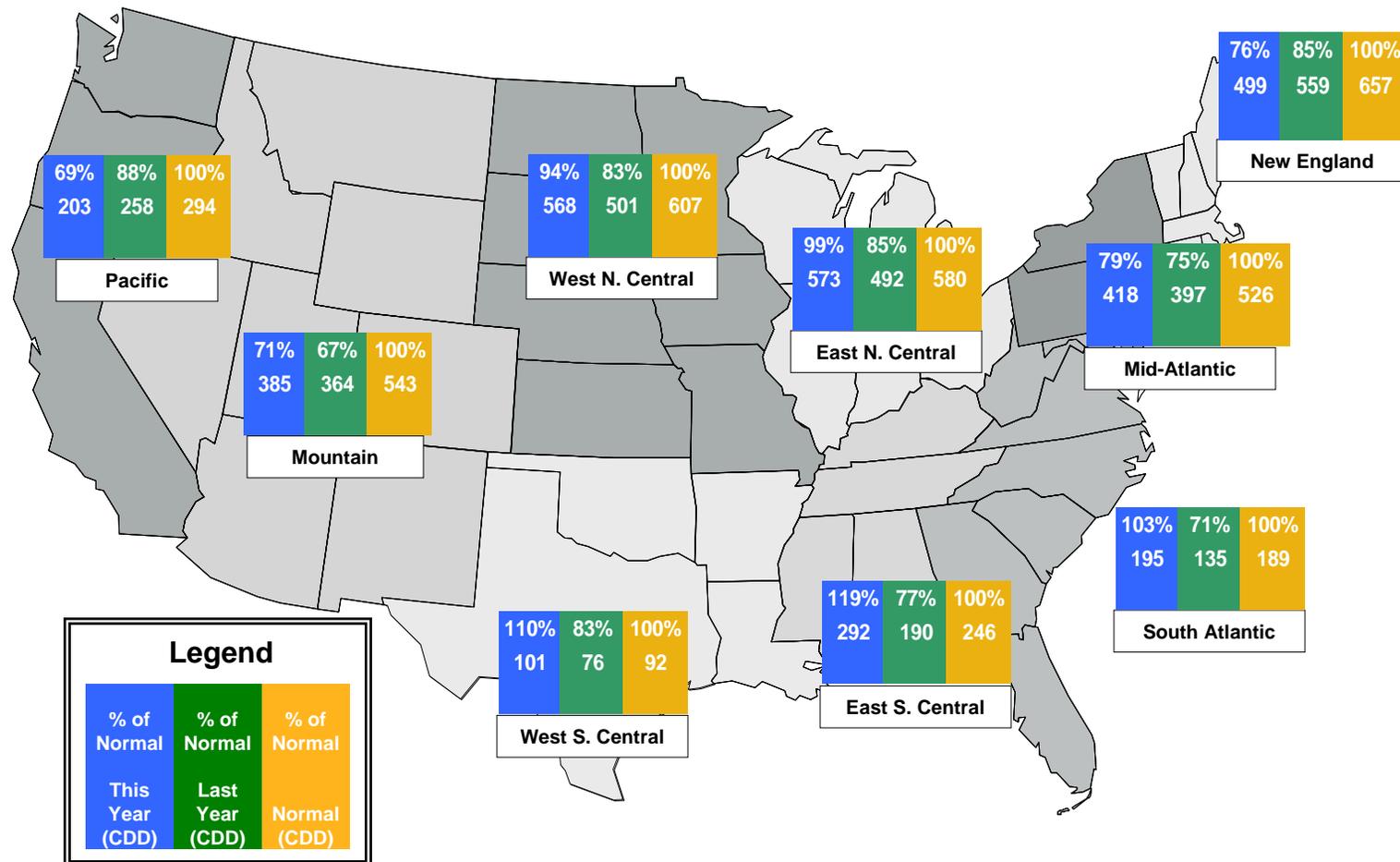
Click below for a copy of the report:

<http://www.ferc.gov/legal/staff-reports/11-17-11-enforcement.pdf>



Weather

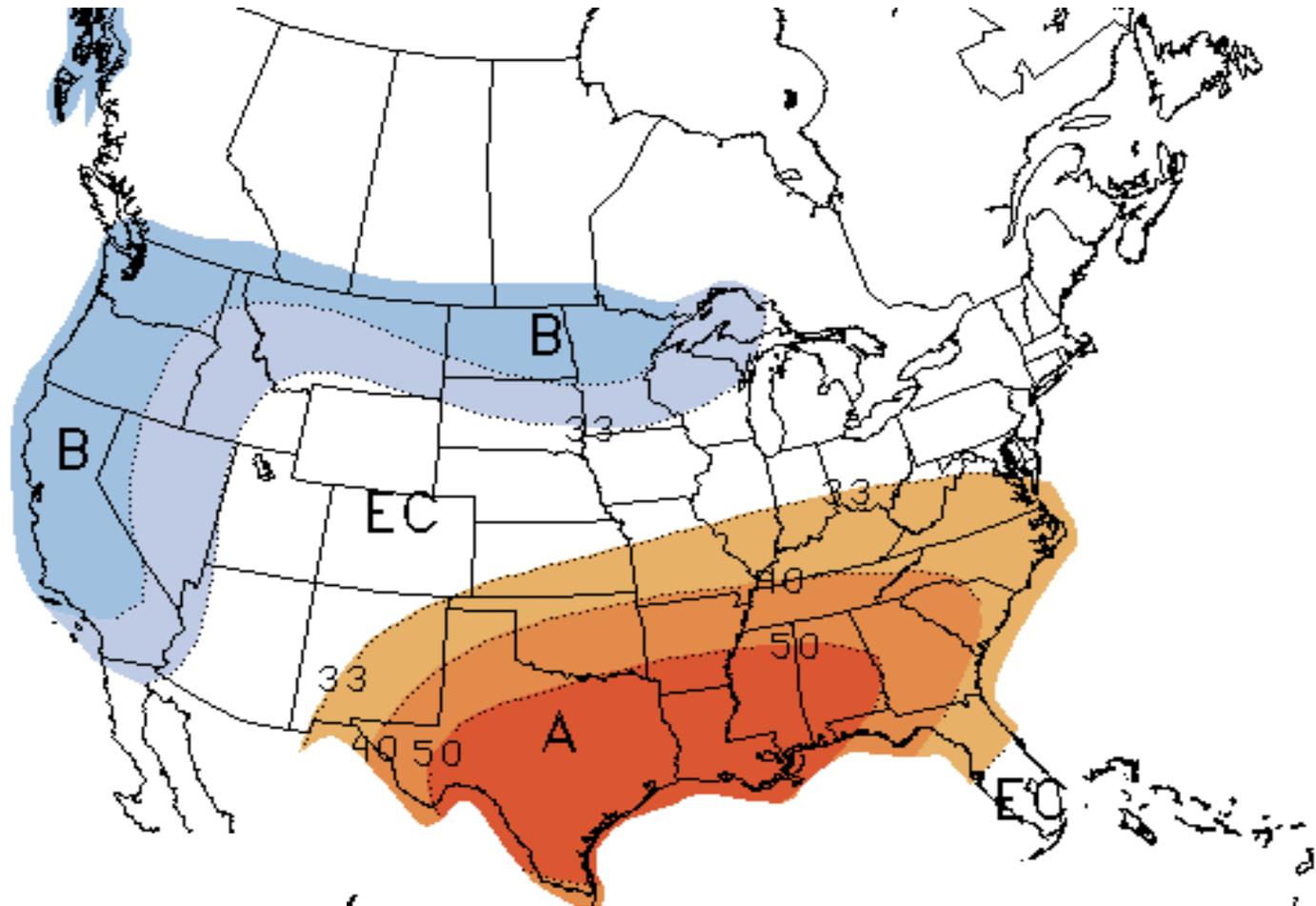
Regional Heating Degree Days – Year to Date November 2011



Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.

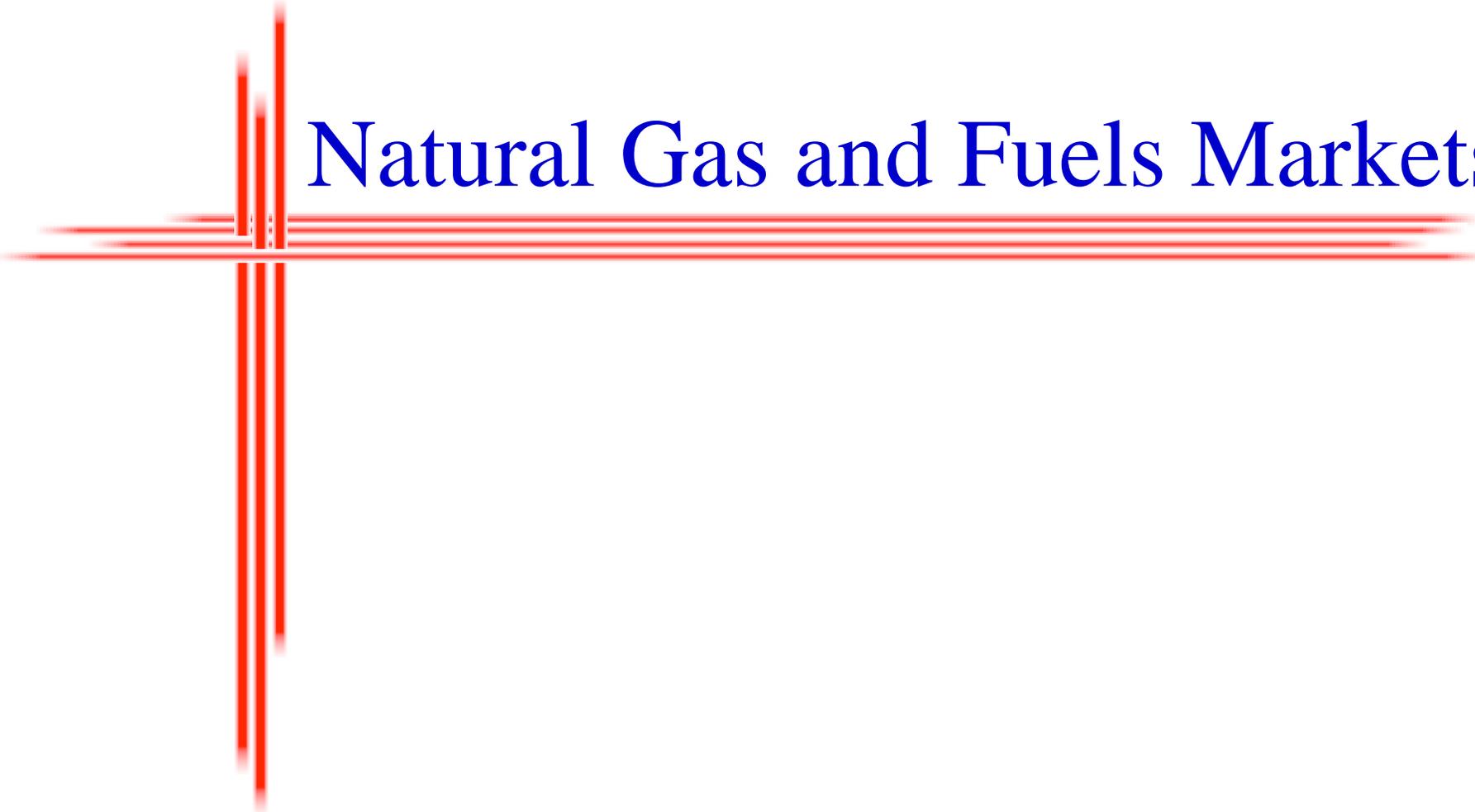
Updated December 2, 2011

NOAA's 3 Month Temperature Forecast Made November 11, 2011, Valid for December 2011 – February 2012



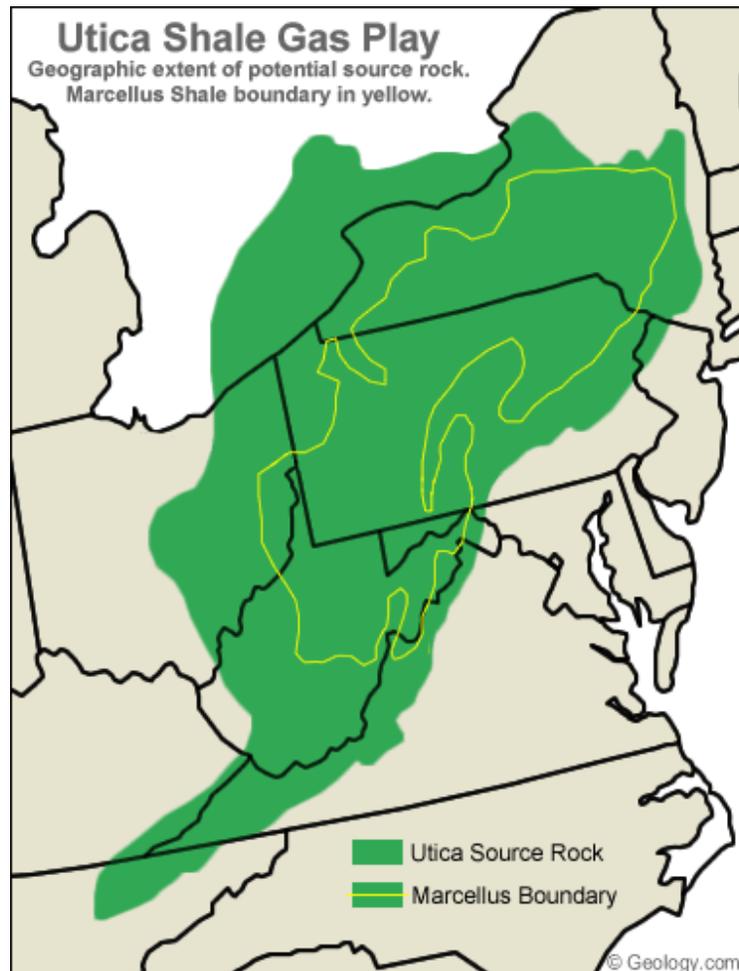
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.
Source: Derived from NOAA data.

Updated: December 02, 2011

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 Fuels Markets

Utica Shale Attracts Attention



- Up to 14,000' below the surface
- Ranges in thickness from 100' to 500'
- Little public information is available – not thoroughly evaluated
- Ohio DNR estimates 12.3 billion barrels of oil and 20 Tcf of natural gas ultimately recoverable
- Eastern Ohio portion believed to be oil and NGL rich
- Experienced shale gas producers very active – Chesapeake, Devon, Chevron
- EIA recently reported Ohio issued 42 drilling permits for horizontal wells in the first 9 months of 2011 – only 2 were issued in the first 9 months of 2010

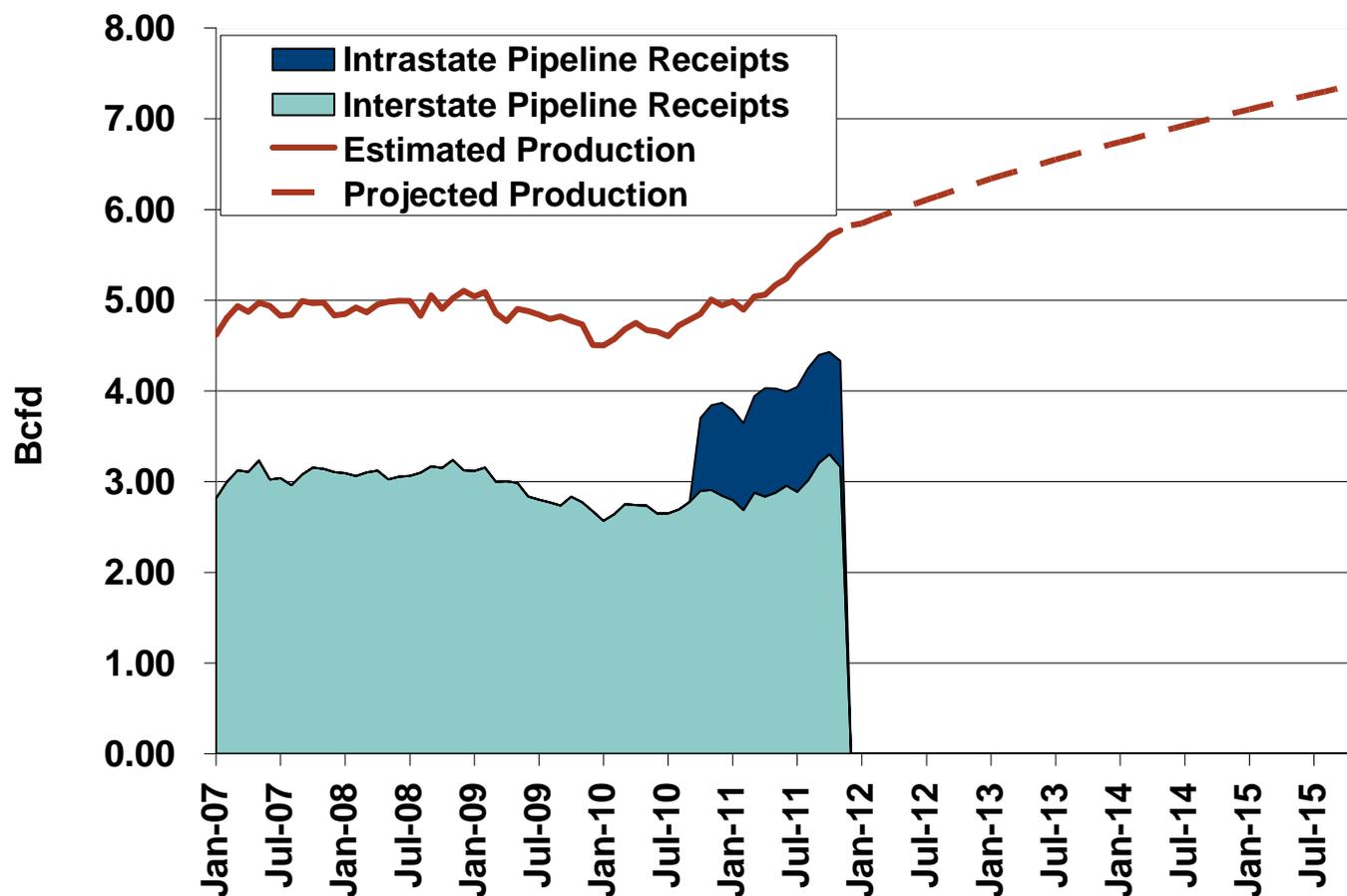
Source: Derived from Geology.com.

Updated December 6, 2011

Cheniere reaches capacity target for financing Sabine Pass LNG exports

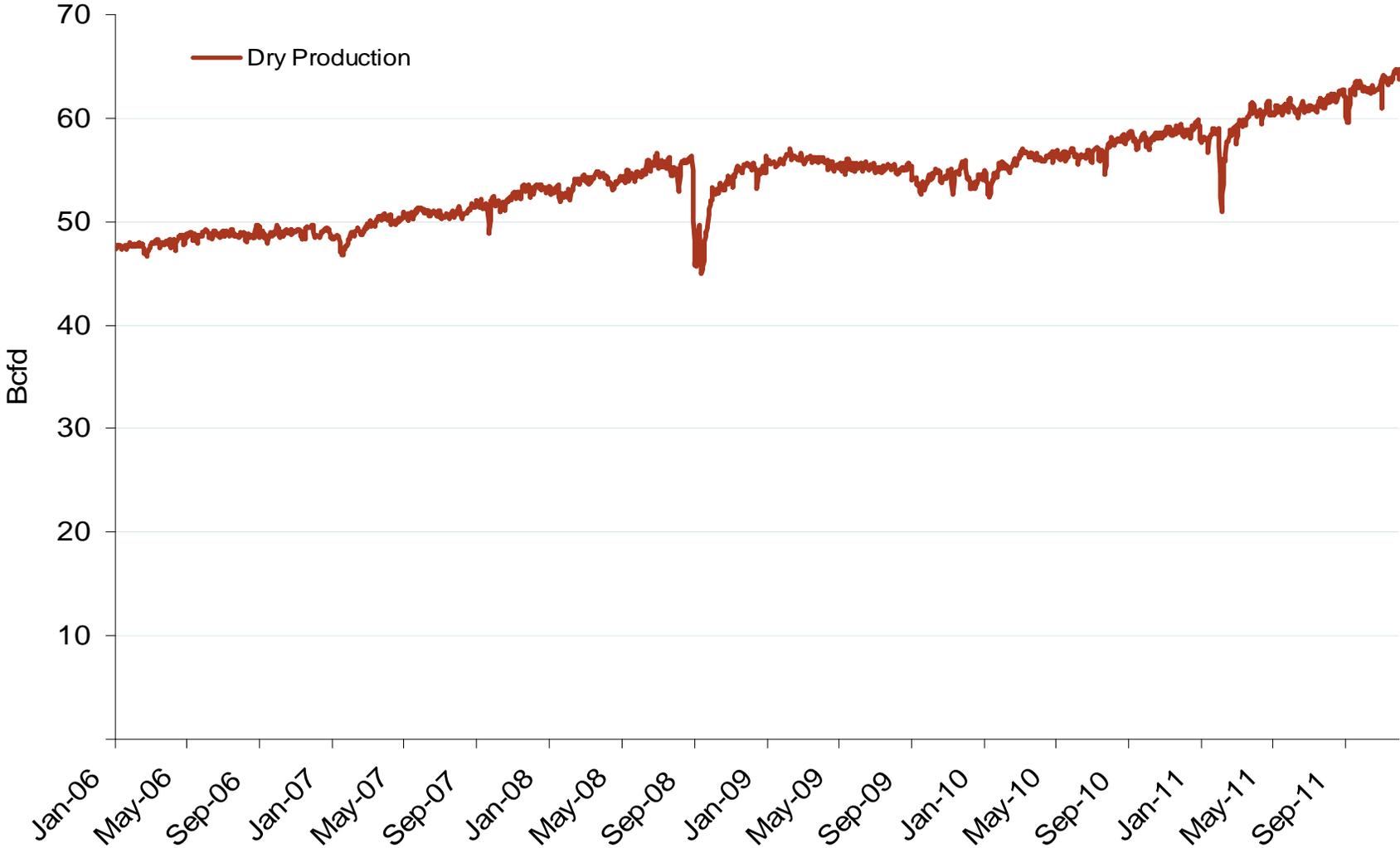
	Cheniere LNG Export Deals	
	BG	Gas Natural
Contracted Capacity	460 MMcfd	460 MMcfd
Contract Term	20 yrs	20 yrs
Reservation Fee	\$2.25/MMBtu	\$2.49/MMBtu
Gas Price	100% of HH	100% of HH
Gas Price for Liquefaction	15% of HH	15% of HH

Newly Observed Intrastate Pipe Flows Show Anadarko Gas Production Hike



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Monthly U.S. Dry Gas Production – Lower 48 States



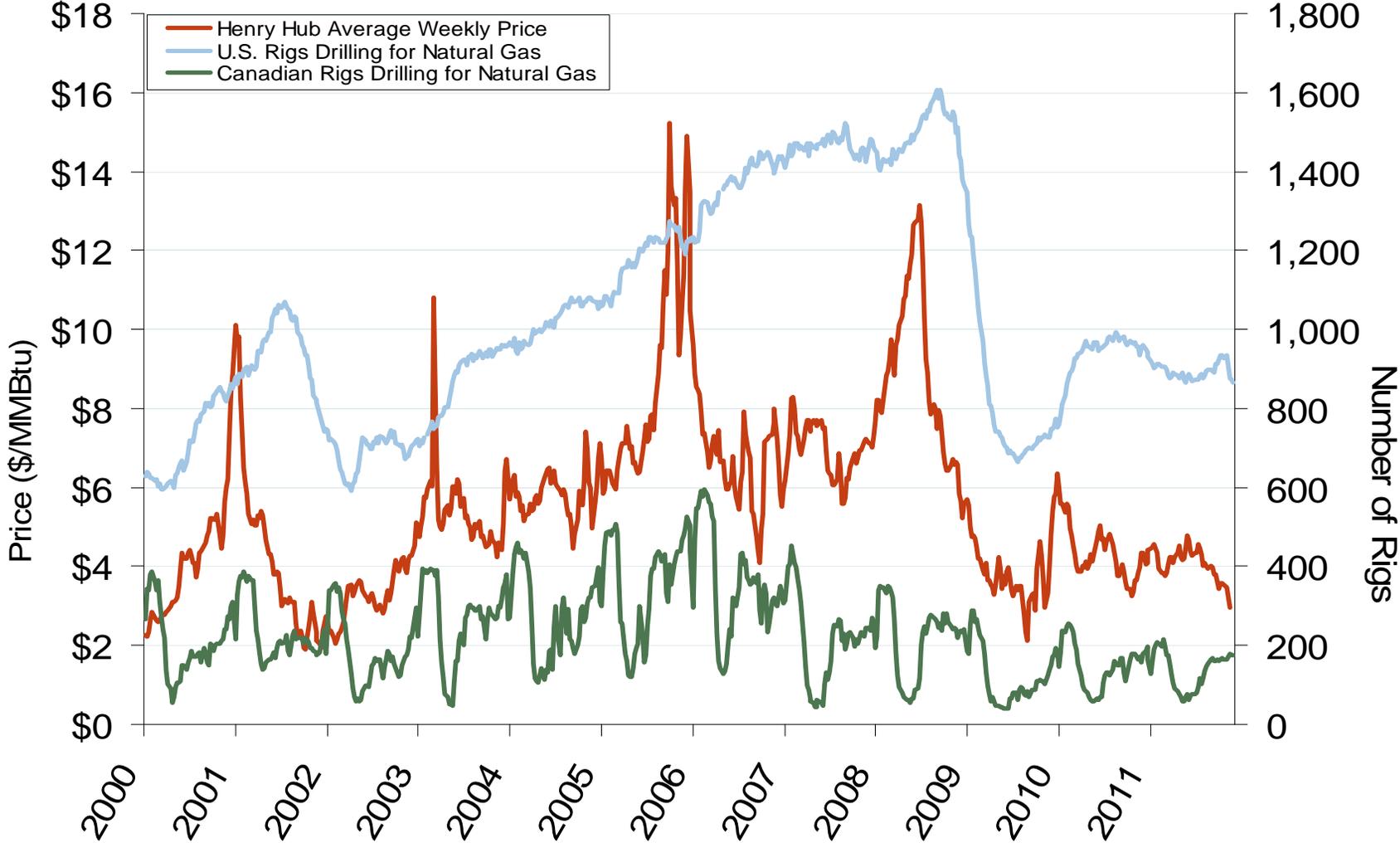
Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek Energy data

Source: Derived from Bentek Energy data

December 2011 Western Snapshot

Updated: December 02, 2011

U.S. and Canadian NG Drilling Rig Count and Daily Spot Prices



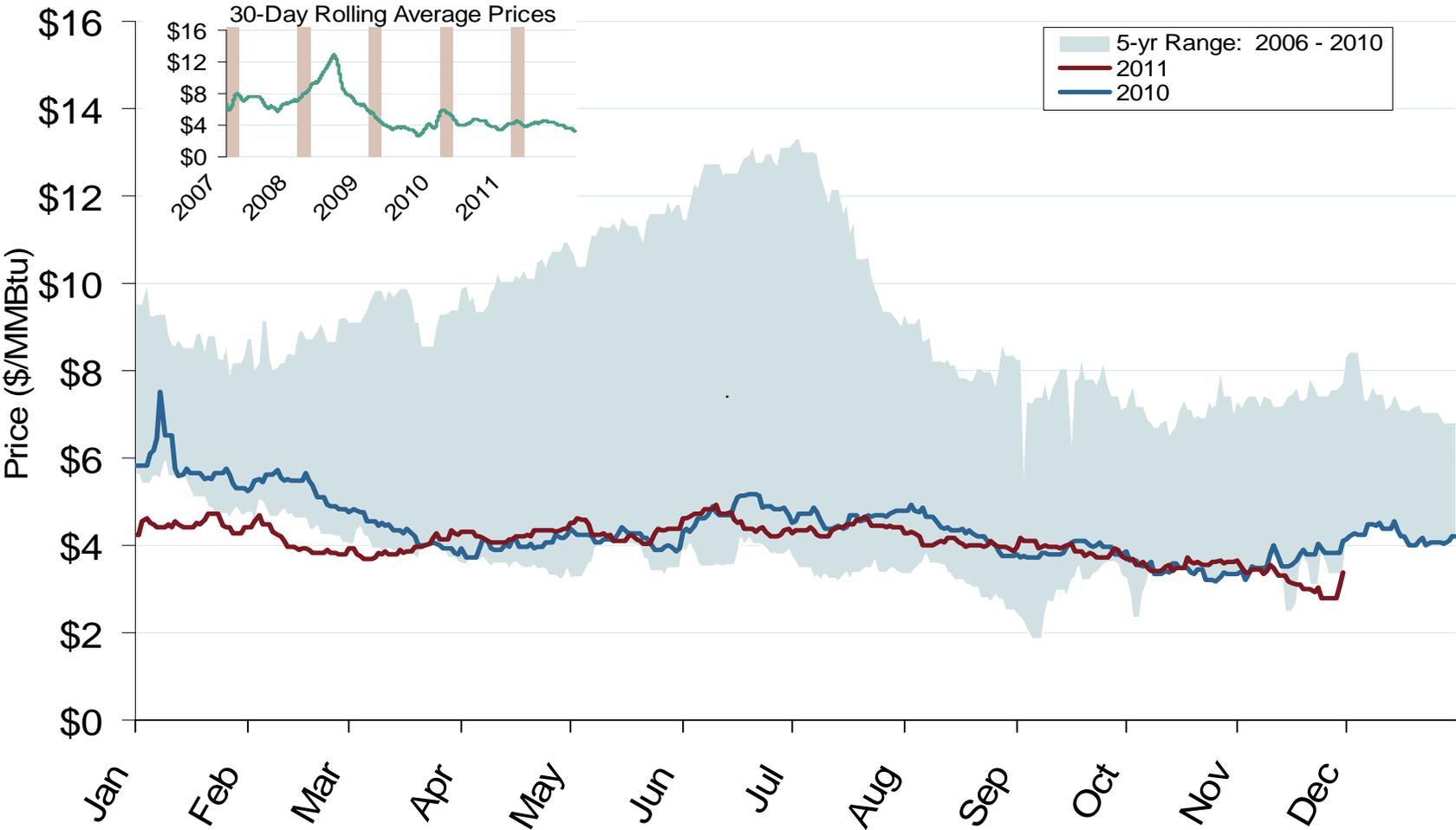
Source: Derived from *Platts* and *Baker Hughes* data
December 2011 Western Snapshot

Updated: December 01, 2011

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

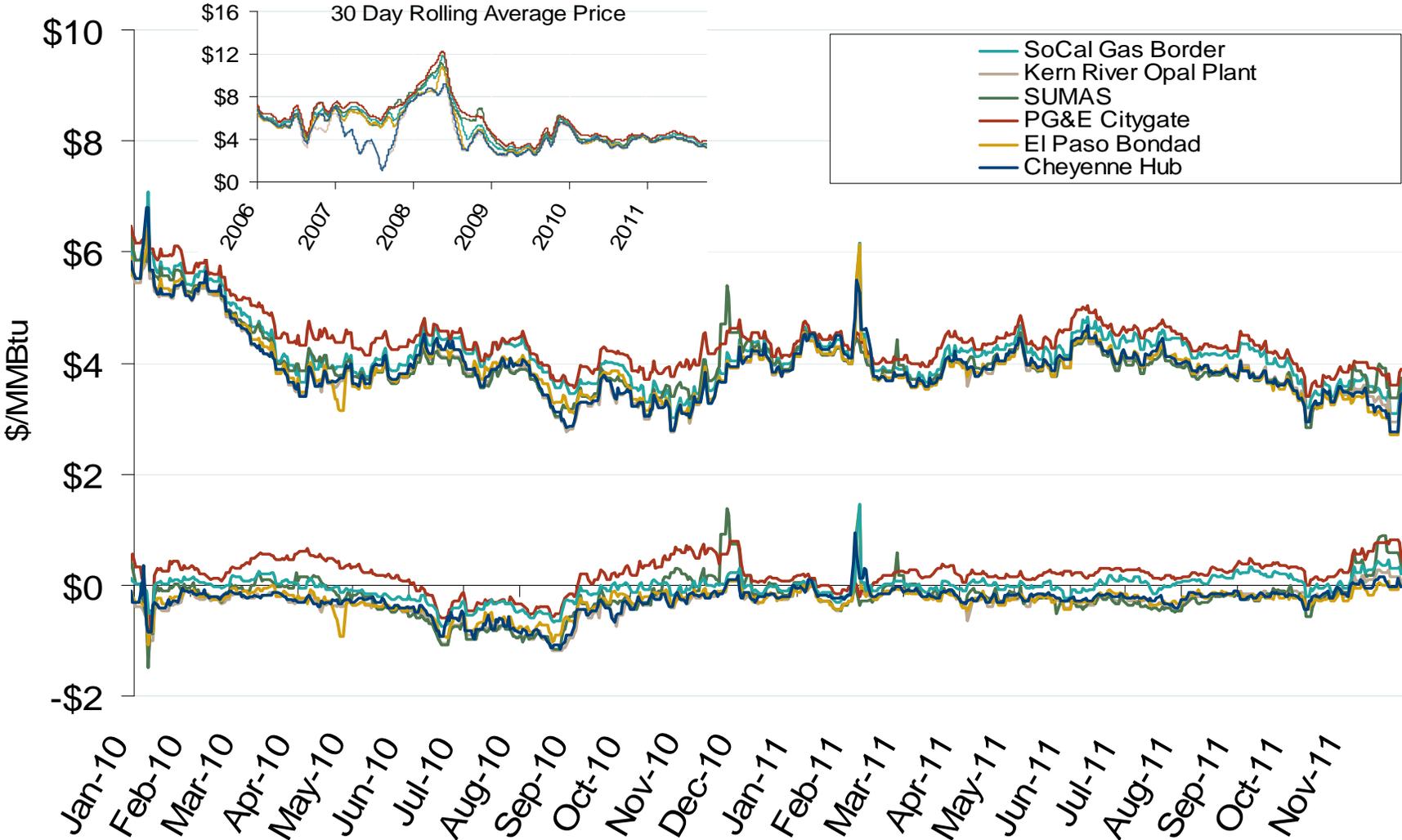
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Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data
December 2011 Western Snapshot

Western Day-Ahead Hub Spot Prices and Basis

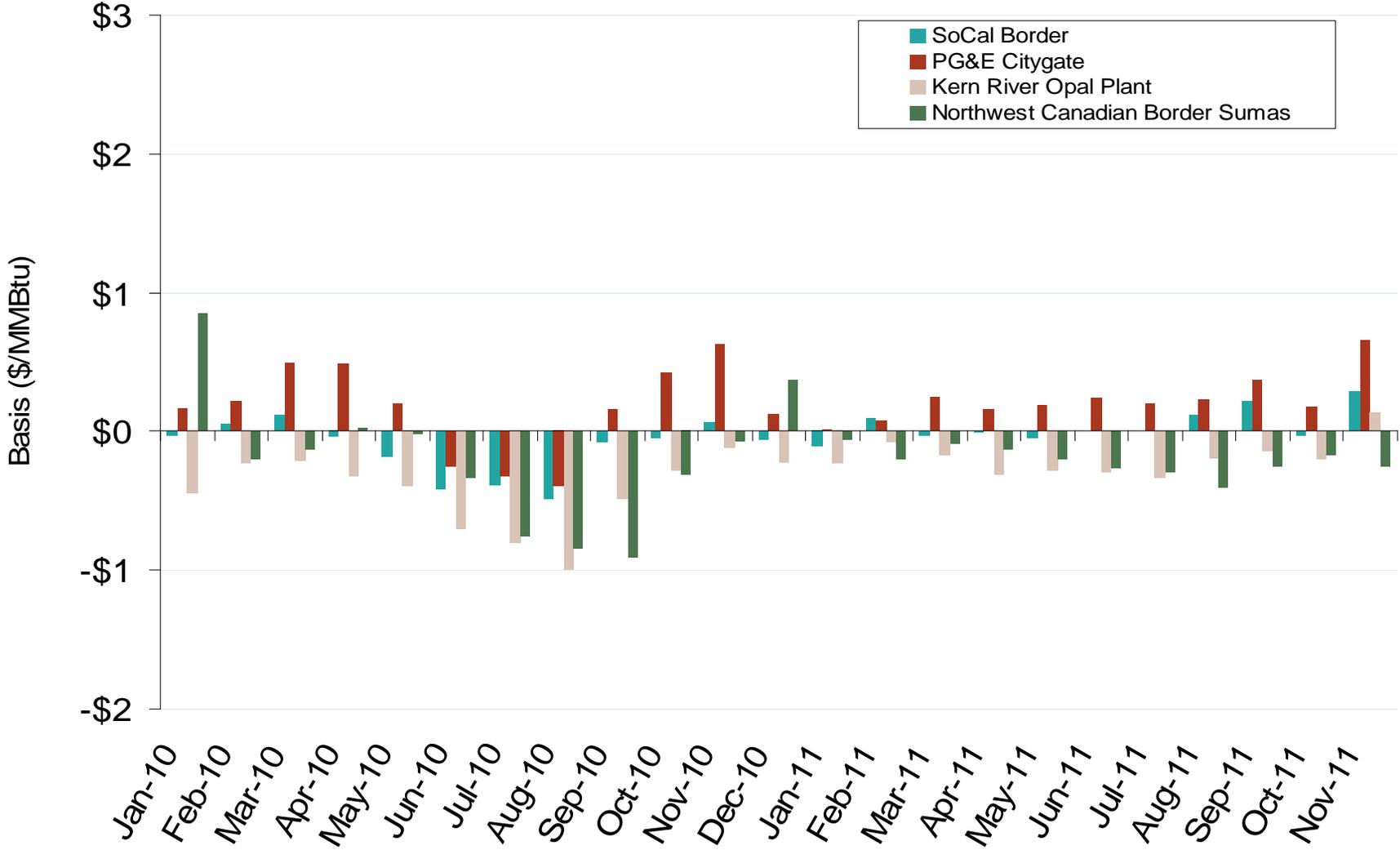


Source: Derived from Platts data
December 2011 Western Snapshot

Updated: December 01, 2011

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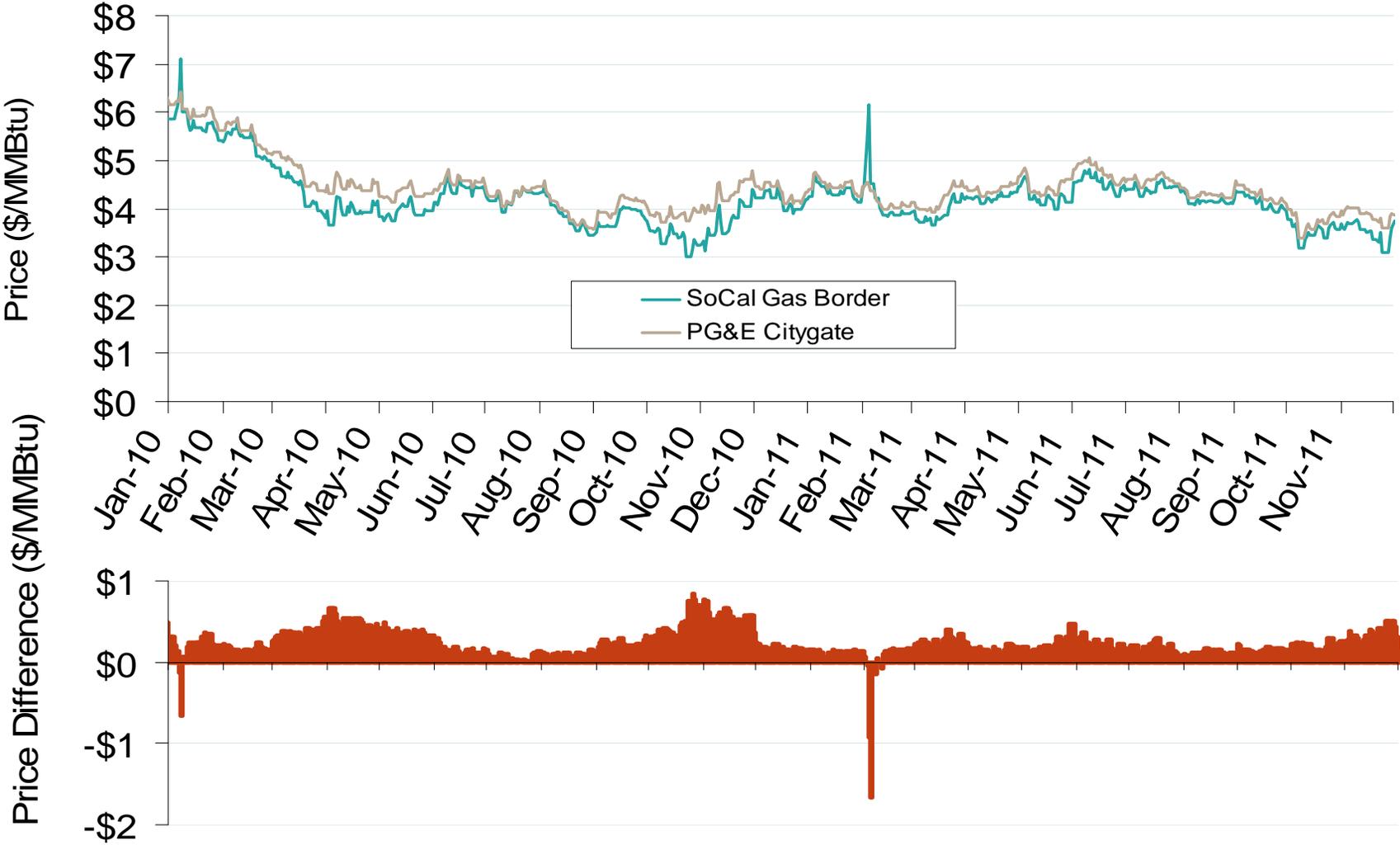
Western Monthly Average Basis Value to Henry Hub



Source: Derived from Platts data
December 2011 Western Snapshot

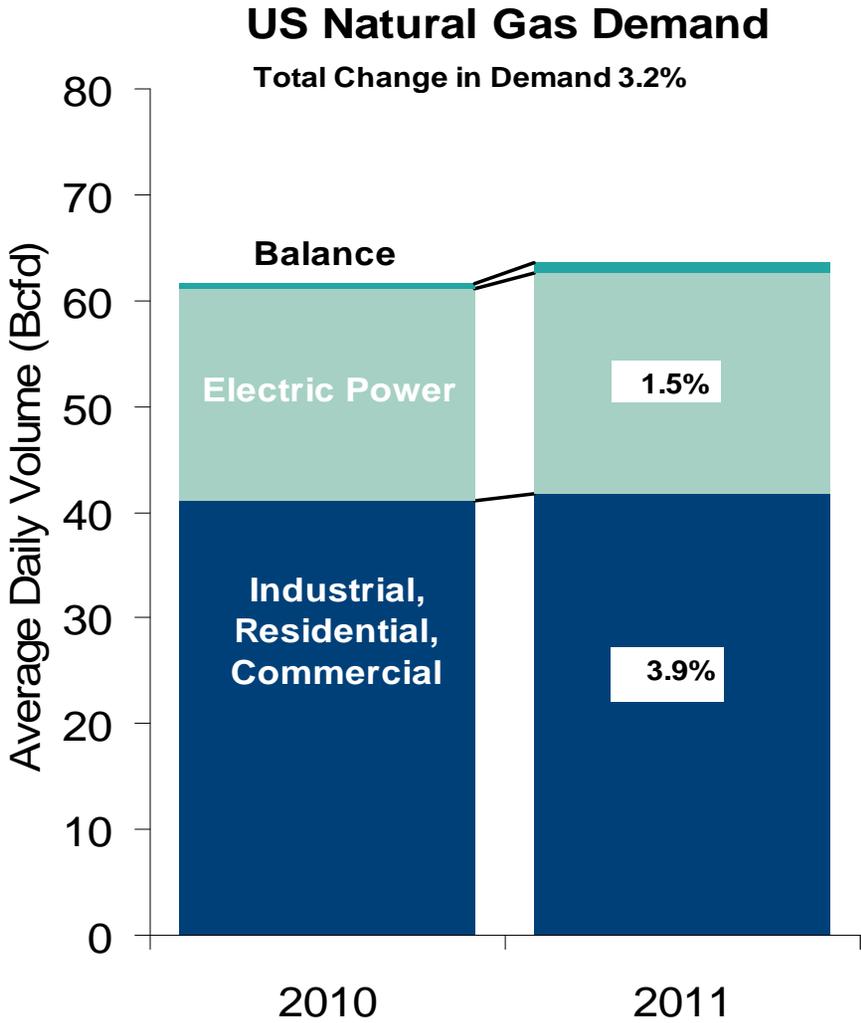
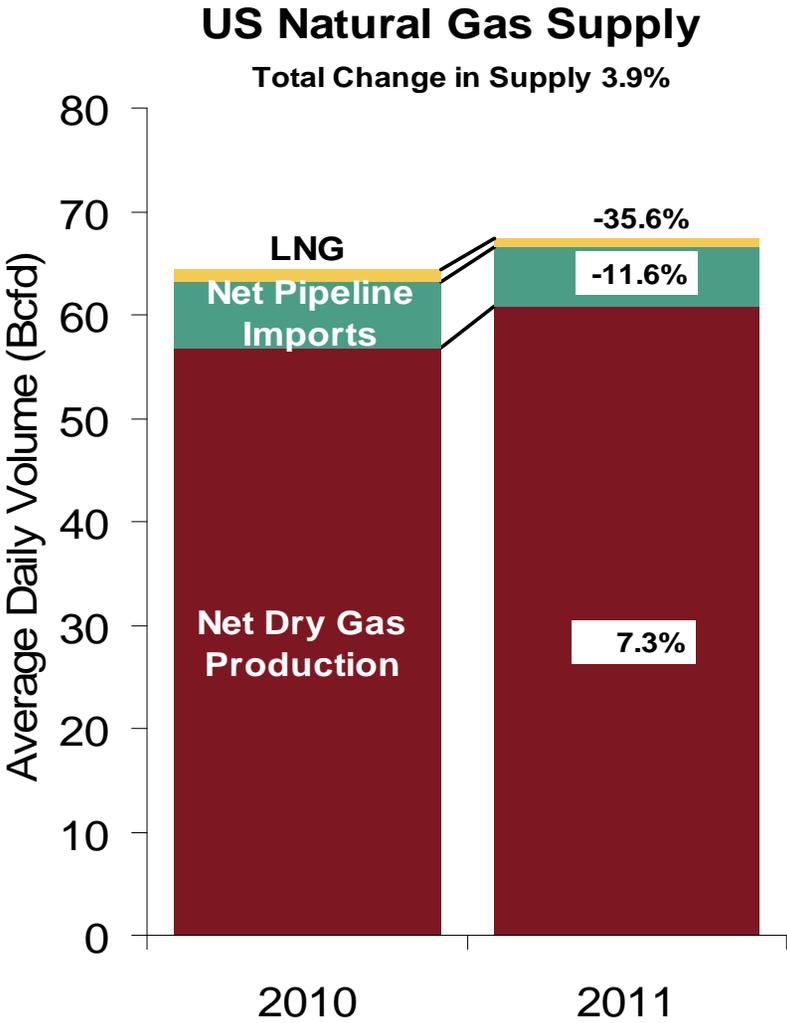
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Difference in Northern and Southern California Daily Spot Prices



Source: Derived from *Platts* data
December 2011 Western Snapshot

U.S. NG Supply and Demand 2010 vs. 2011: January - November

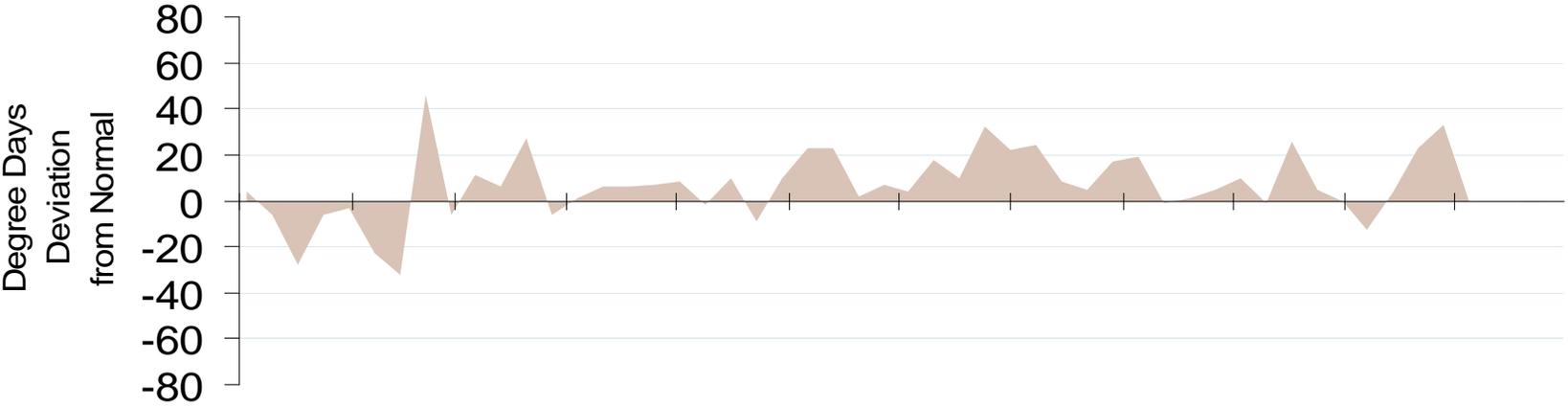
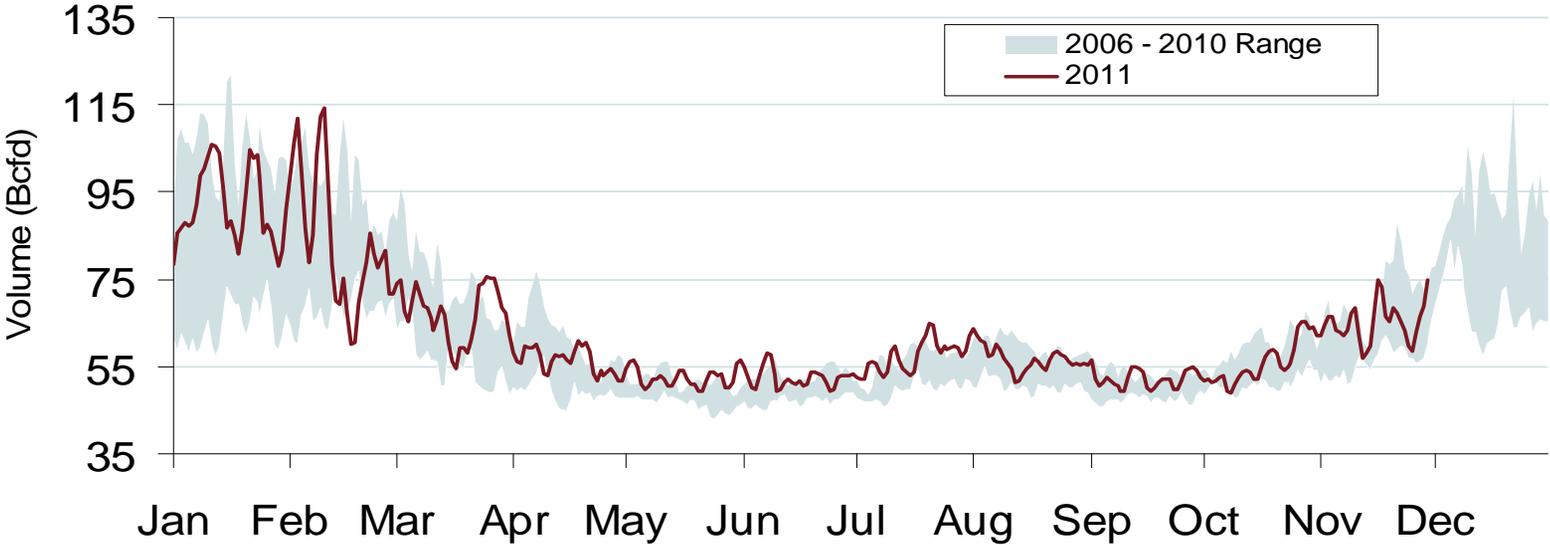


Note: Balance includes all amounts not attributable to other categories.

Source: Derived from Bentek Energy data

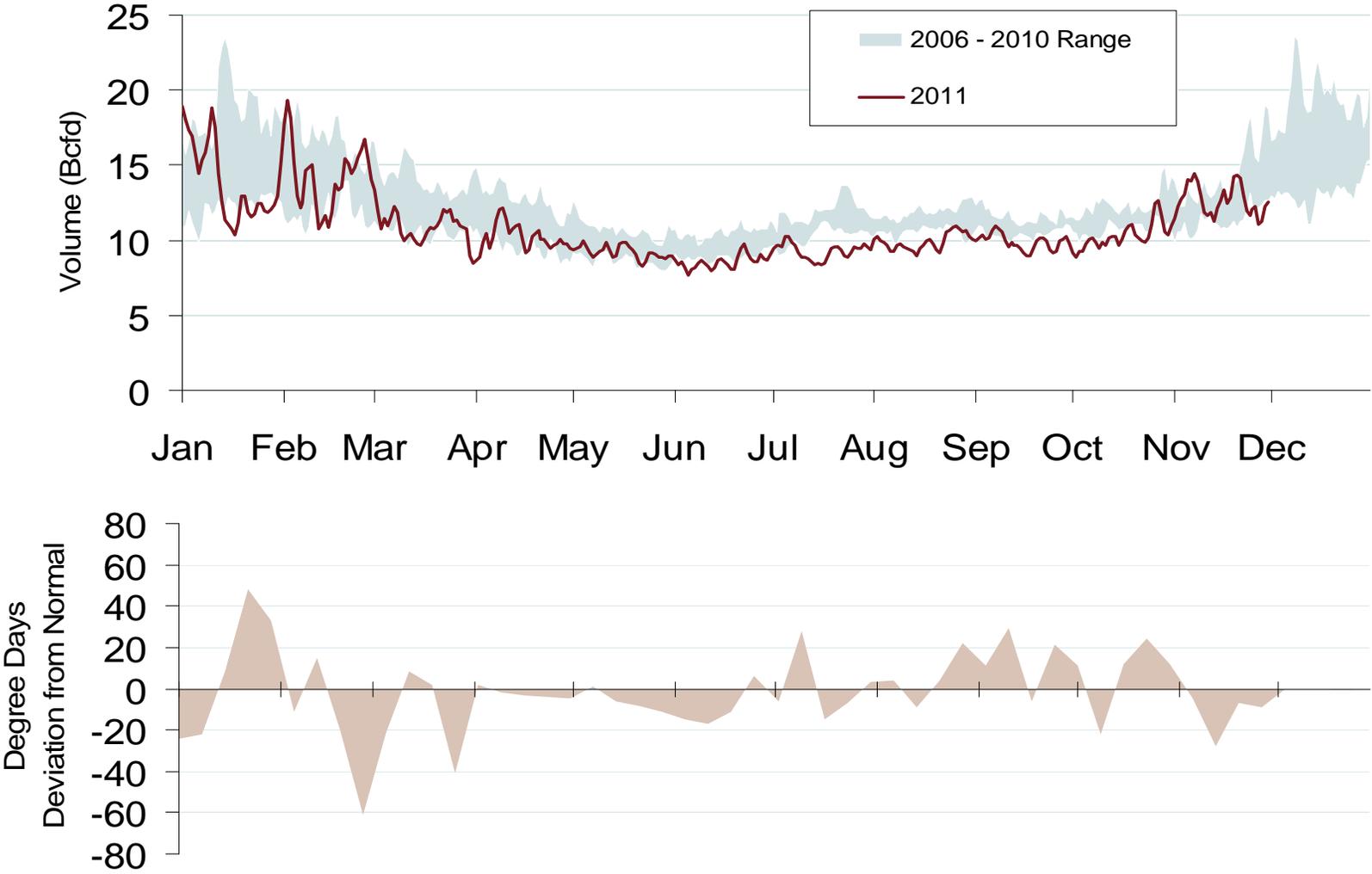
December 2011 Western Snapshot

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



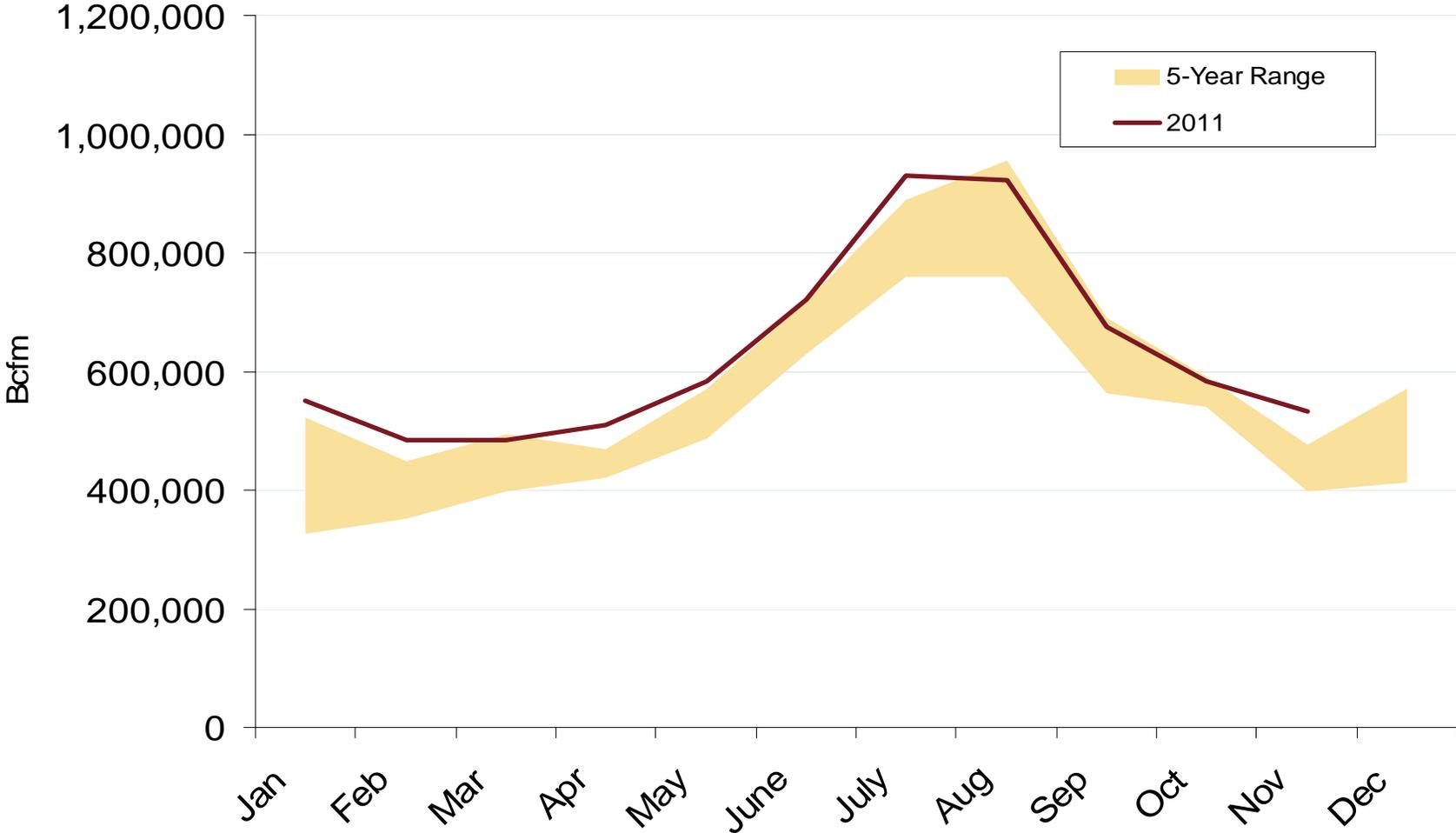
Source: Derived from *Bentek Energy* and *Weekly NOAA* data
December 2011 Western Snapshot

Daily Western Natural Gas Demand - All Sectors



Source: Derived from *Bentek Energy* and Weekly NOAA data
December 2011 Western Snapshot

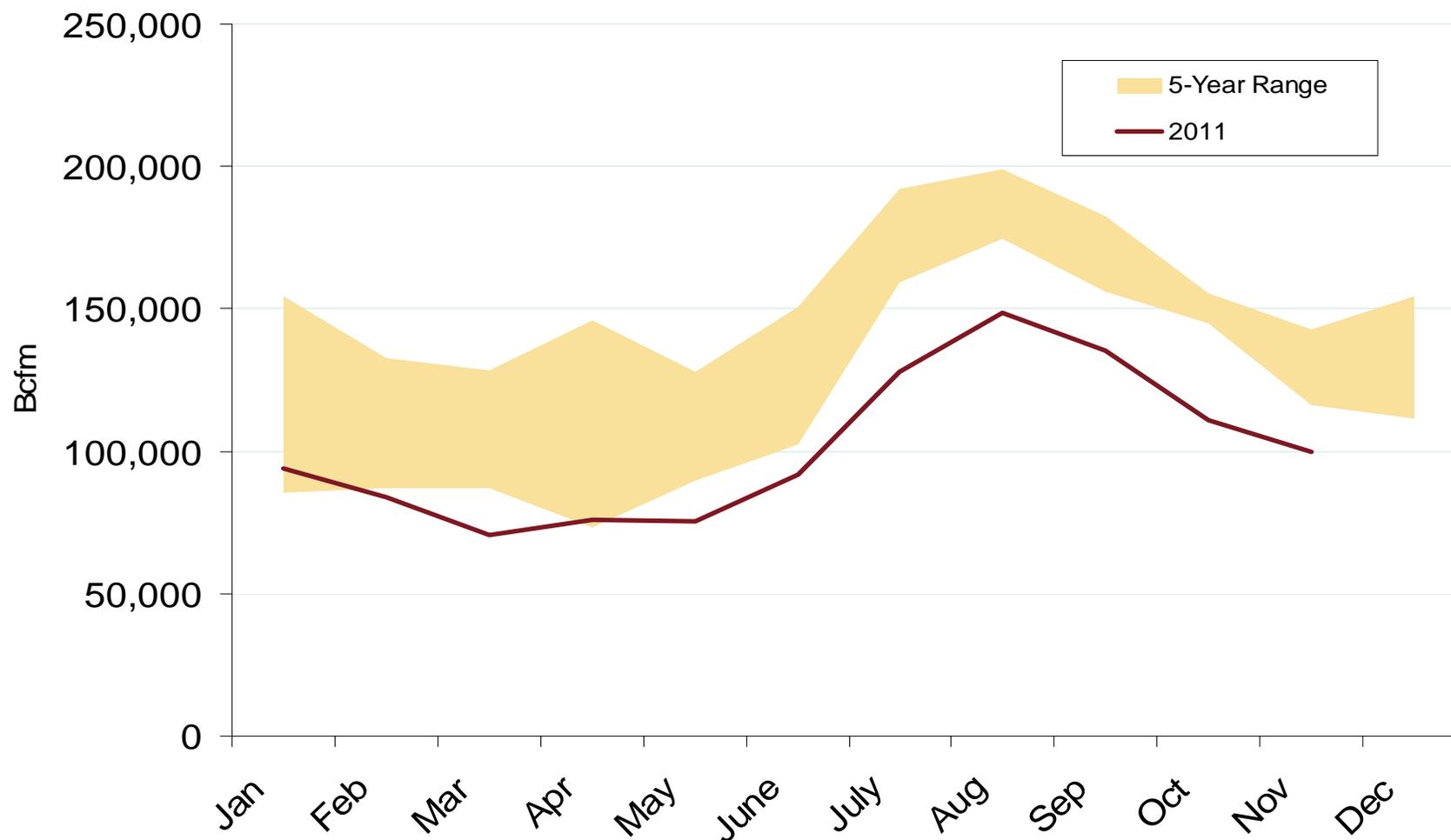
U.S. Natural Gas Consumption for Power Generation



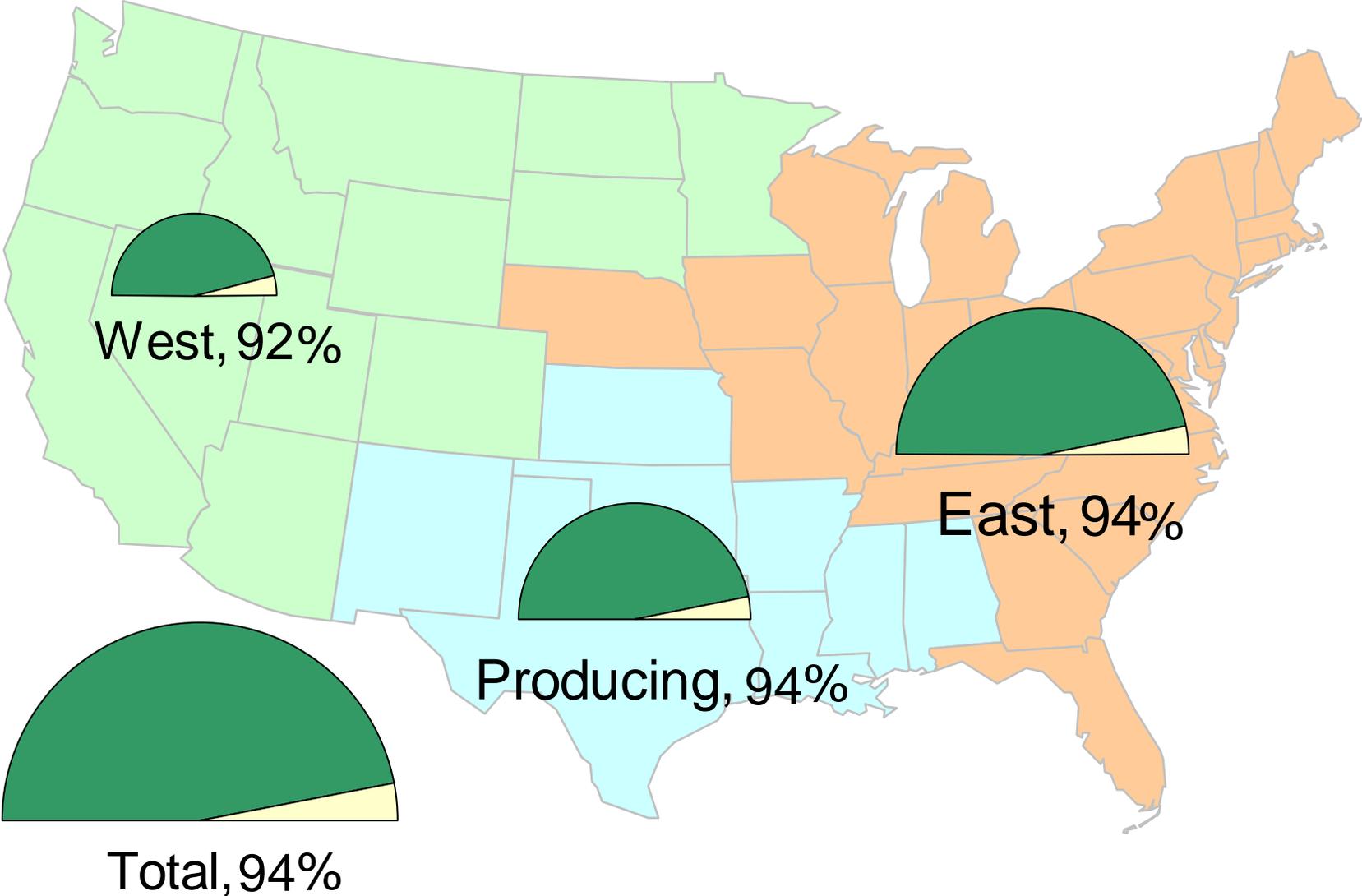
Source: Derived from *Bentek Energy* data
December 2011 Western Snapshot

Updated: December 02, 2011

Western Natural Gas Consumption for Power Generation



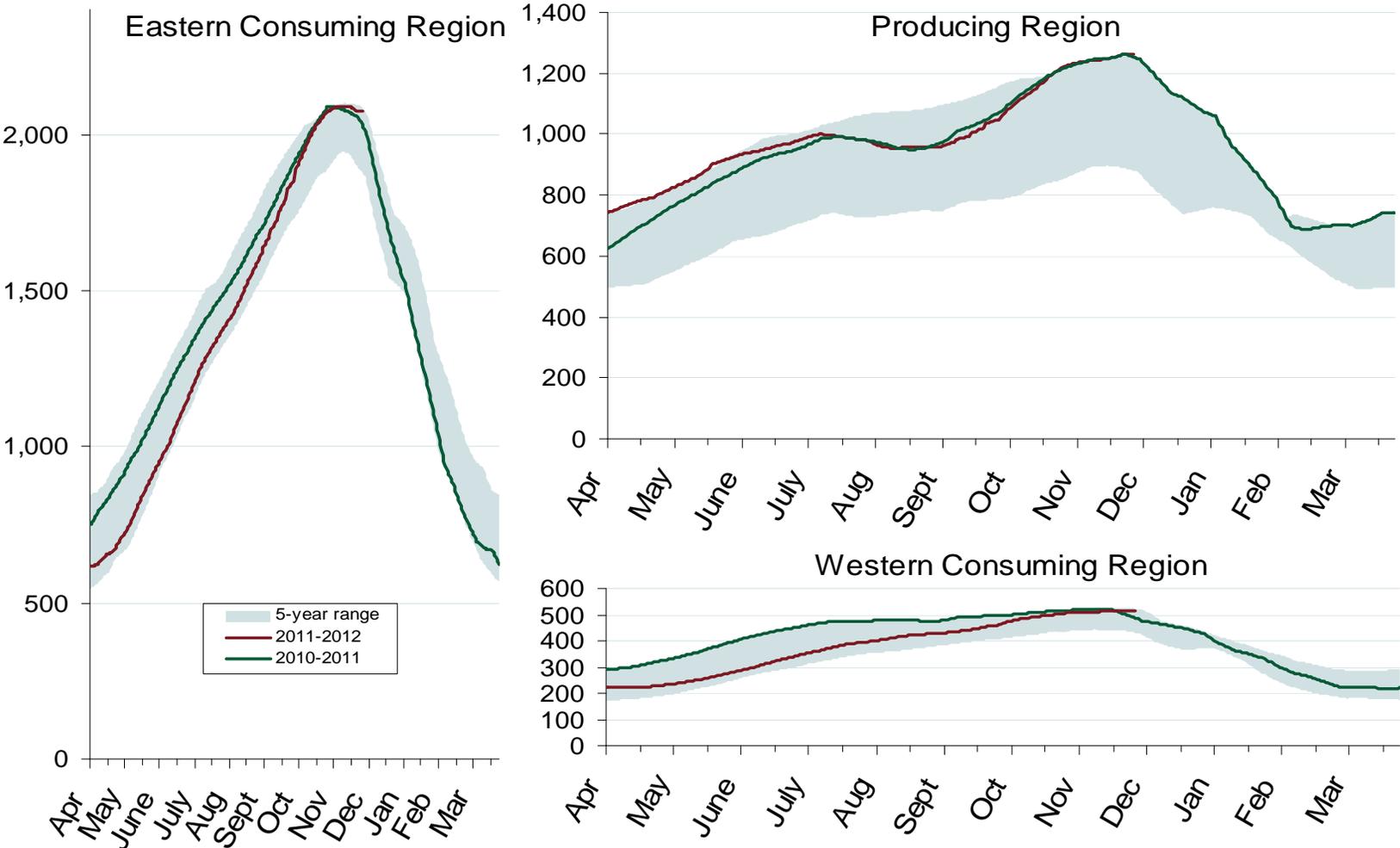
Natural Gas Storage Inventories – December 2, 2011



Source: Derived from EIA Storage and Estimated Working Gas Capacity data
December 2011 Western Snapshot

Updated December 2, 2011
20022

Regional Totals of Working Gas in Storage

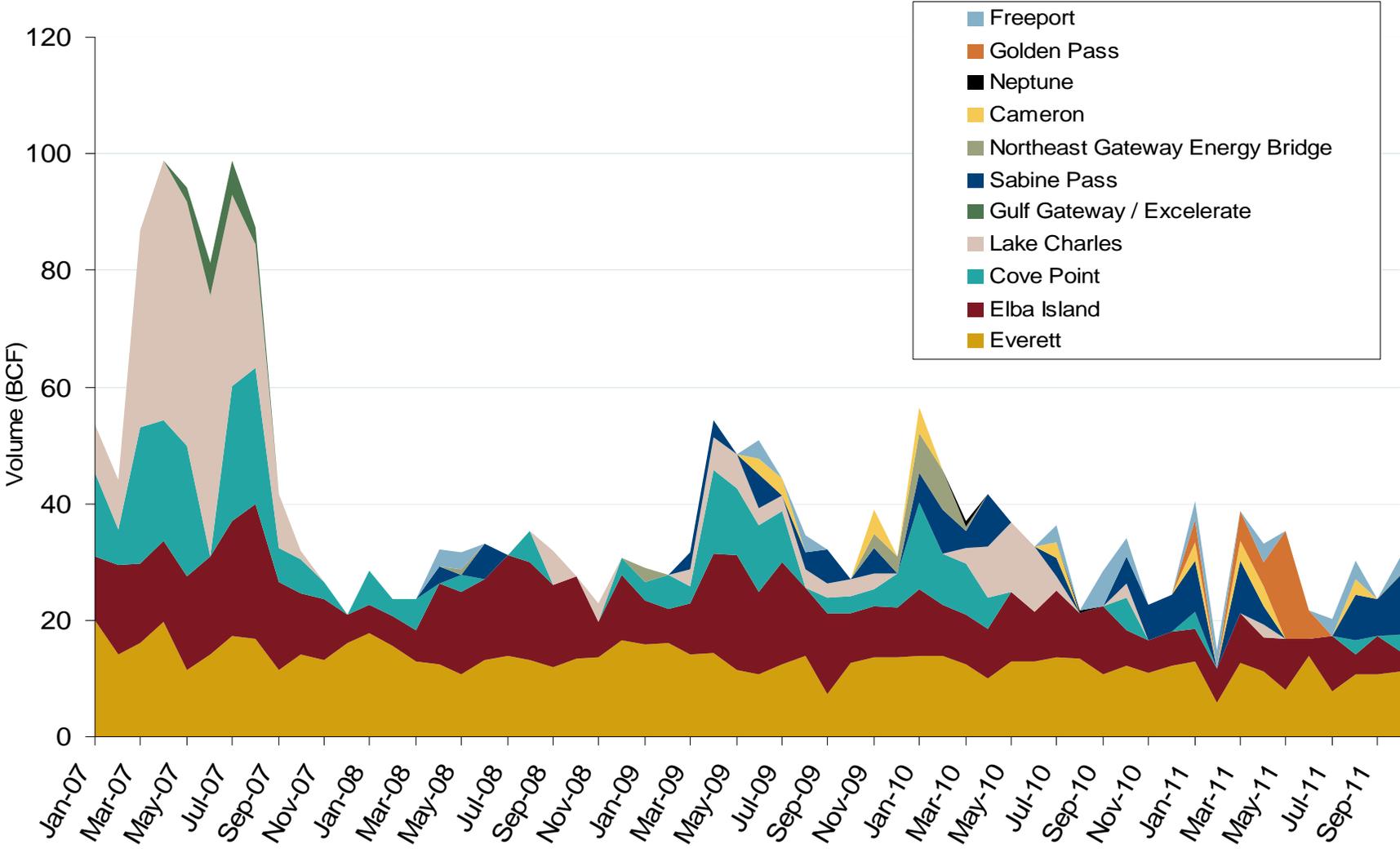


Source: Derived from EIA data
December 2011 Western Snapshot

Updated: December 02, 2011

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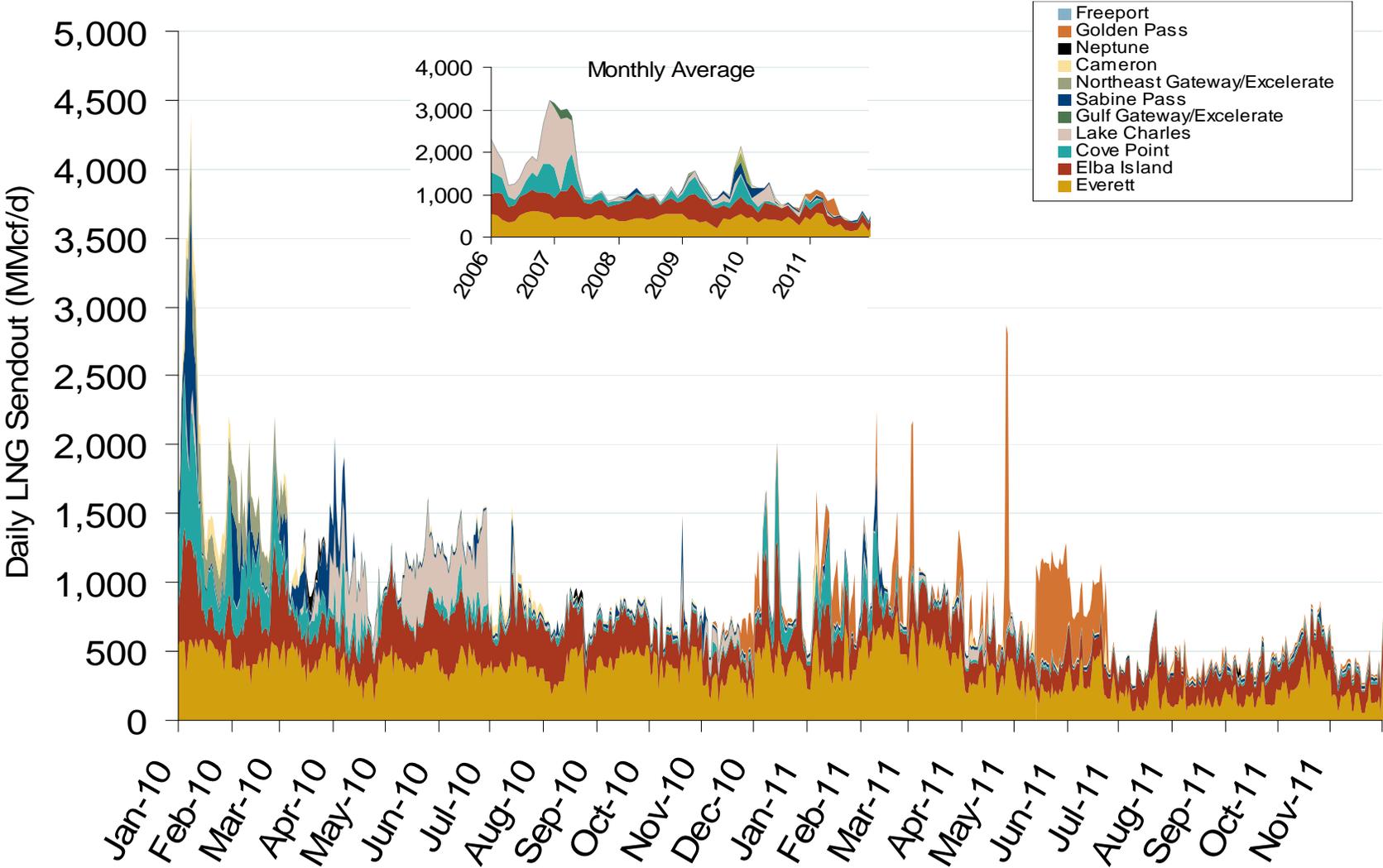
Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data
December 2011 Western Snapshot

Updated: December 02, 2011

Daily Gas Sendout from Existing U.S. LNG Facilities



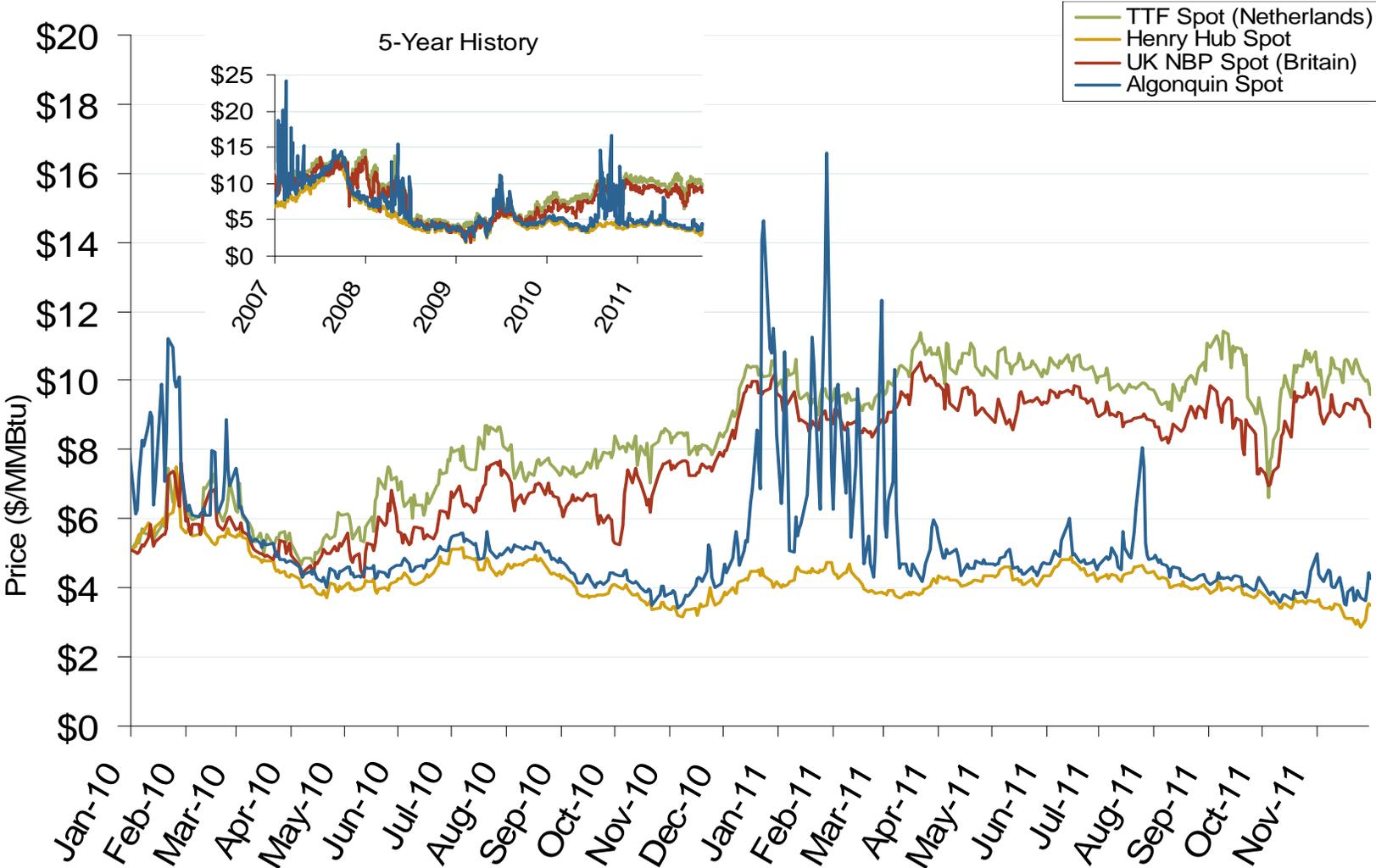
Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes Freeport LNG which flows via intrastate pipelines

Source: Derived from Bentek Energy data

World LNG Estimated January 2012 Landed Prices



Atlantic Basin European and US Spot Natural Gas Prices

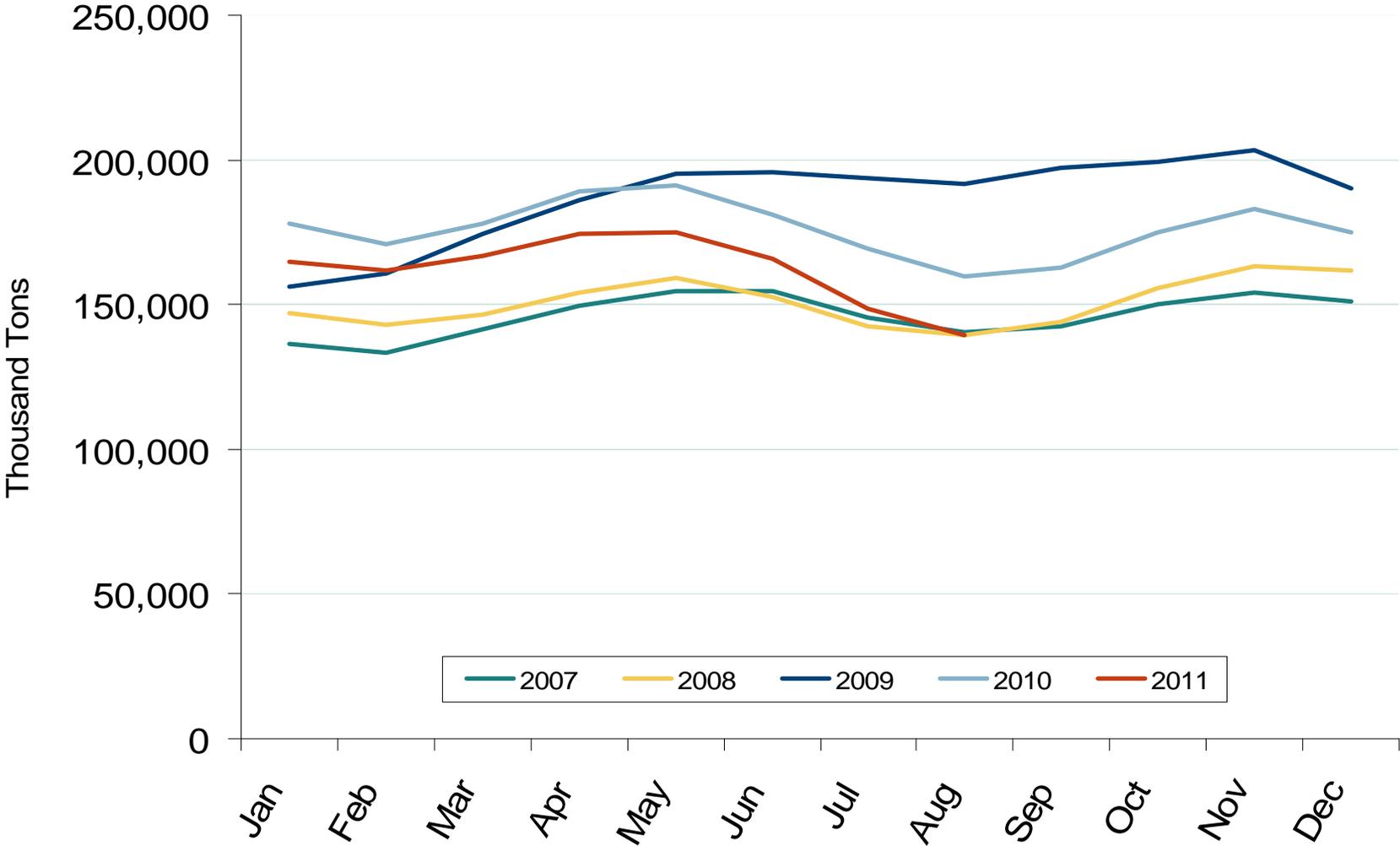


Source: Derived from *Bloomberg* and *ICE* data
December 2011 Western Snapshot

Updated: December 05, 2011

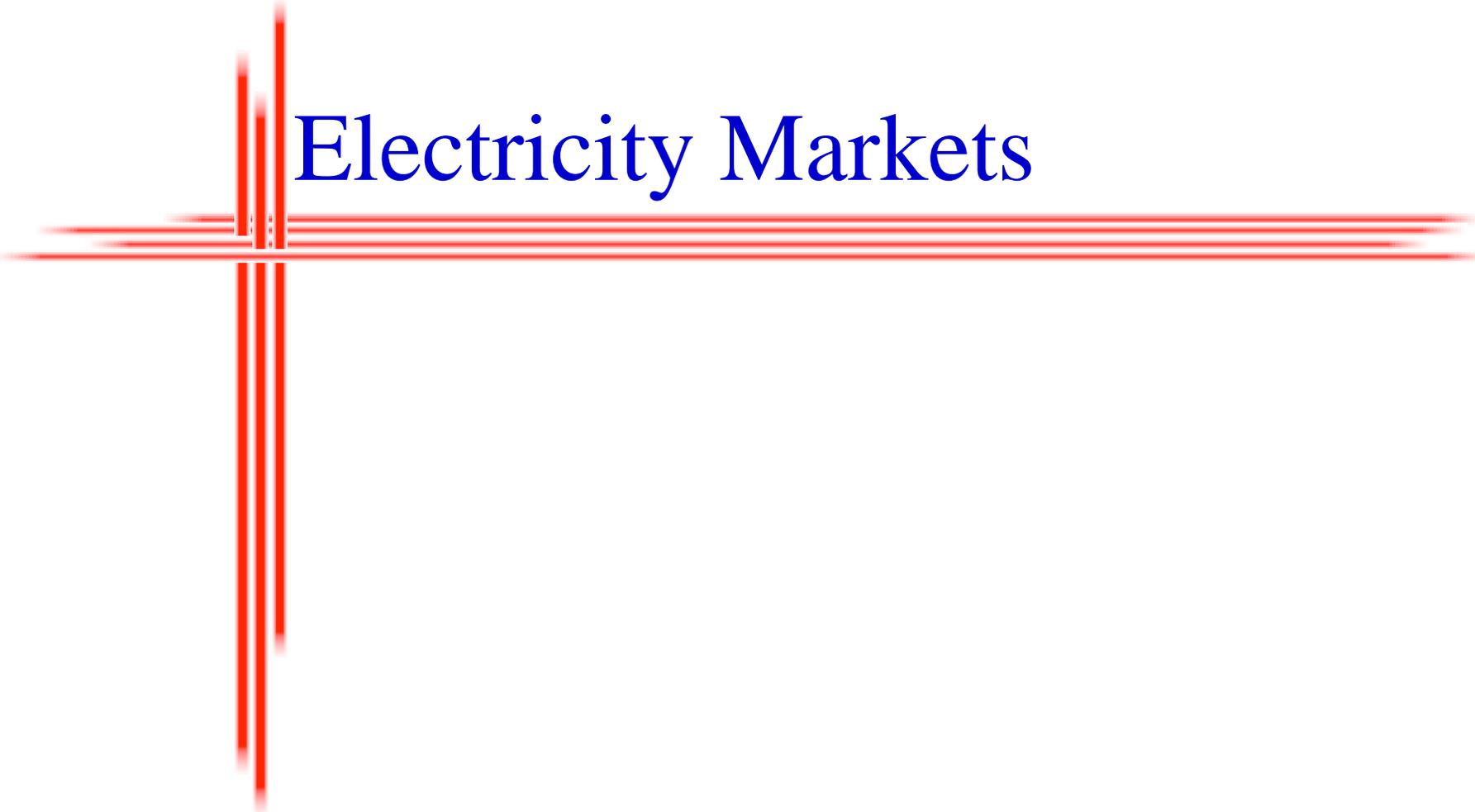
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U.S. Coal Stockpiles at Electric Power Generating Facilities



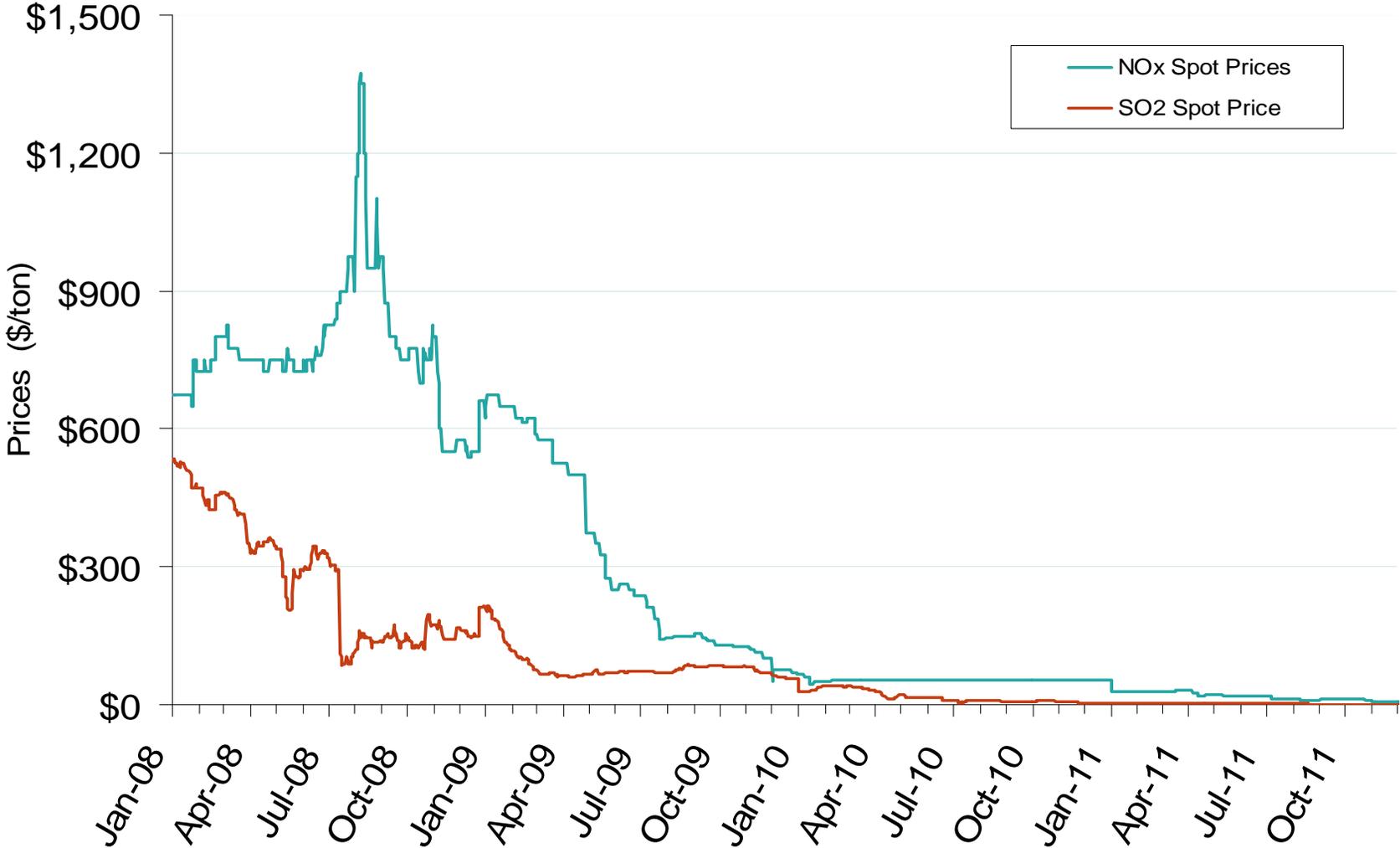
Source: Derived from EIA data. Excludes Industrial and Commercial Plants
December 2011 Western Snapshot

Updated: December 02, 2011



Electricity Markets

SO2 Allowance Spot Prices and NOx Allowance Spot Prices



Source: Derived from *Bloomberg* data
December 2011 Western Snapshot

Updated: December 05, 2011

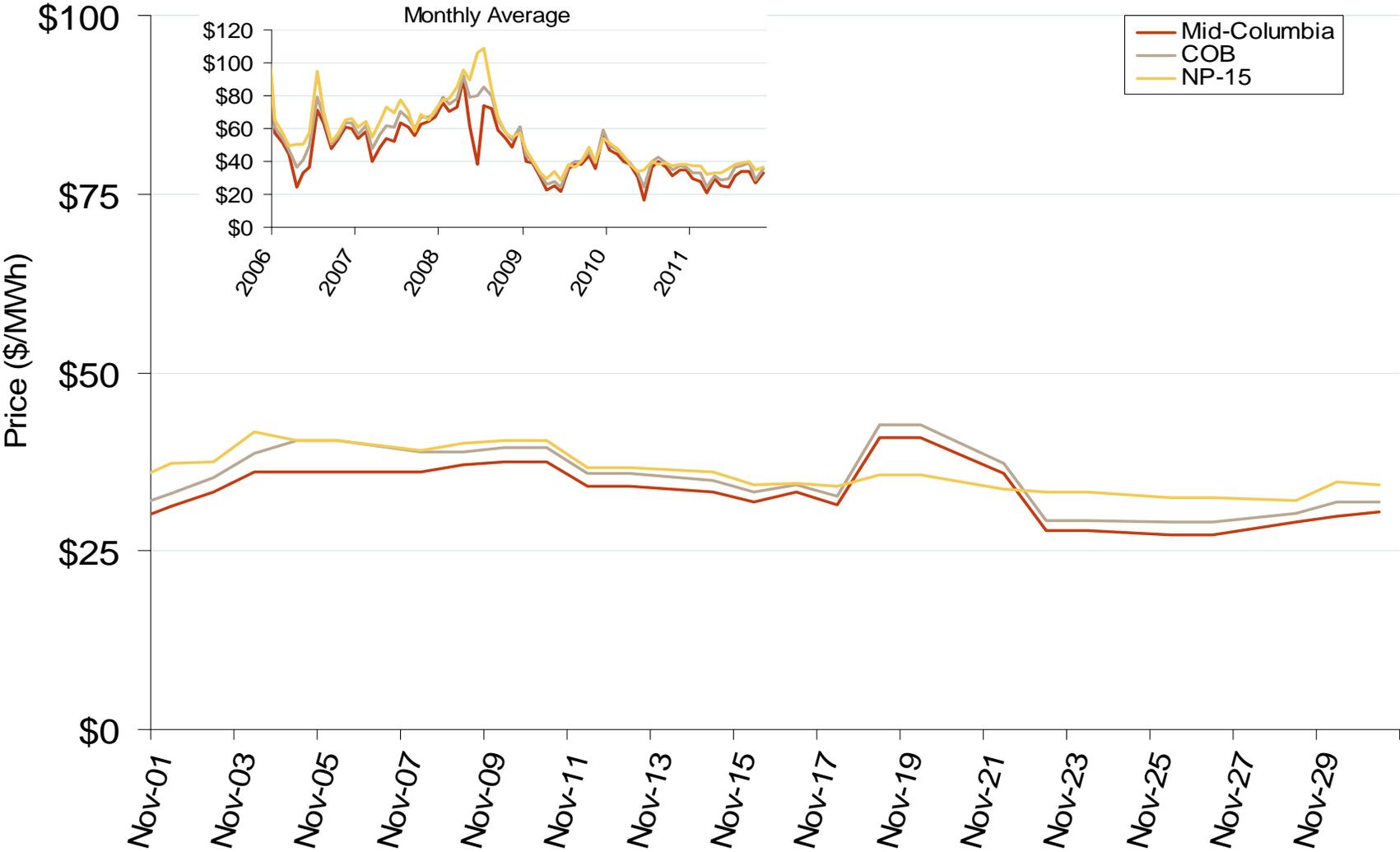
New version of CAISO load-forecasting system shows slight improvement in accuracy

- CAISO upgraded load-forecasting system from the Automated Load Forecasting System 2, or ALFS2, to the ALFS3 in May 2011.
- Early indications are that the ALFS3 is showing a marginal improvement in forecast accuracy compared to ALFS2.
- The ALFS3 provides a greater level of forecast granularity and includes features to detect bad forecast inputs.
- The CAISO intends to upgrade to the ALFS5 load-forecasting system by the end of 2012.

Northwest Electric Market: Last Month's Northwestern Bilateral Prices

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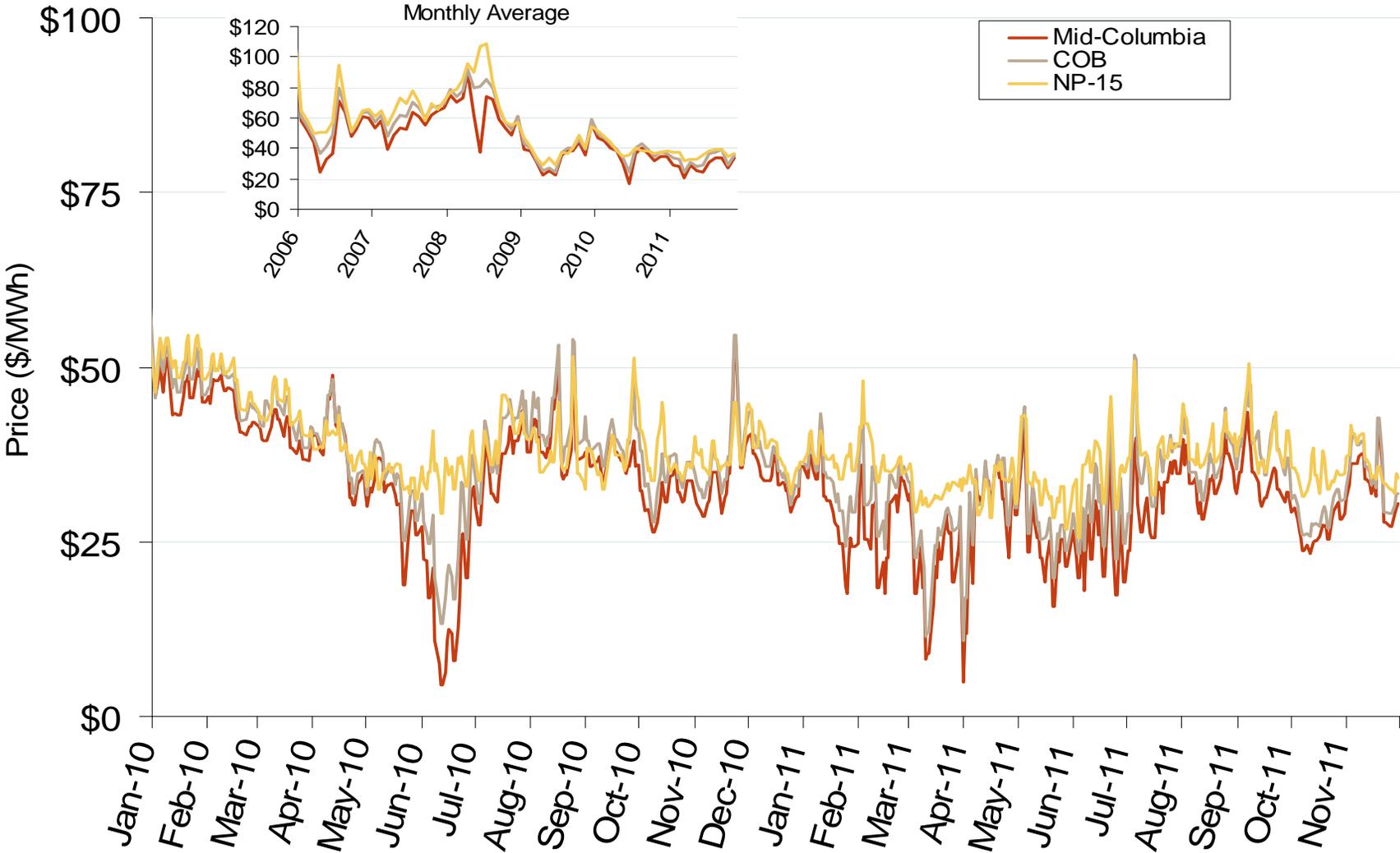
Northwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data
December 2011 Western Snapshot

Updated: December 05, 2011

Northwestern Daily Bilateral Day-Ahead On-Peak Prices

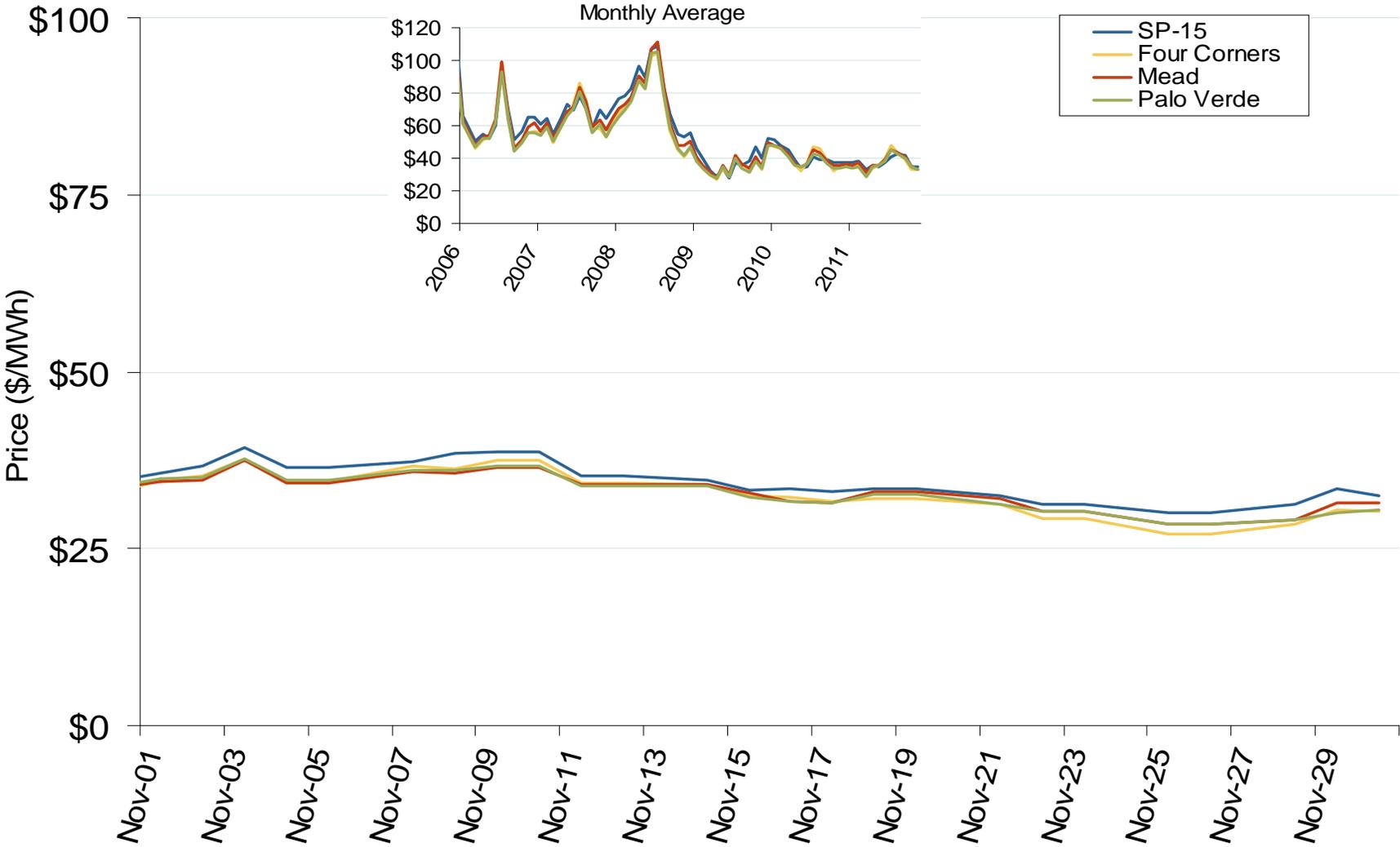


Source: Derived from *Platts* data
December 2011 Western Snapshot

Updated: December 05, 2011

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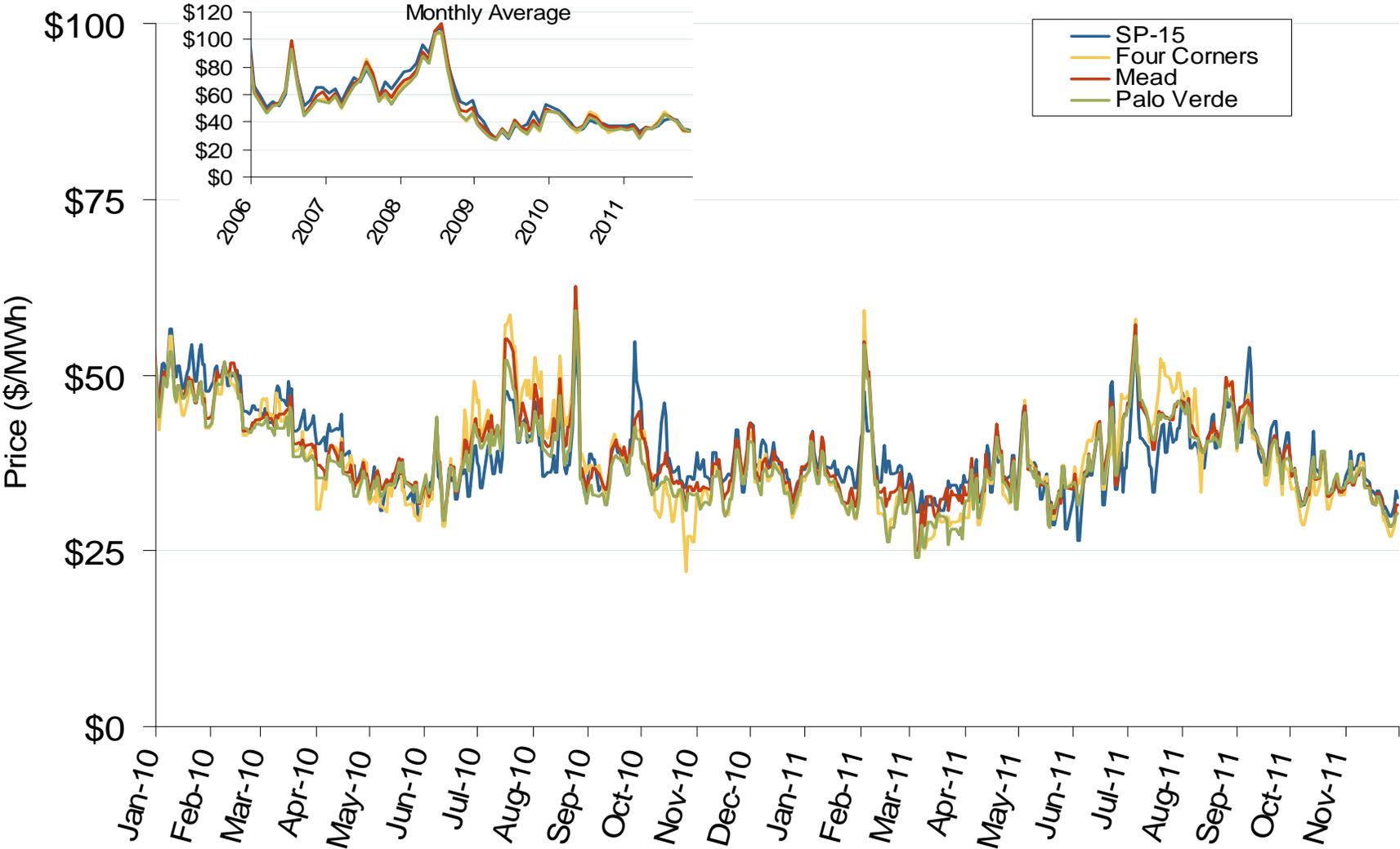
Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data
December 2011 Western Snapshot

Updated: December 05, 2011

Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data
December 2011 Western Snapshot

Updated: December 05, 2011

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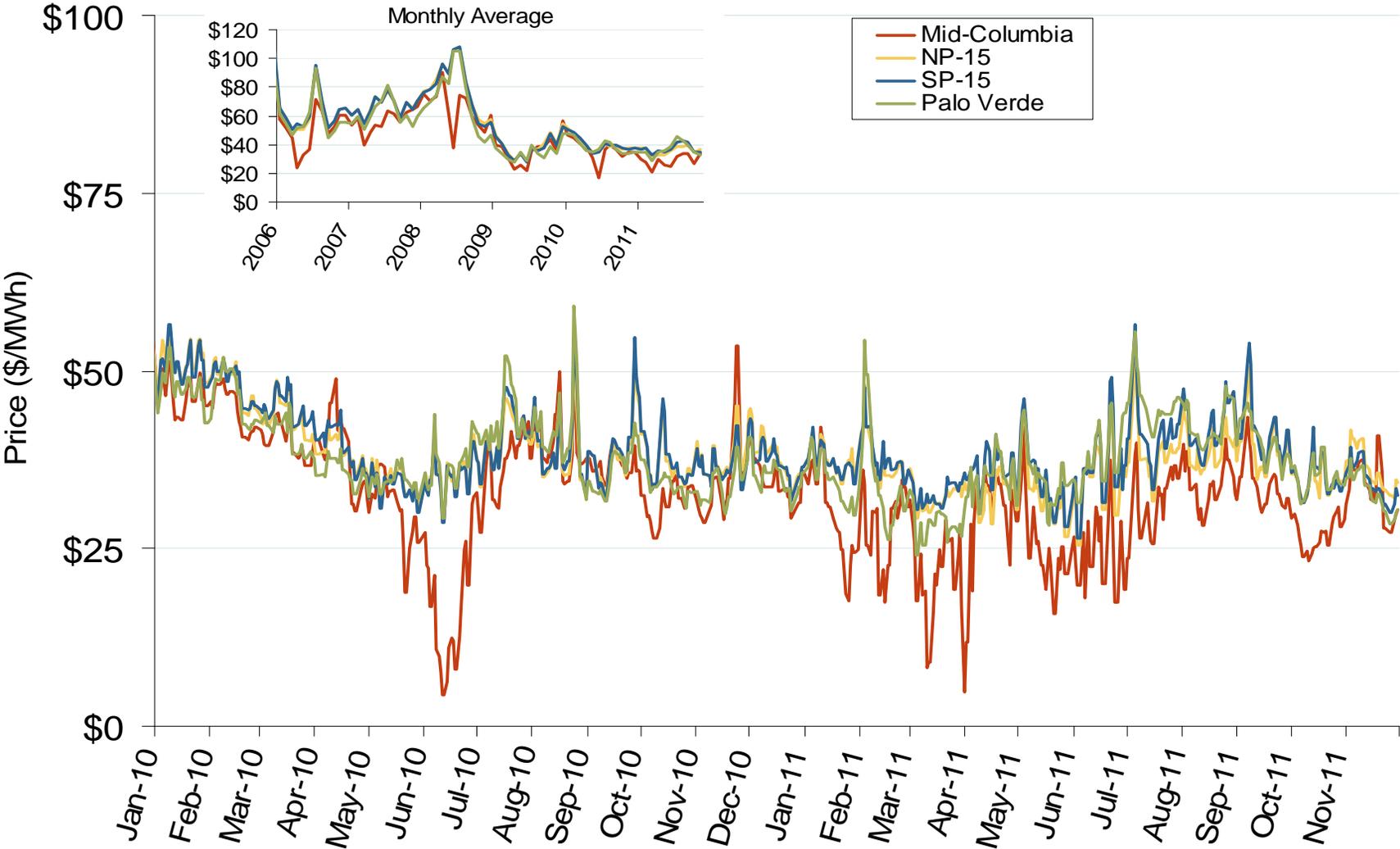
Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data
December 2011 Western Snapshot

Updated: December 05, 2011

Western Daily Bilateral Day-Ahead On-Peak Prices

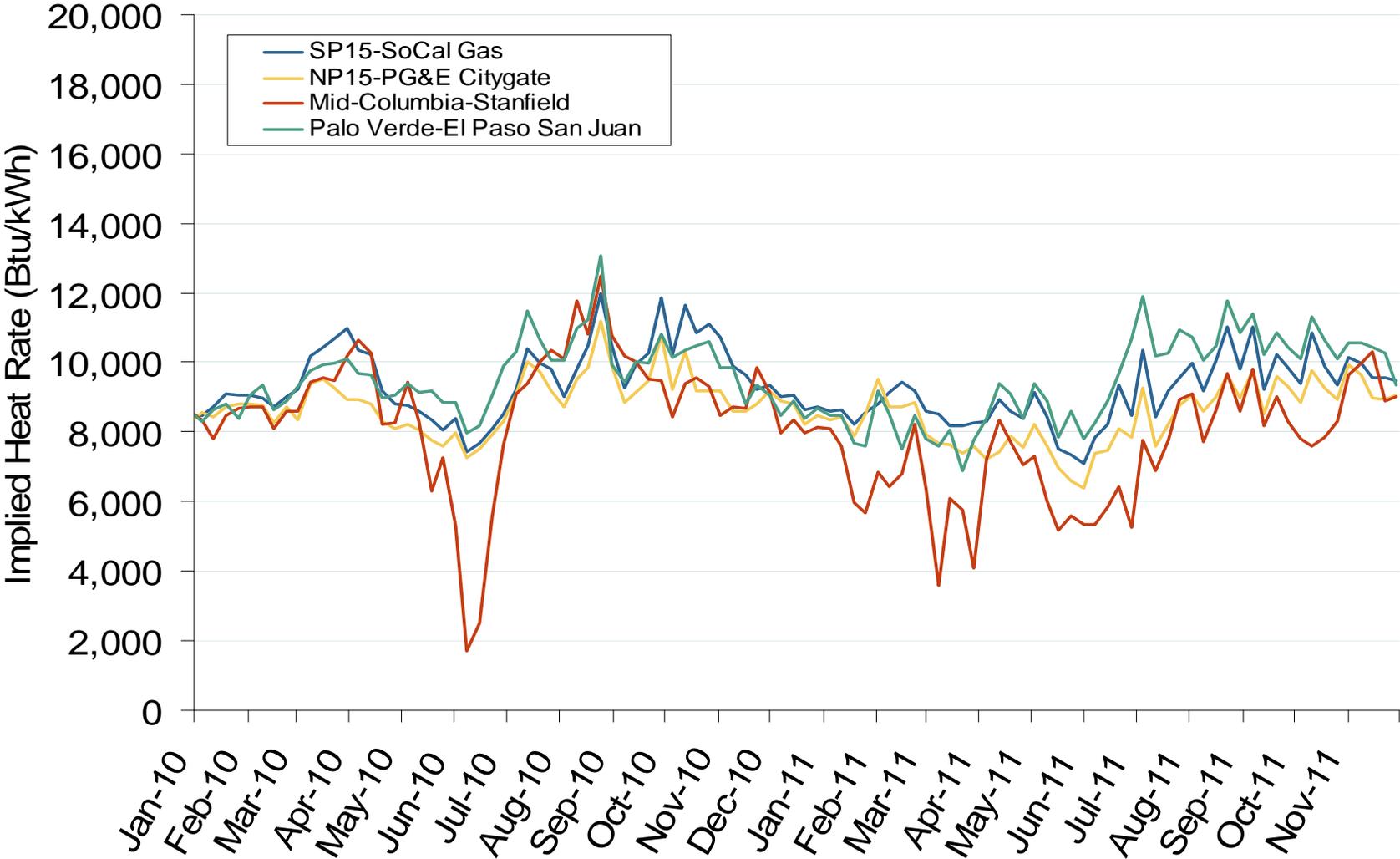


Source: Derived from *Platts* data
December 2011 Western Snapshot

Updated: December 05, 2011

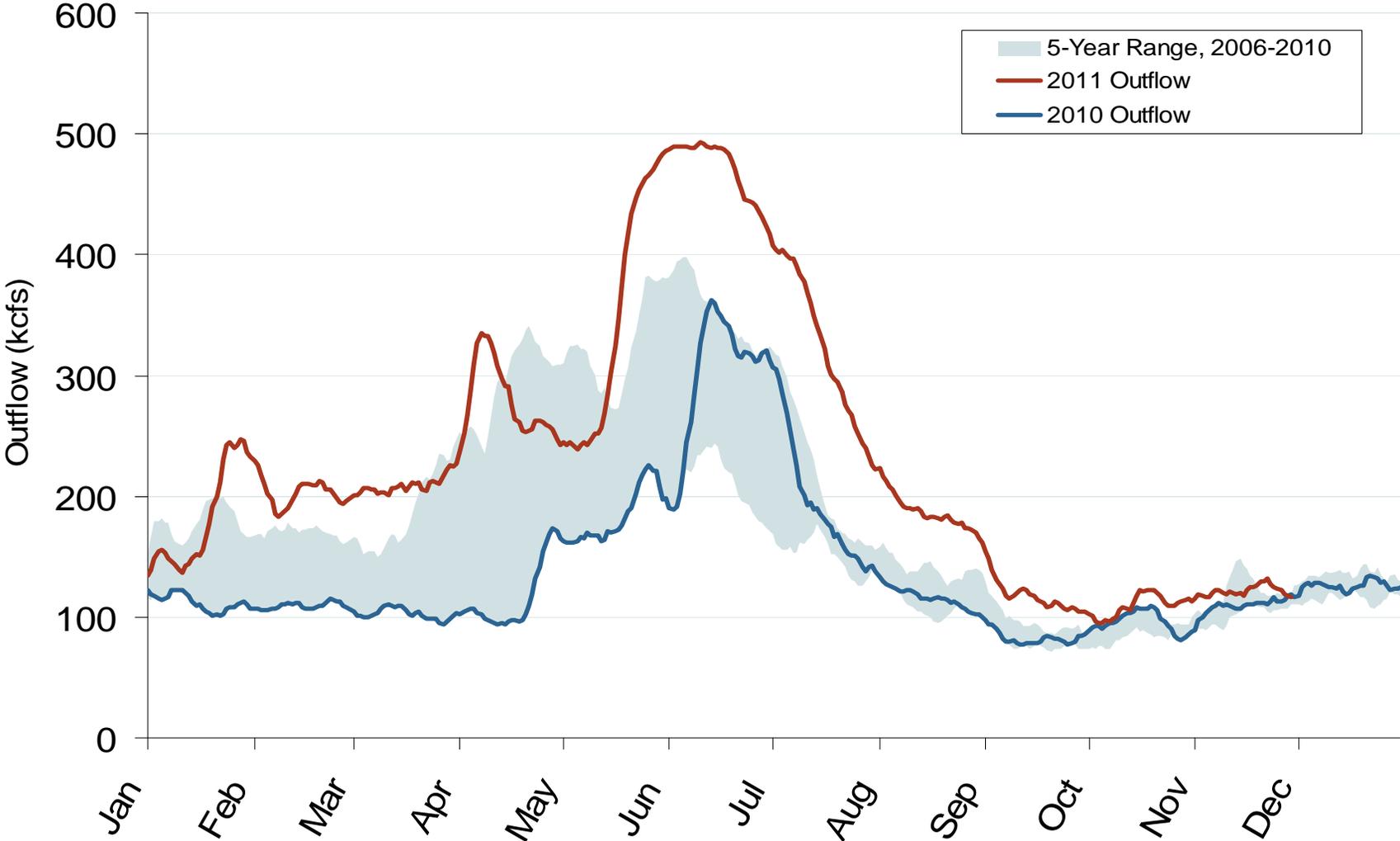
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Implied Heat Rates at Western Trading Points - Weekly Avgs.



Source: Derived from *Platts* on-peak electric and natural gas price data
December 2011 Western Snapshot

Stream Flows at the Dalles Dam

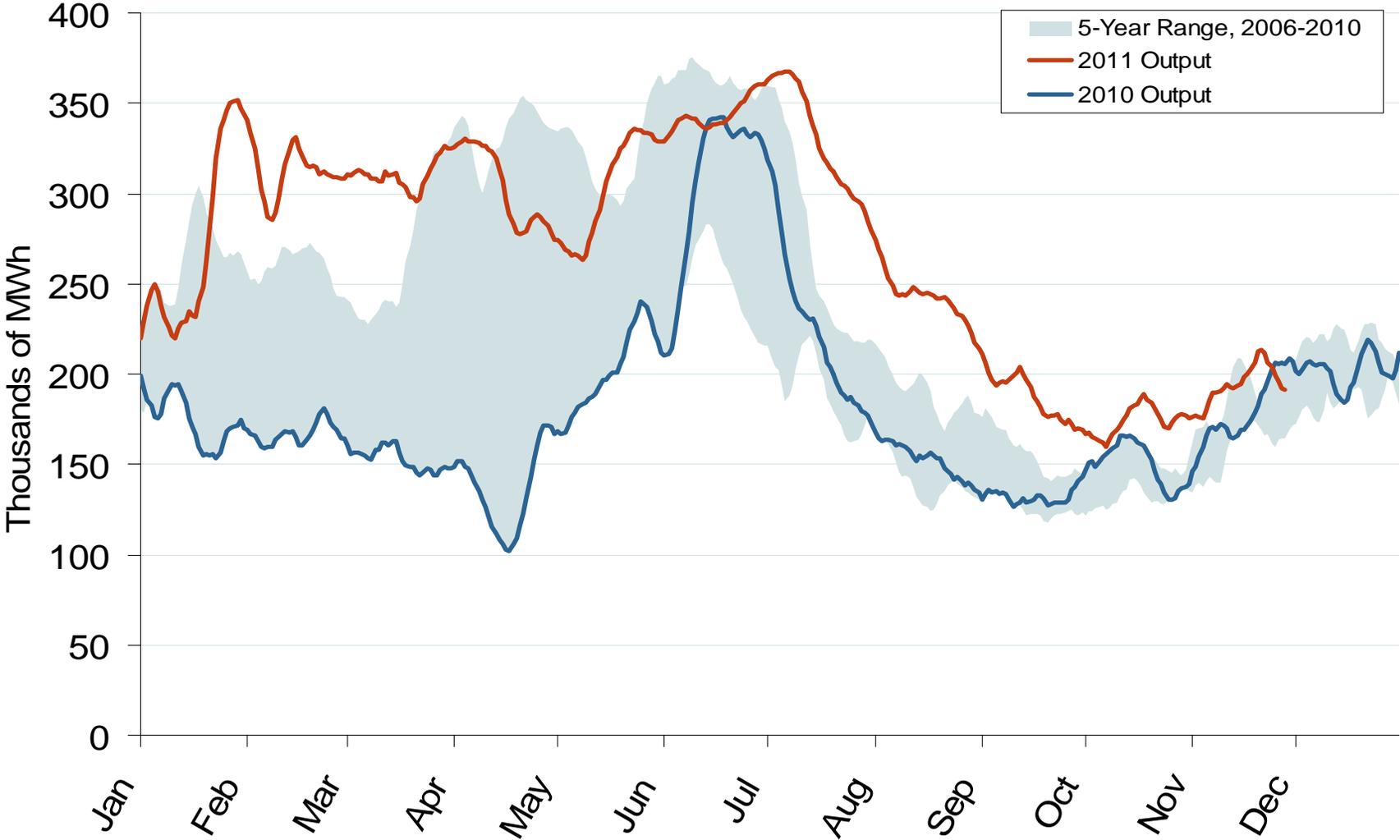


Notes: Trend lines are 7-day moving averages

Source: Derived from USACE data

December 2011 Western Snapshot

Pacific Northwest Hydroelectric Production



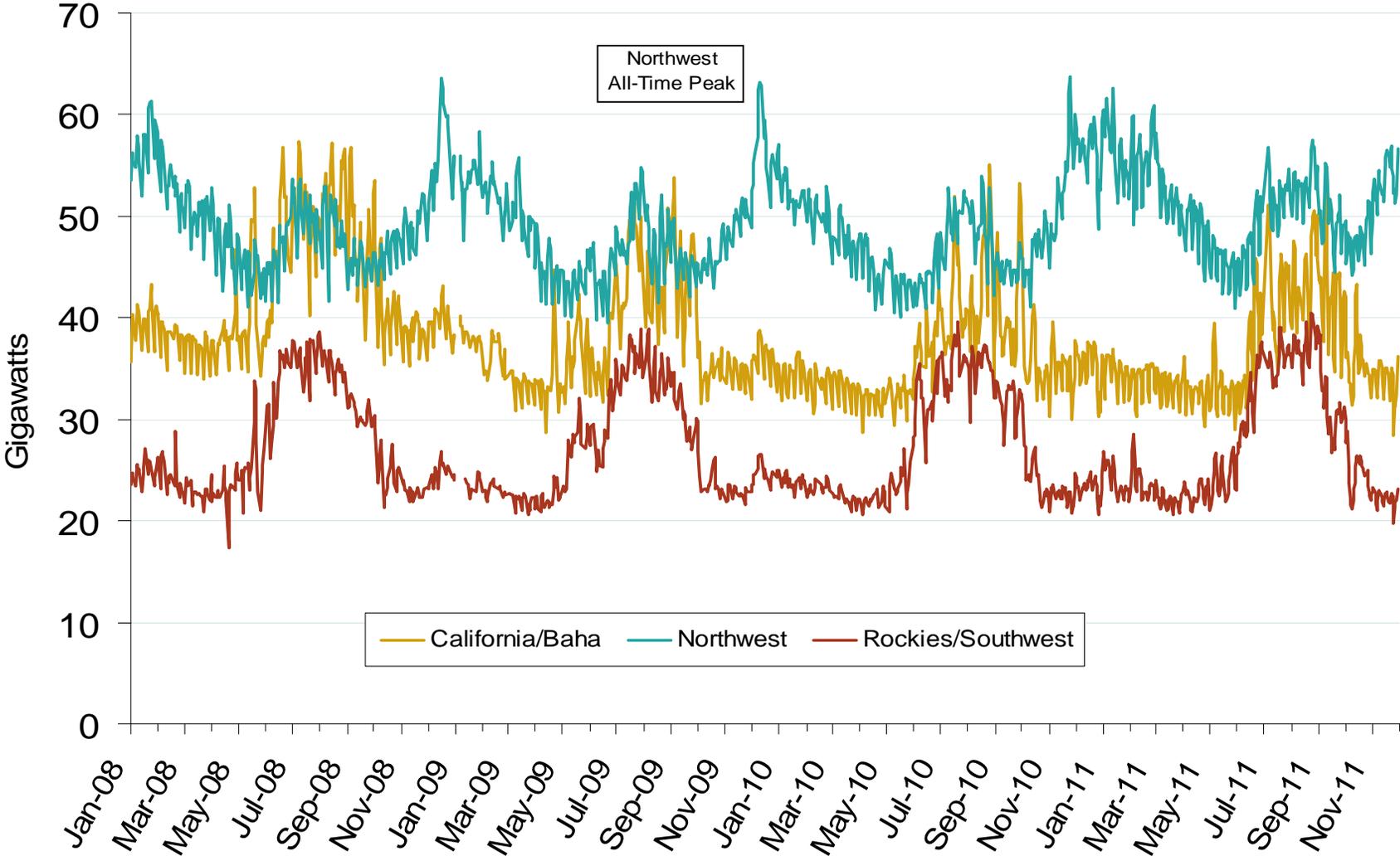
Notes: Trend lines are 7-day moving averages

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

December 2011 Western Snapshot

Updated: December 06, 2011

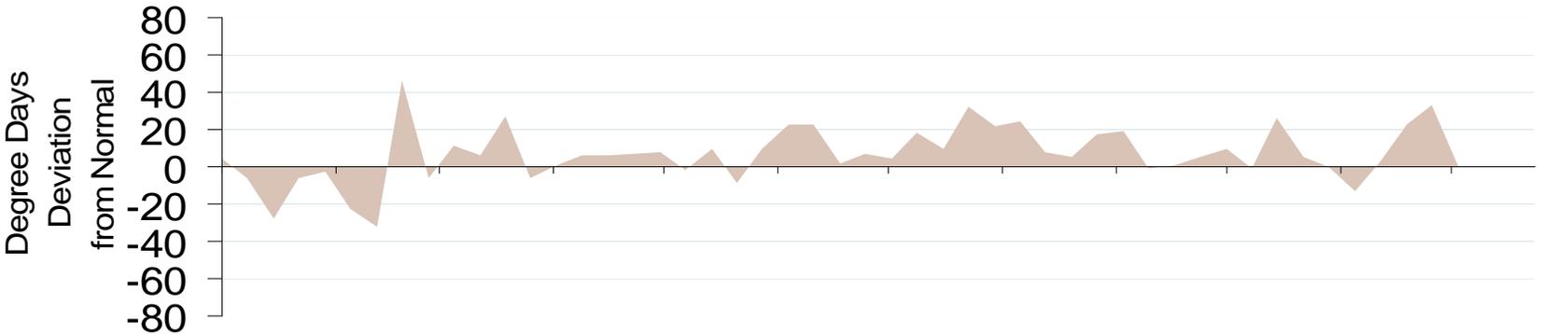
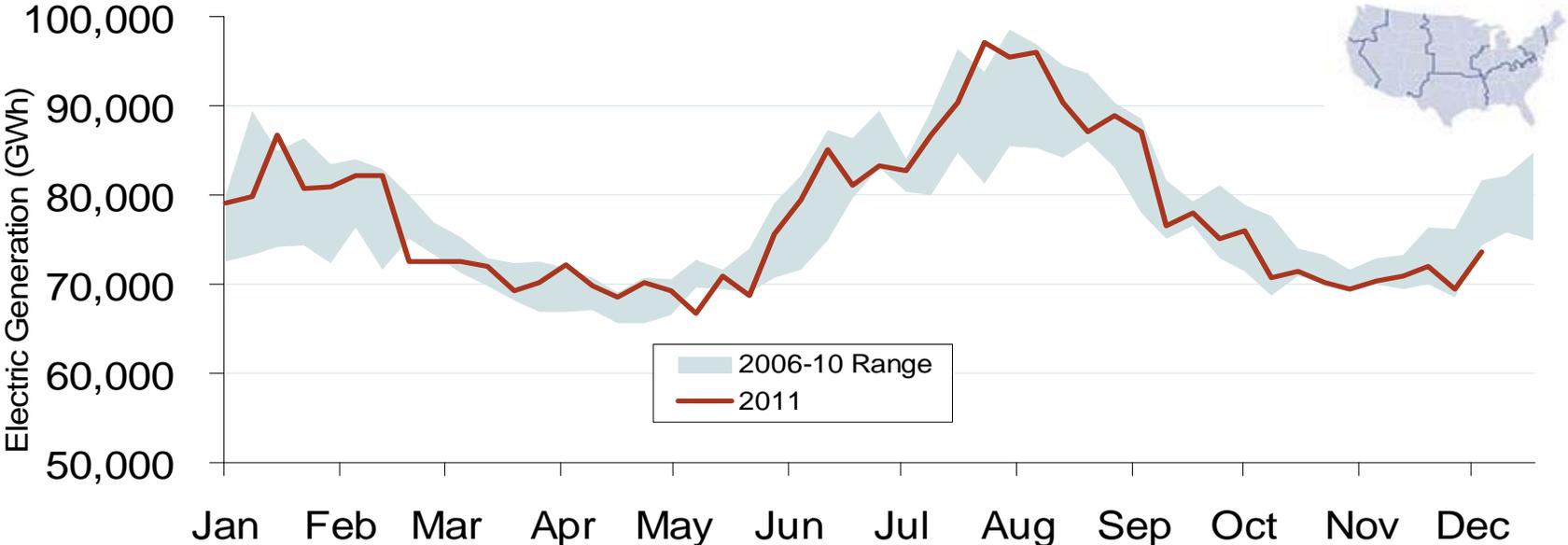
Western Daily Actual Peak Demand



Notes: Data prior to 9/14/2010 does not include weekends and holidays. Some data for 12/31/2008 – 1/9/2009 are not available from WECC

Source: Derived from WECC Daily Report data available at <http://wecc.biz>

Weekly U.S. Electric Generation Output and Temperatures

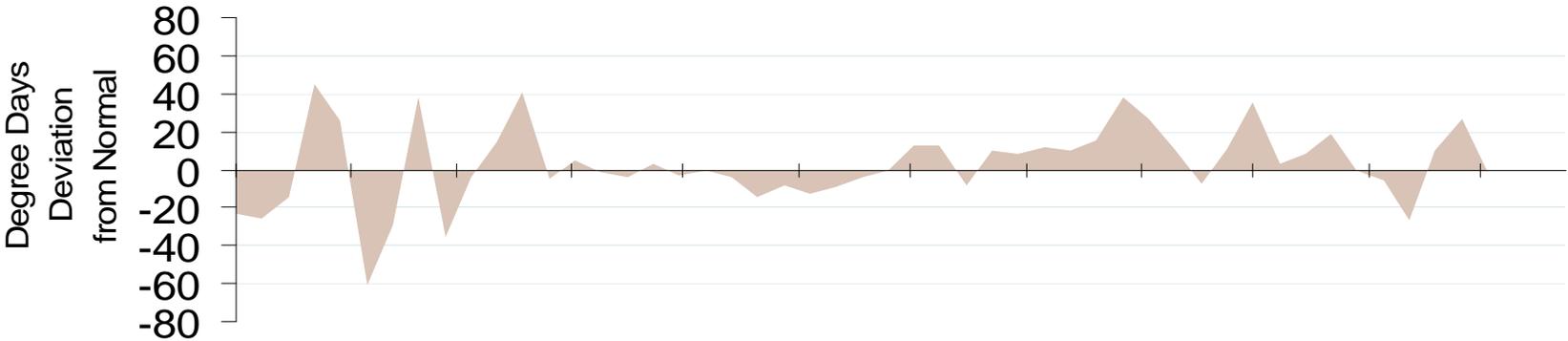
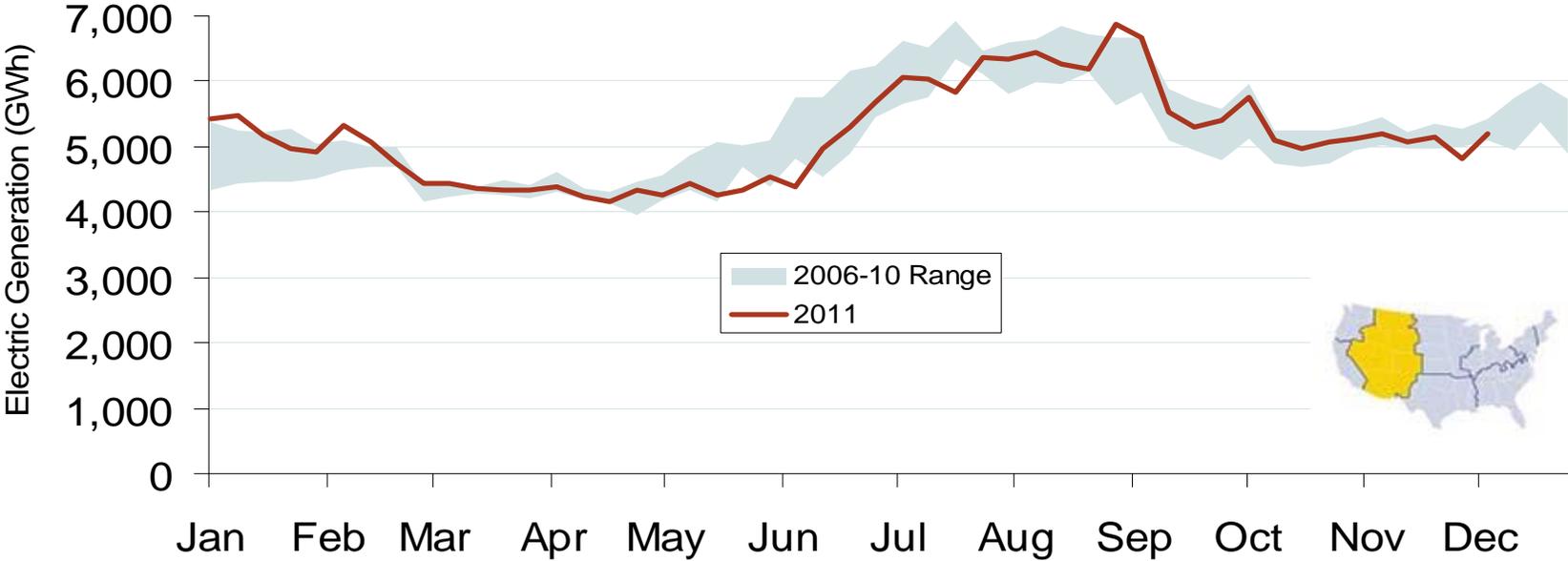


Source: Derived from EEI and NOAA data
December 2011 Western Snapshot

Southwest Electric Market: Generation Output and Temperatures

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Weekly Power Generation & Temps. - Rocky Mountains

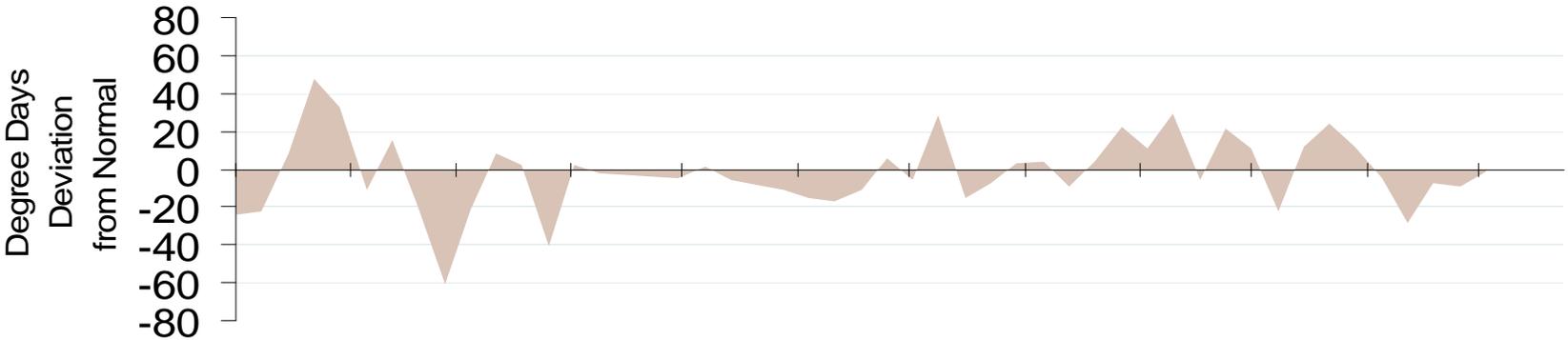
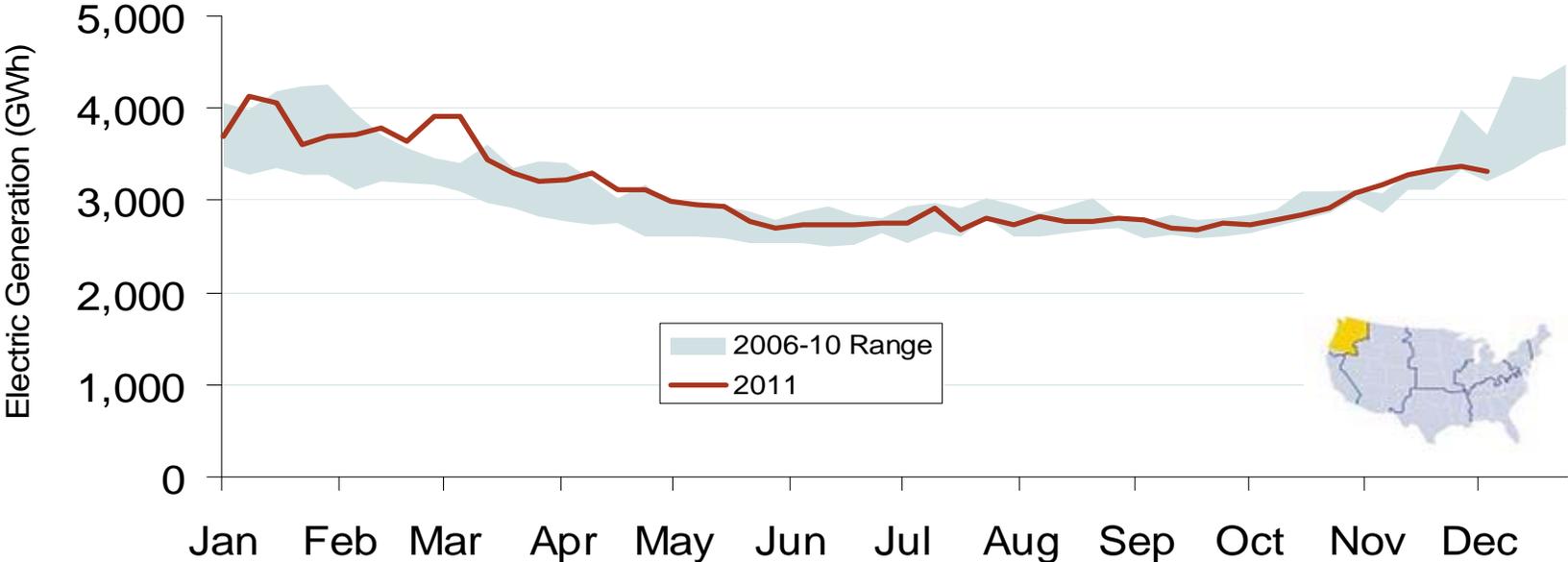


Source: Derived from *EEI* and *NOAA* data
December 2011 Western Snapshot

Updated: December 07, 2011

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Weekly Power Generation & Temps. - Pacific Northwest



Source: Derived from *EEI* and *NOAA* data
December 2011 Western Snapshot

Weekly Power Generation & Temps. - California

