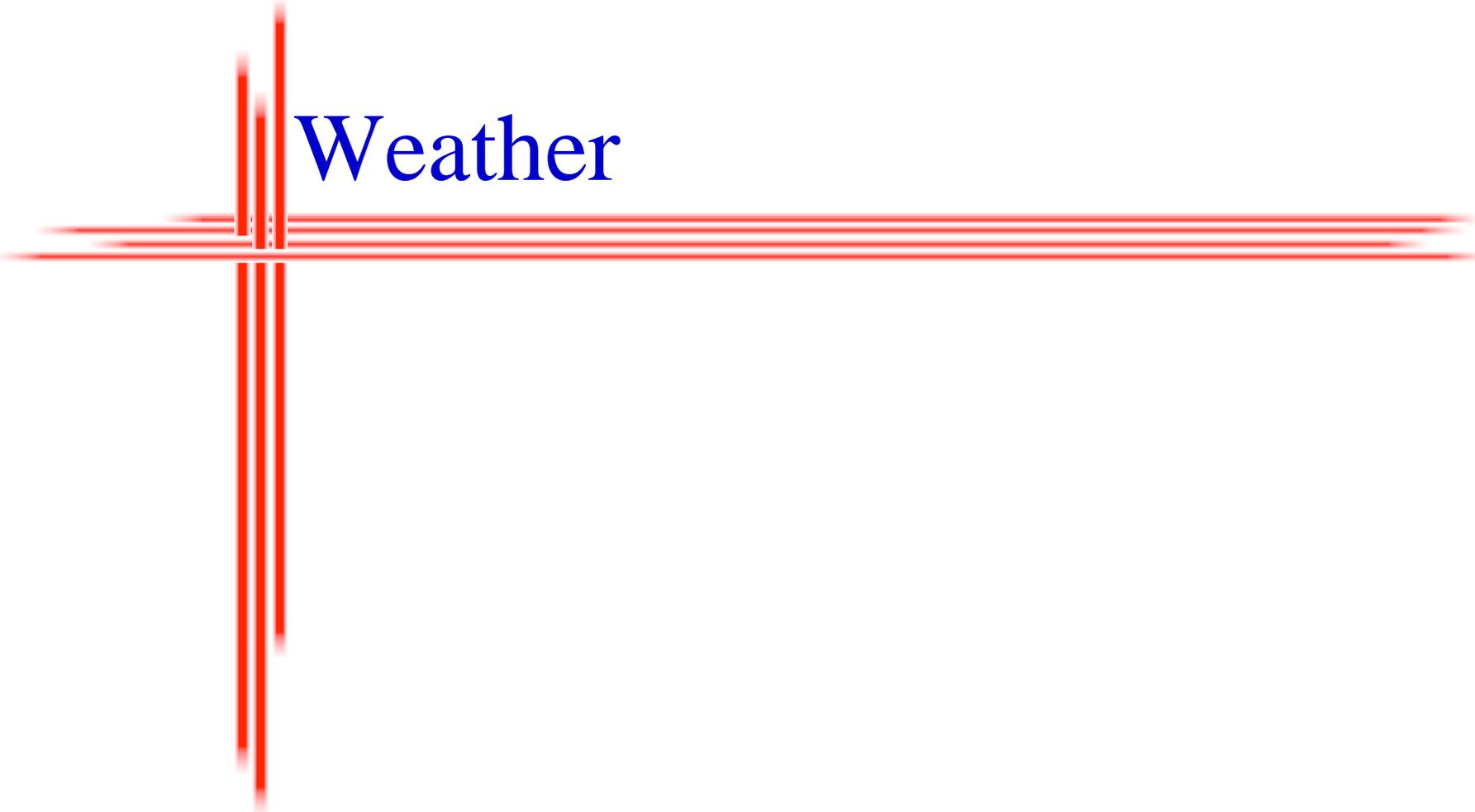


OE ENERGY MARKET SNAPSHOT

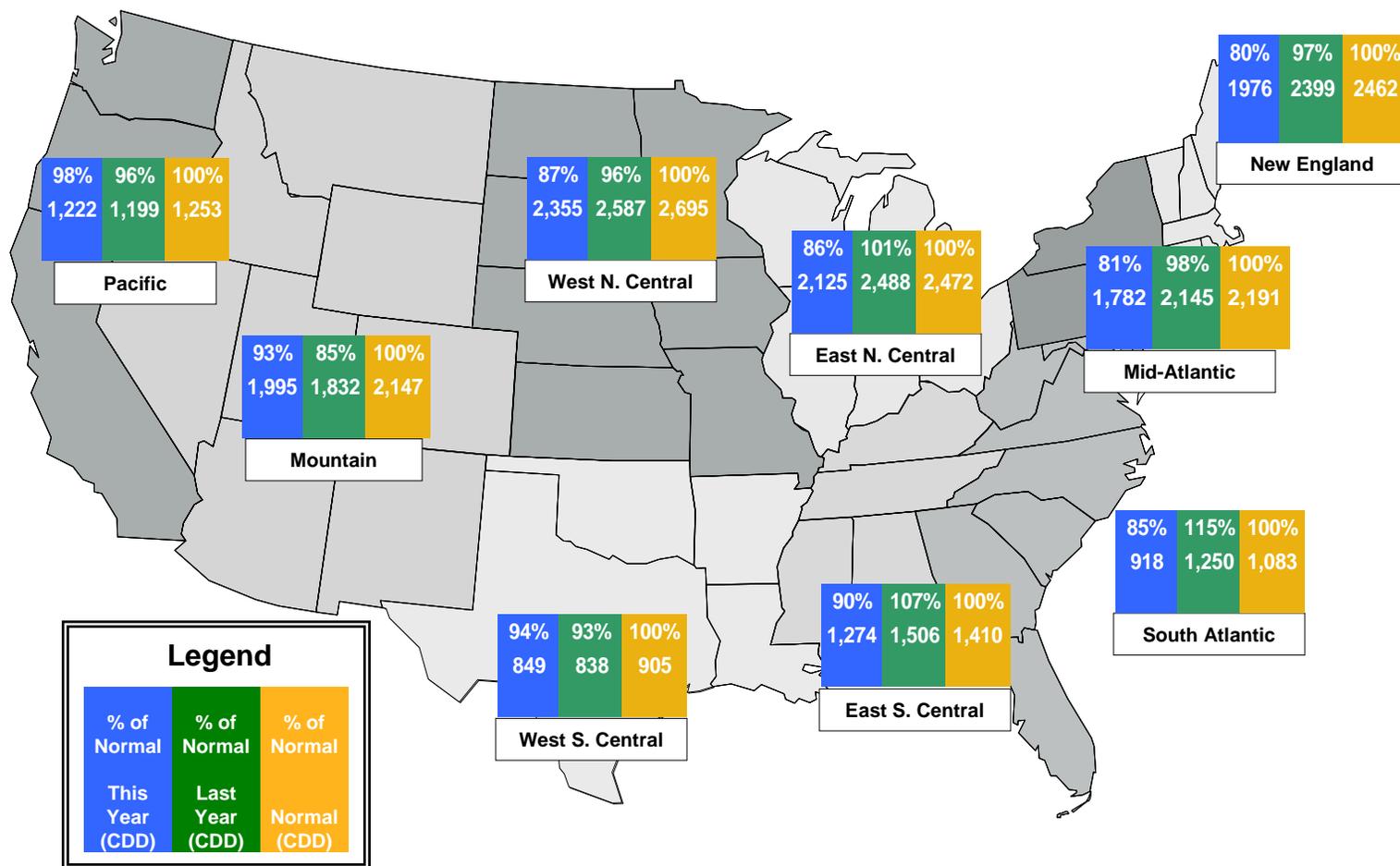
Western States Version – December 2011 Data

Office of Enforcement
Federal Energy Regulatory Commission
January 2012



Weather

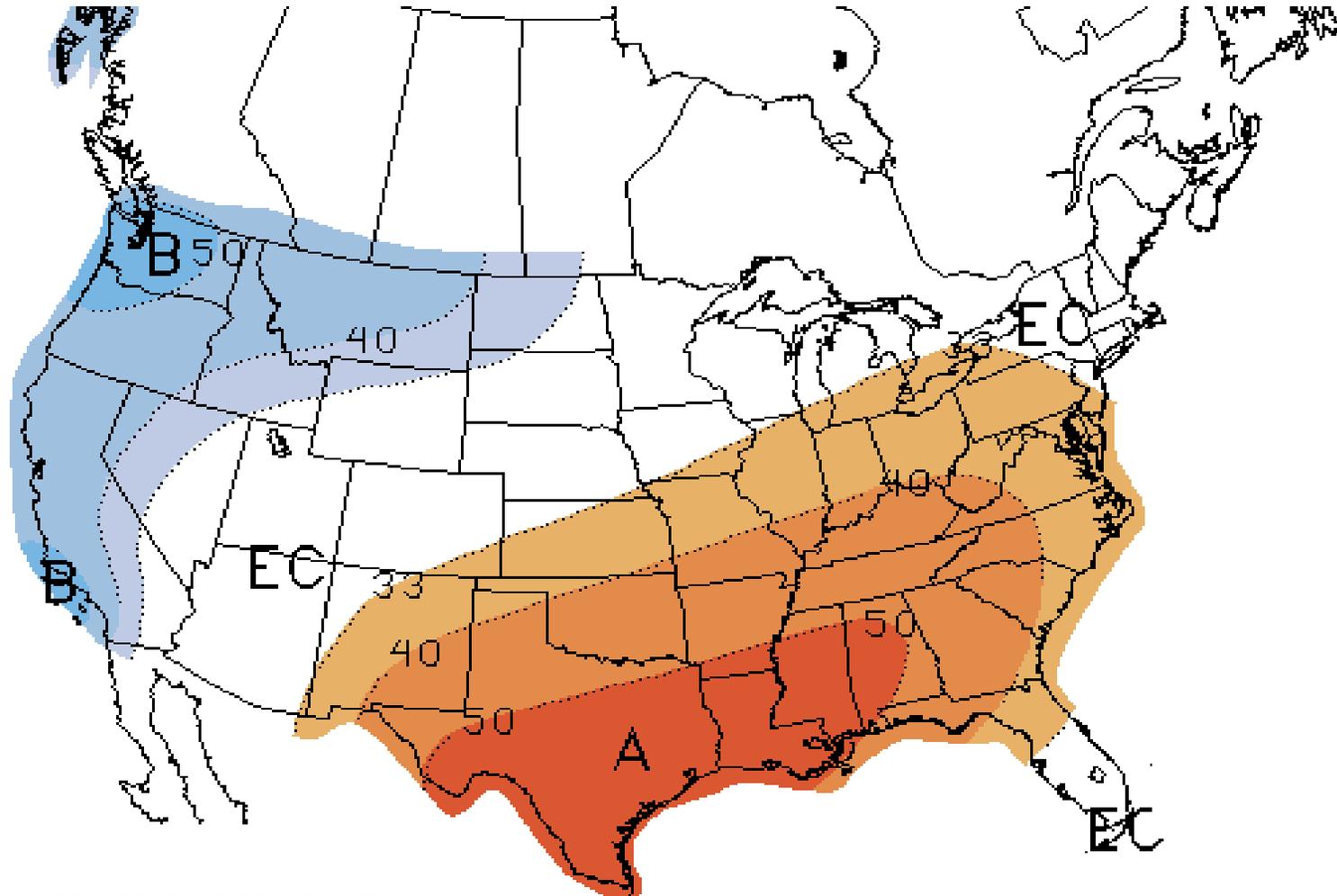
Regional Heating Degree Days – July 2011 to December 2011



Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.
 January 2012 Western Snapshot

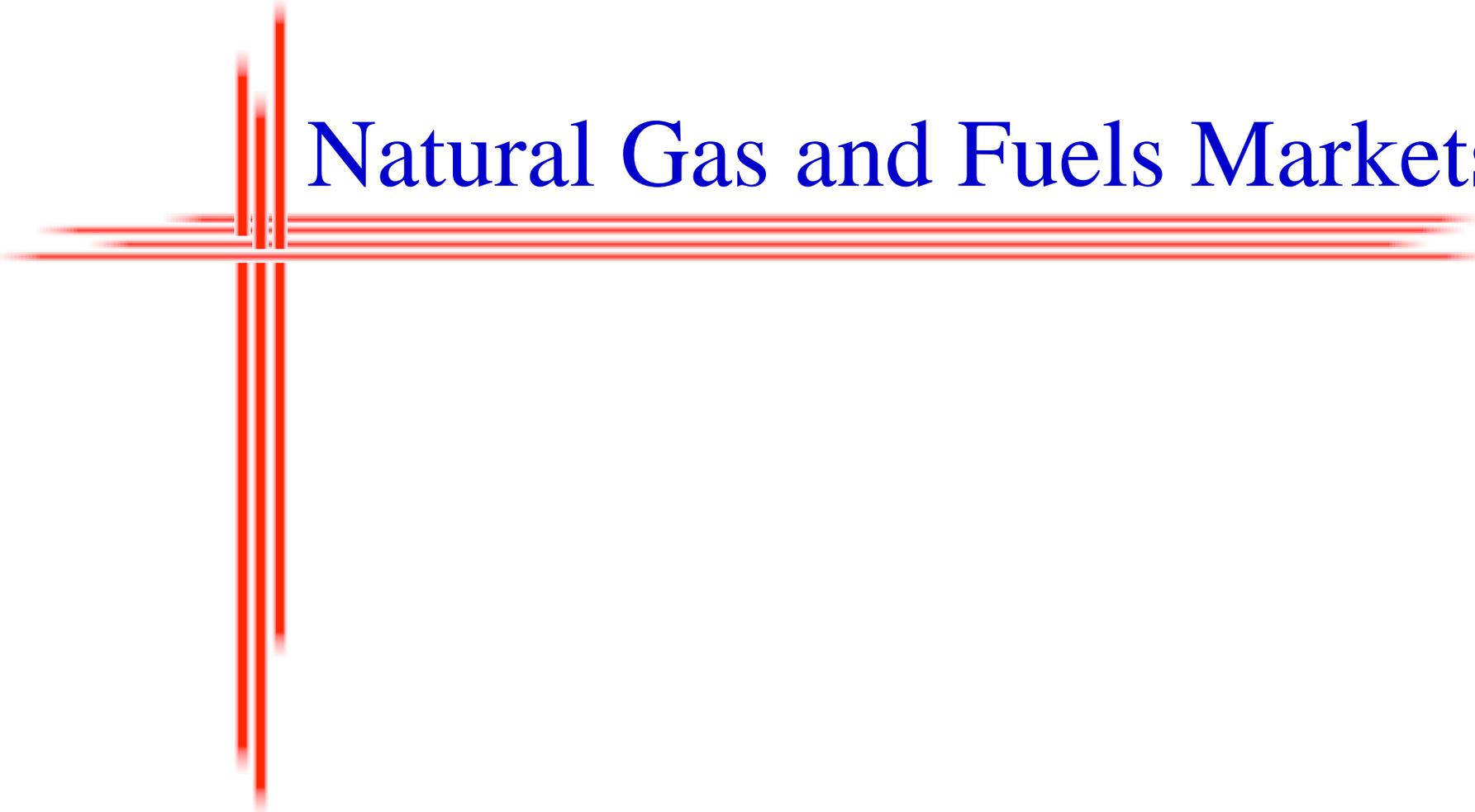
Updated January 3, 2012

NOAA's 3 Month Temperature Forecast Made December 15, 2011, Valid for January 2012 – March 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: January 3, 2012



Natural Gas and Fuels Markets

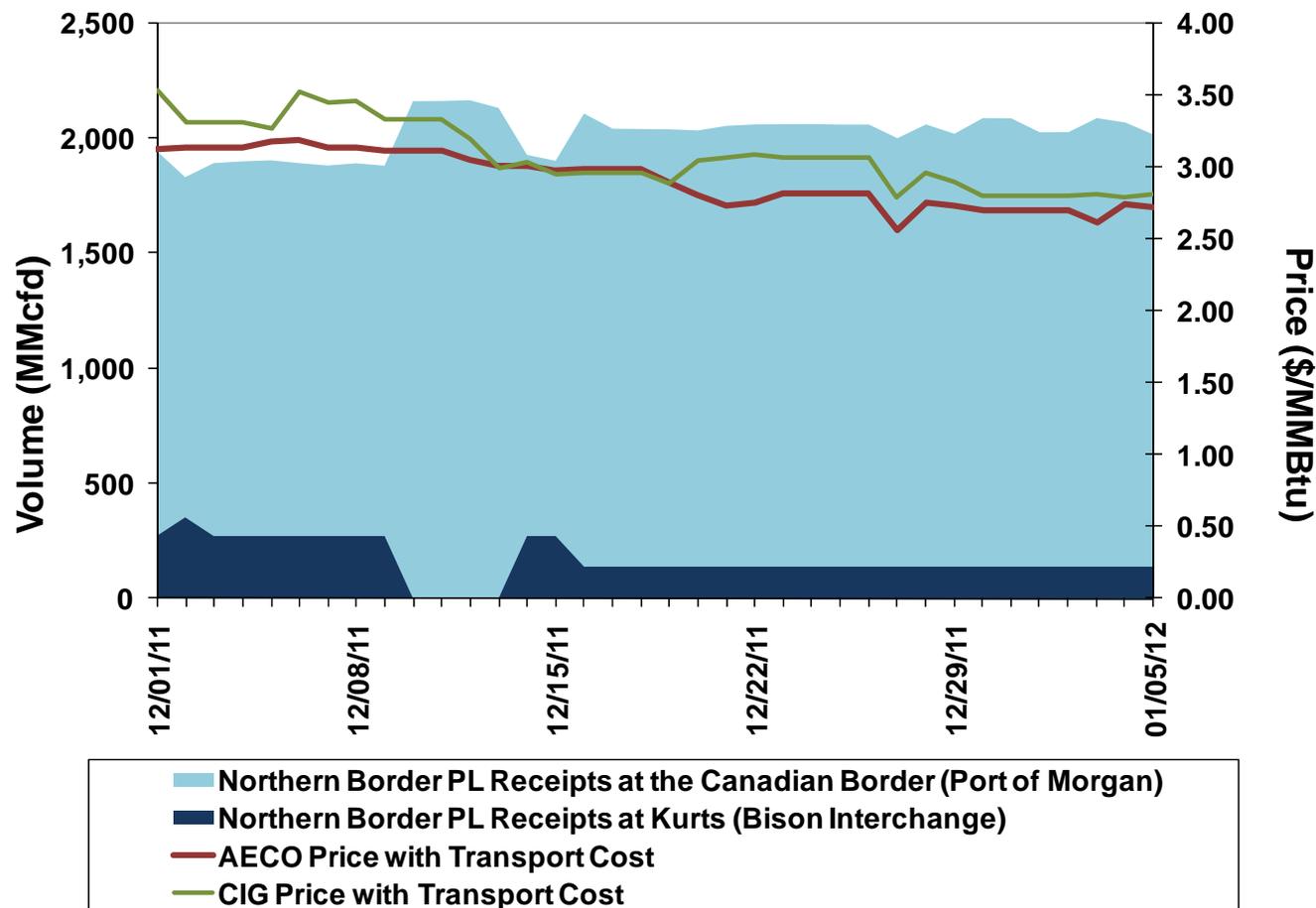
January Monthly Settlement Prices

Monthly prices decline everywhere outside of the Northeast			
Locations	Bidweek Jan - 2012	Change from last month	Change from last year
Boston	\$5.29	\$2.71	-\$2.32
Chicago	\$3.31	-\$0.41	-\$1.08
Houston	\$2.99	-\$0.29	-\$1.09
New York city	\$5.22	\$2.76	-\$3.73
Northern California	\$3.43	-\$0.44	-\$0.83
Rockies	\$3.01	-\$0.36	-\$0.86
Southern California	\$3.38	-\$0.29	-\$0.69
NYMEX Prompt Month (Henry Hub)	\$3.08	-\$0.28	-\$1.31

(For use in Midwest & Western snapshots): Shippers Favor Canadian Supply in Mid-West

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

Rockies Natural Gas Flows on Bison Pipeline Displaced by Less Expensive Canadian Gas



Source: Bentek Energy, ICE.

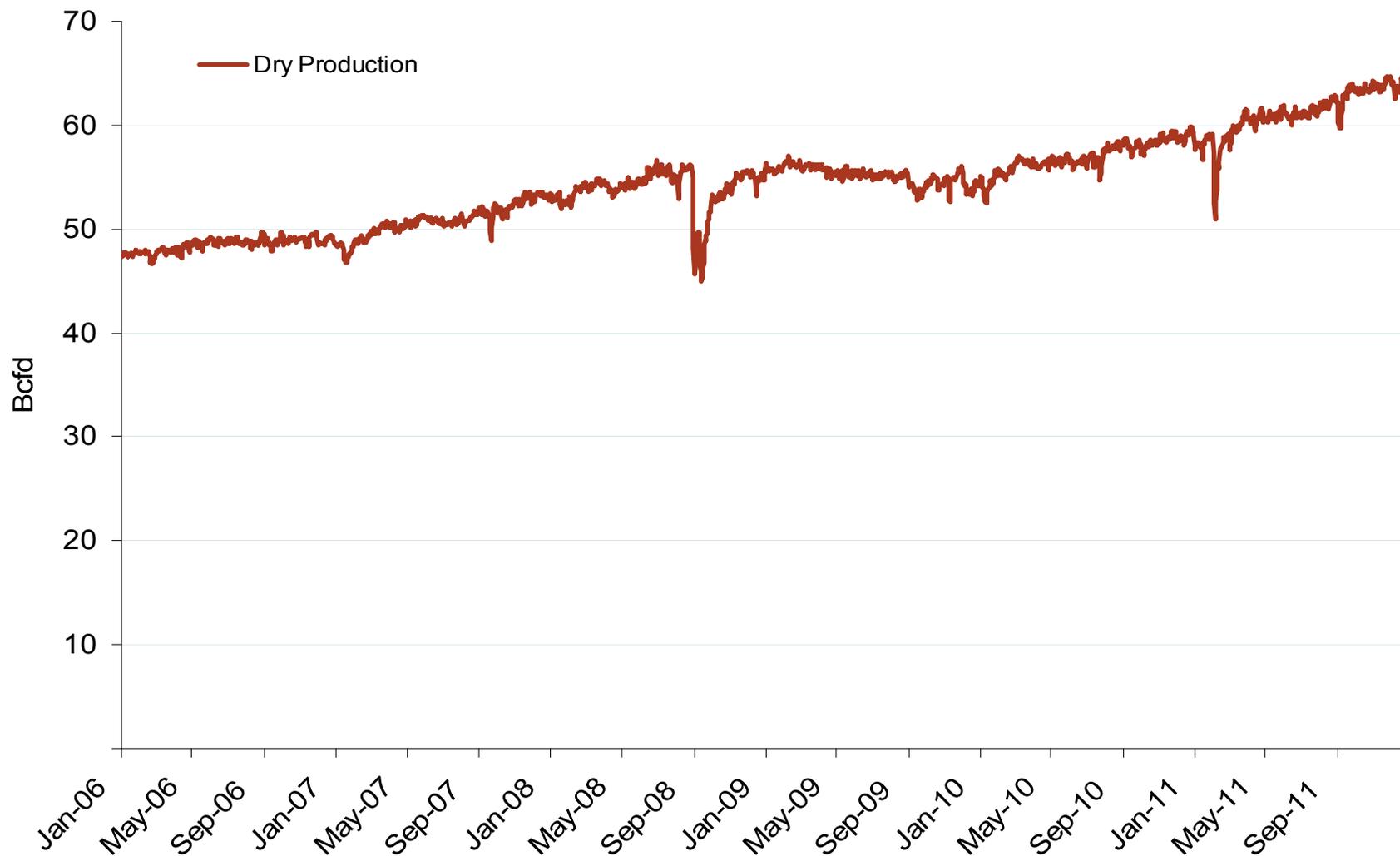
January 2012 Western Snapshot

Updated January 2012

Western Annual Average Spot Hub Prices

Annual Average Day Ahead Prices (\$/MMBtu)						
	2007	2008	2009	2010	2011	5-Year Avg
Socal Border	\$6.41	\$7.80	\$3.61	\$4.25	\$4.05	\$5.23
PG&E Citygate	\$6.89	\$8.59	\$4.13	\$4.53	\$4.24	\$5.67
Opal	\$4.07	\$6.48	\$3.13	\$3.94	\$3.81	\$4.29
Sumas (Huntington)	\$6.49	\$8.14	\$3.76	\$4.10	\$3.87	\$5.27
El Paso Bondad	\$6.02	\$6.99	\$3.28	\$4.02	\$3.80	\$4.82
El Paso San Juan	\$6.06	\$7.16	\$3.33	\$4.07	\$3.82	\$4.89
Malin	\$6.48	\$8.17	\$3.76	\$4.21	\$3.94	\$5.31

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



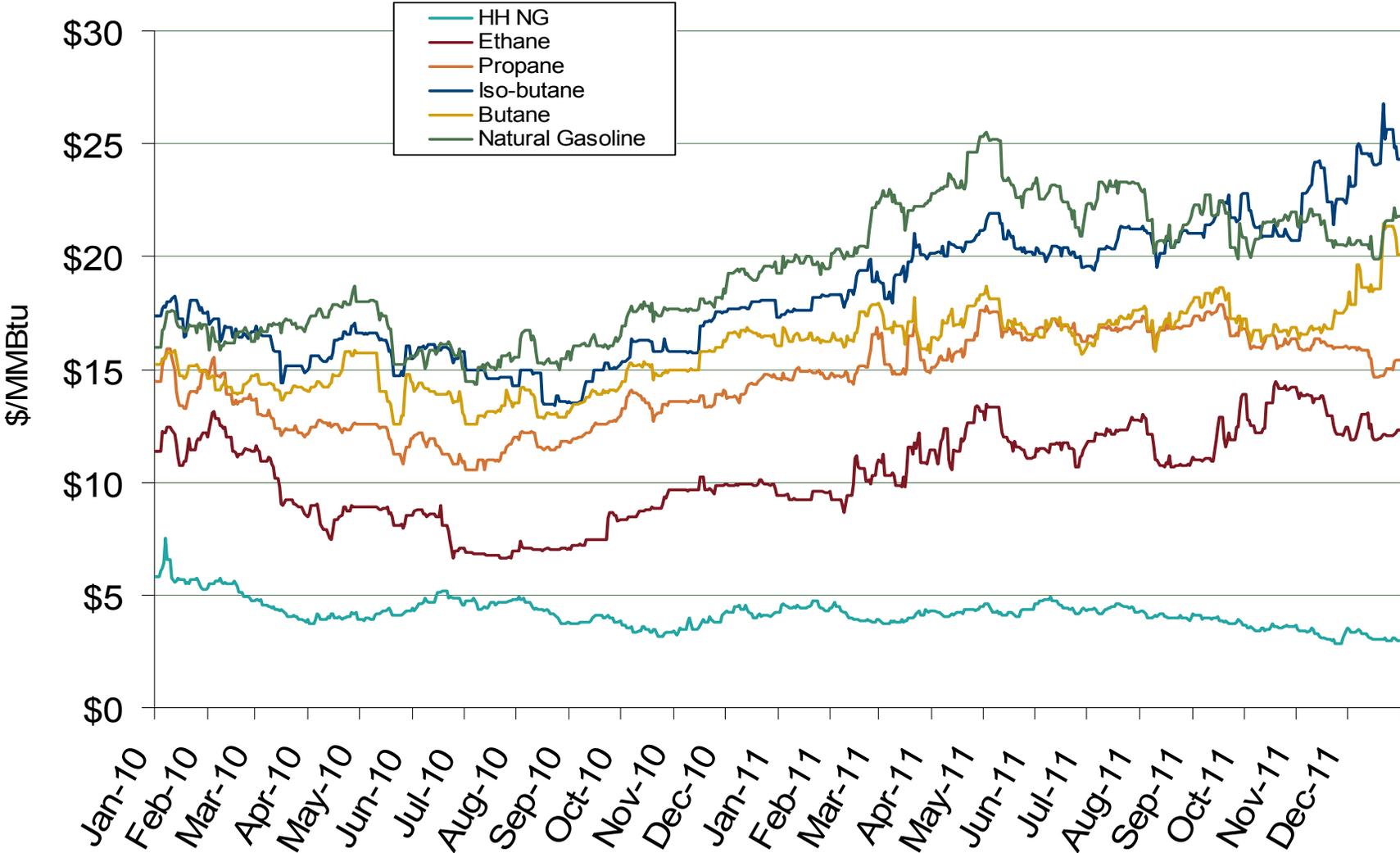
Note: Prior to July 2010, chart was derived from a combination of *EIA* and *Bentek Energy* data

Source: Derived from *Bentek Energy* data

January 2012 Western Snapshot

Updated: January 09, 2012

U.S. Natural Gas vs. Natural Gas Liquids (NGL) Prices



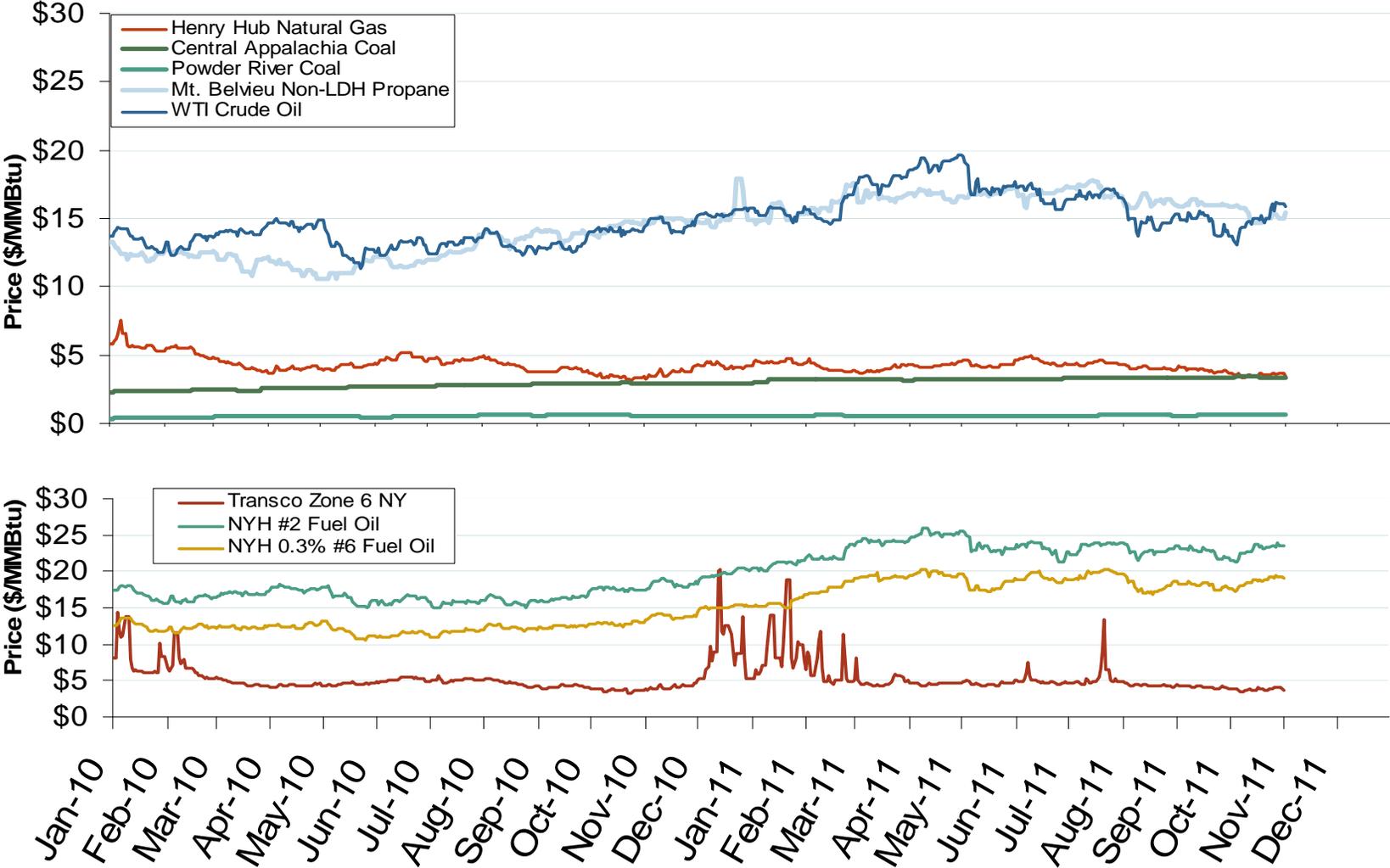
Source: Derived from Bloomberg Data
January 2012 Western Snapshot

Updated: January 04, 2012

Other Fuels Market: Fossil Fuel Prices

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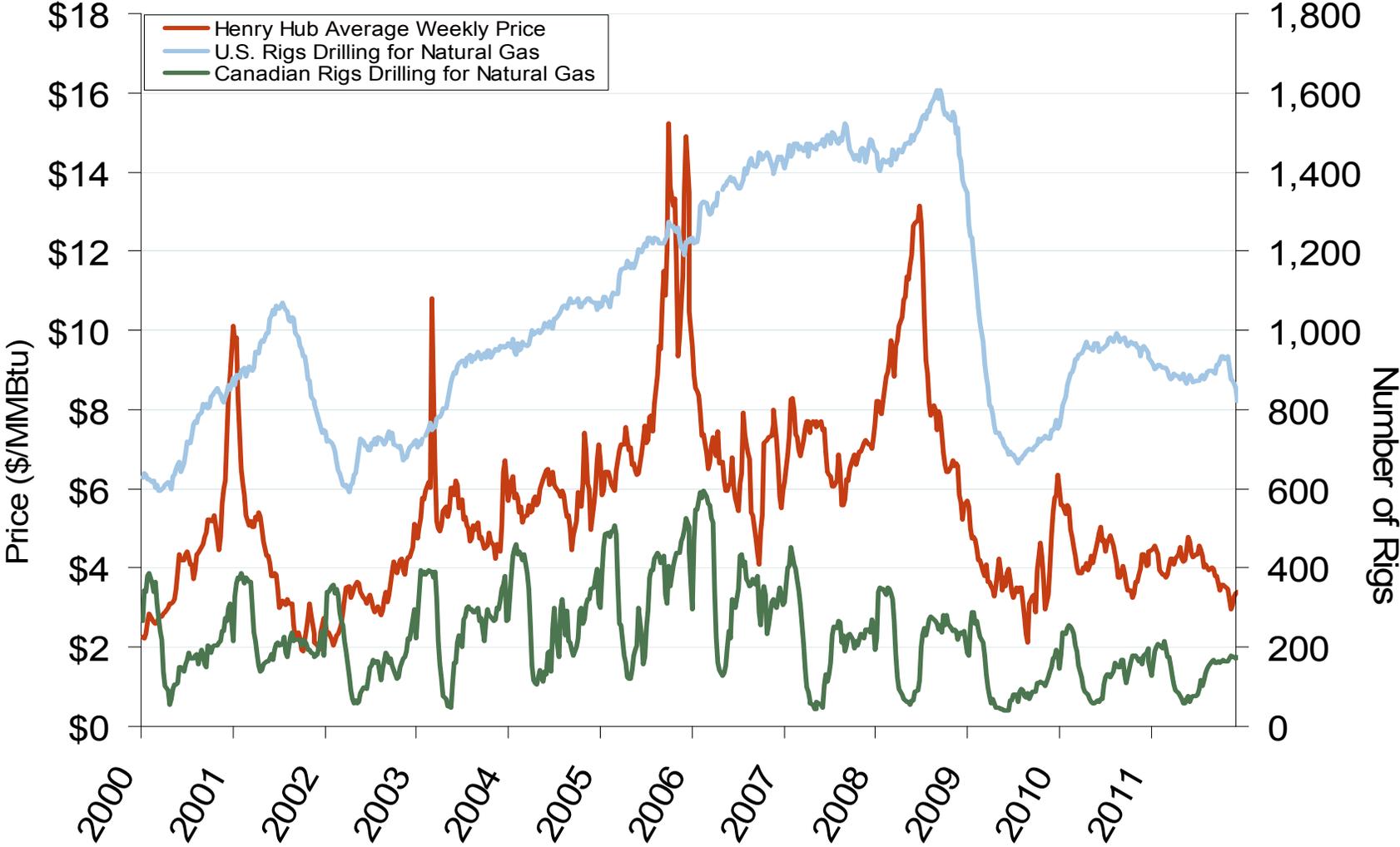
Oil, Coal, Natural Gas and Propane Daily Spot Prices



Notes: 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

Source: Derived from ICE and Bloomberg data

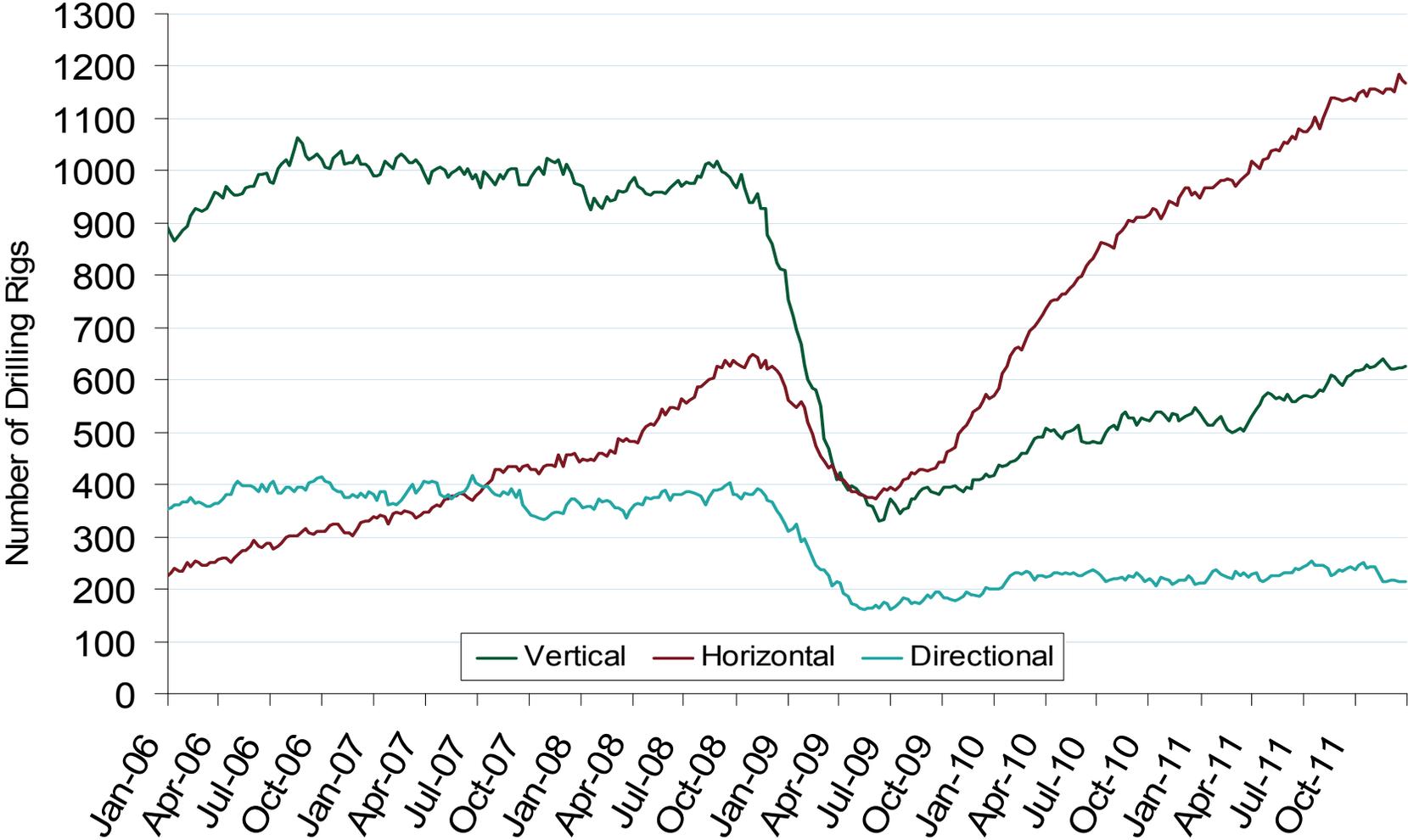
U.S. and Canadian NG Drilling Rig Count and Daily Spot Prices



Source: Derived from *Platts* and *Baker Hughes* data
January 2012 Western Snapshot

Updated: January 03, 2012

U.S. Oil and Natural Gas Drilling Rig Count by Type



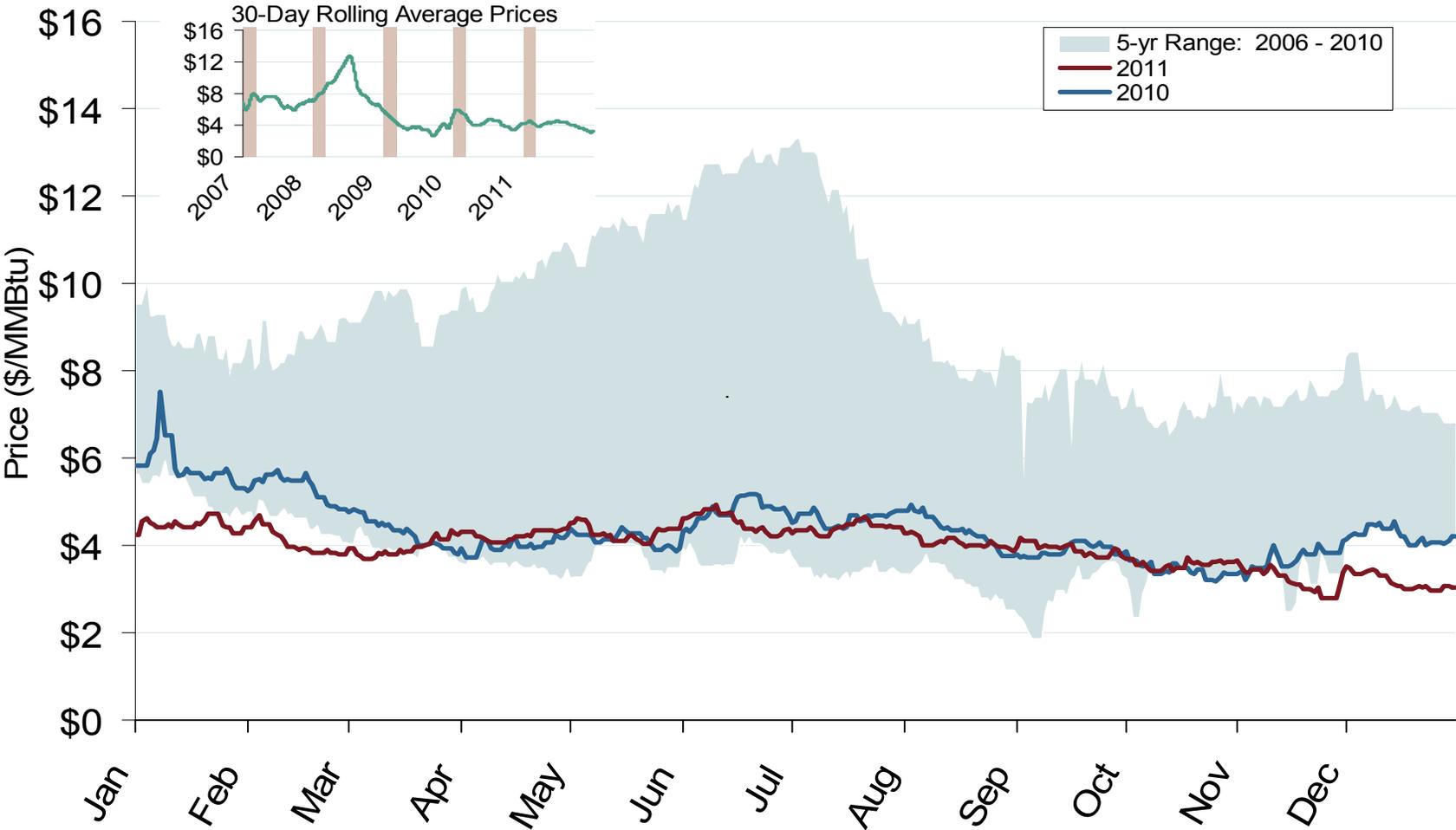
Source: Derived from *Platts* and *Baker Hughes* data
January 2012 Western Snapshot

Updated: January 03, 2012

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

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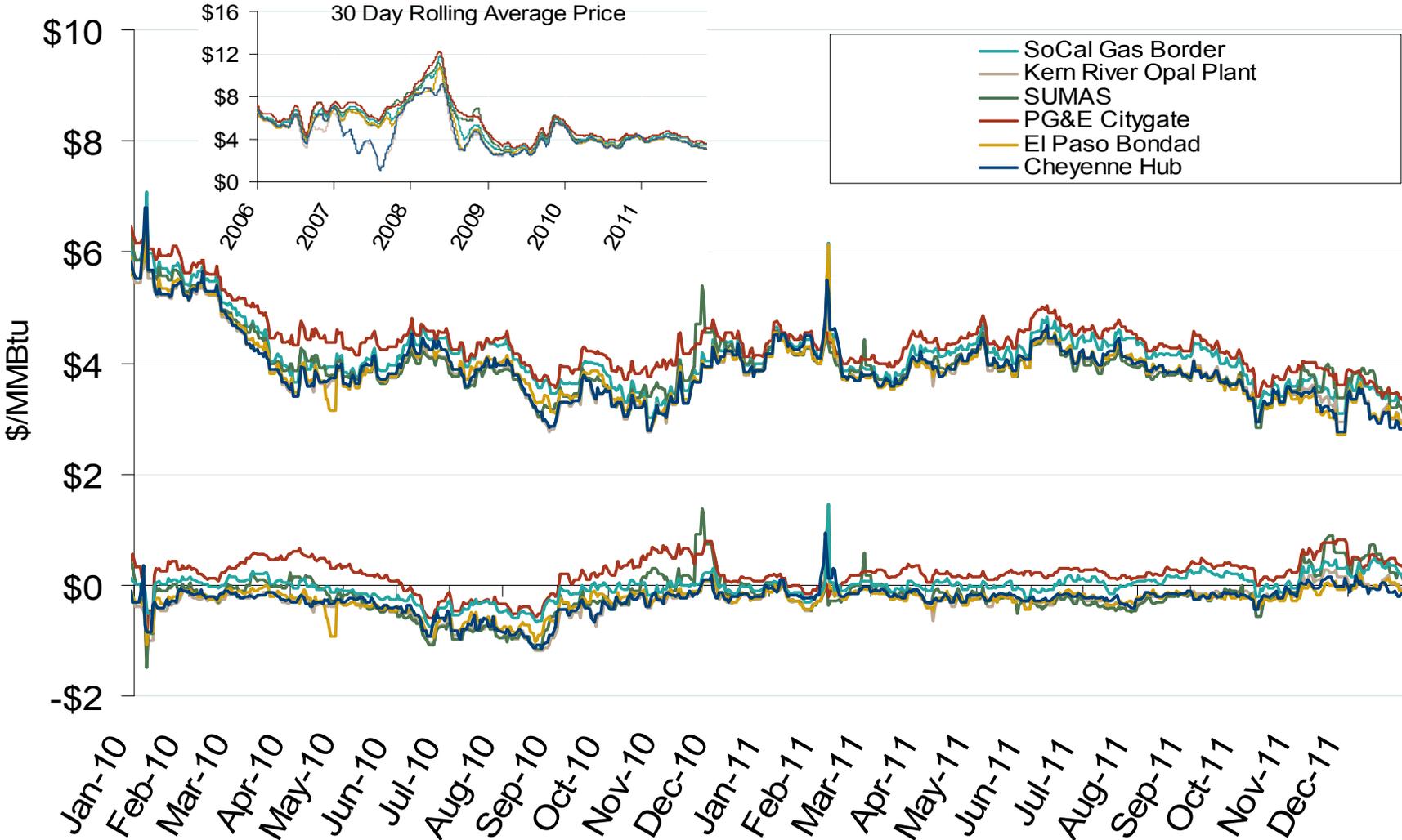
Henry Hub Natural Gas Daily Spot Prices



Source: Derived from Platts data
January 2012 Western Snapshot

Updated: January 03, 2012

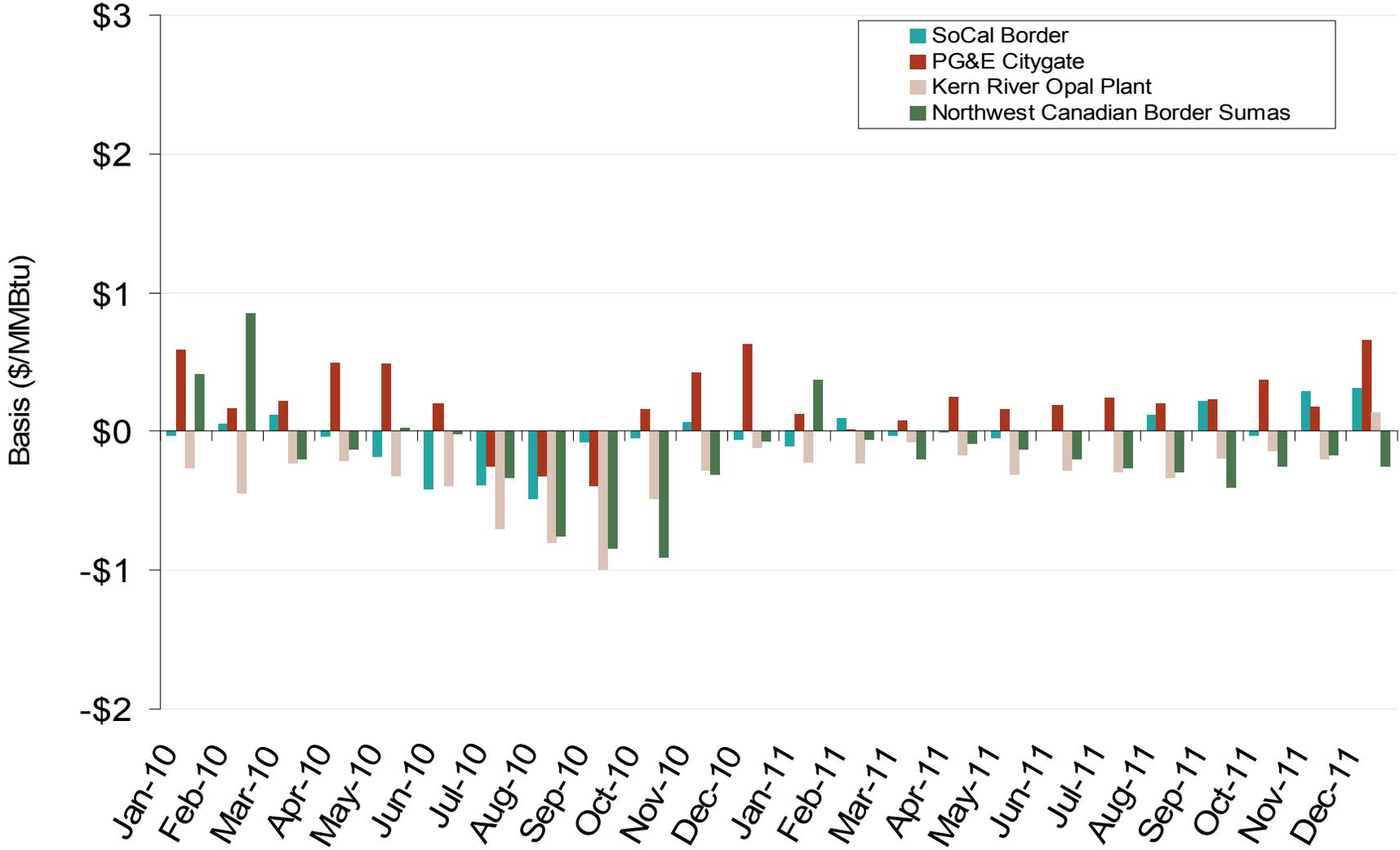
Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

Western Monthly Average Basis Value to Henry Hub

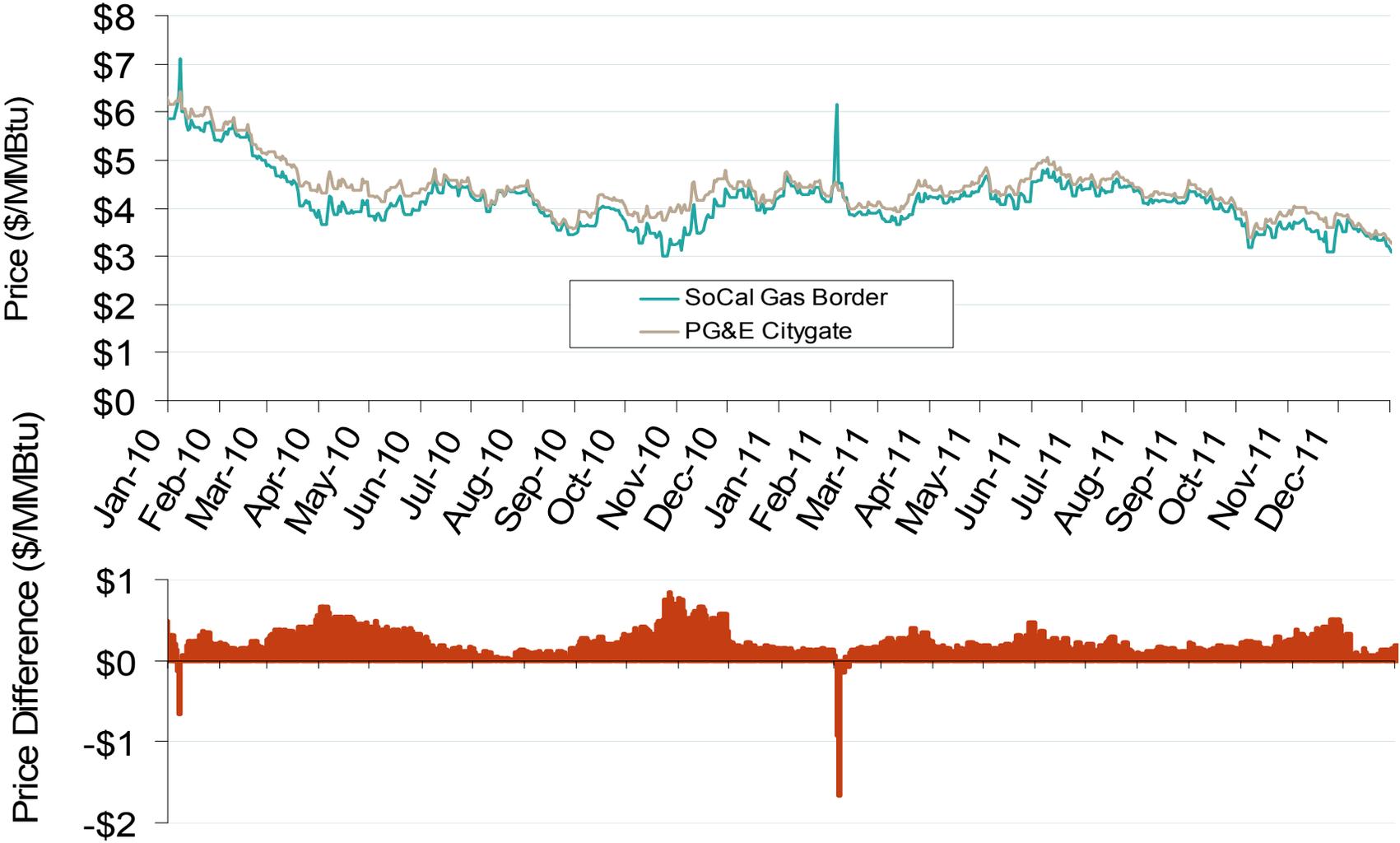


Source: Derived from Platts data
January 2012 Western Snapshot

Updated: January 03, 2012

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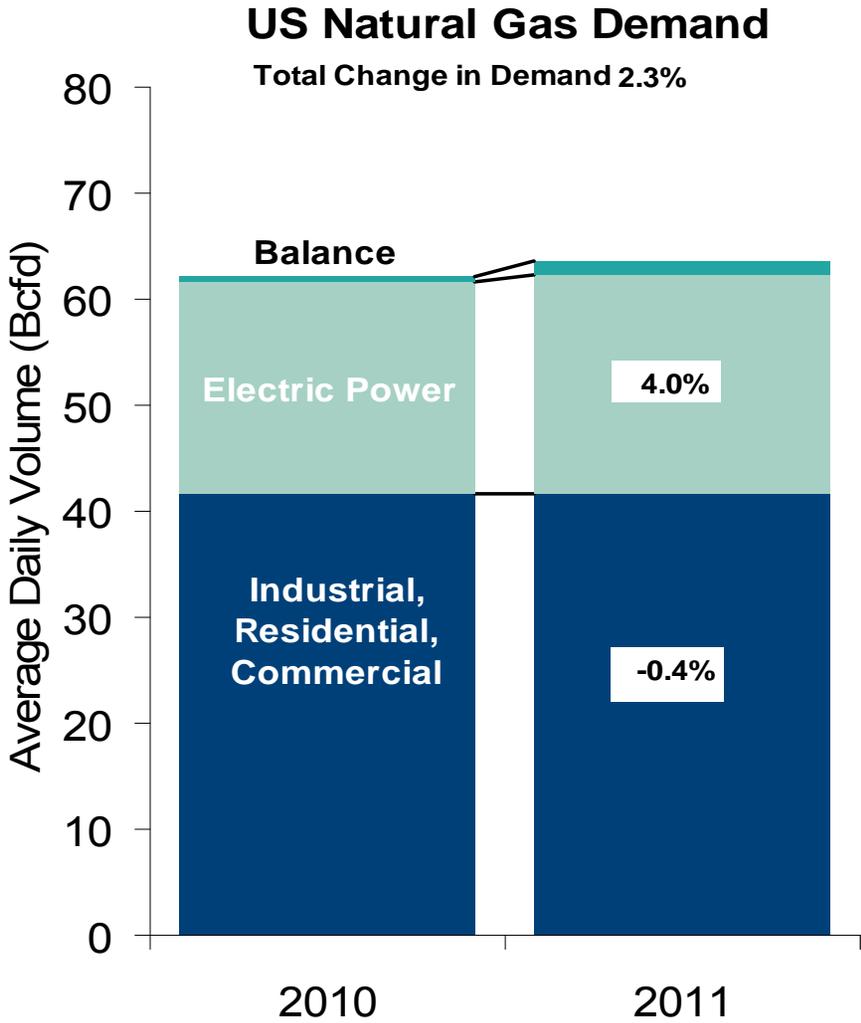
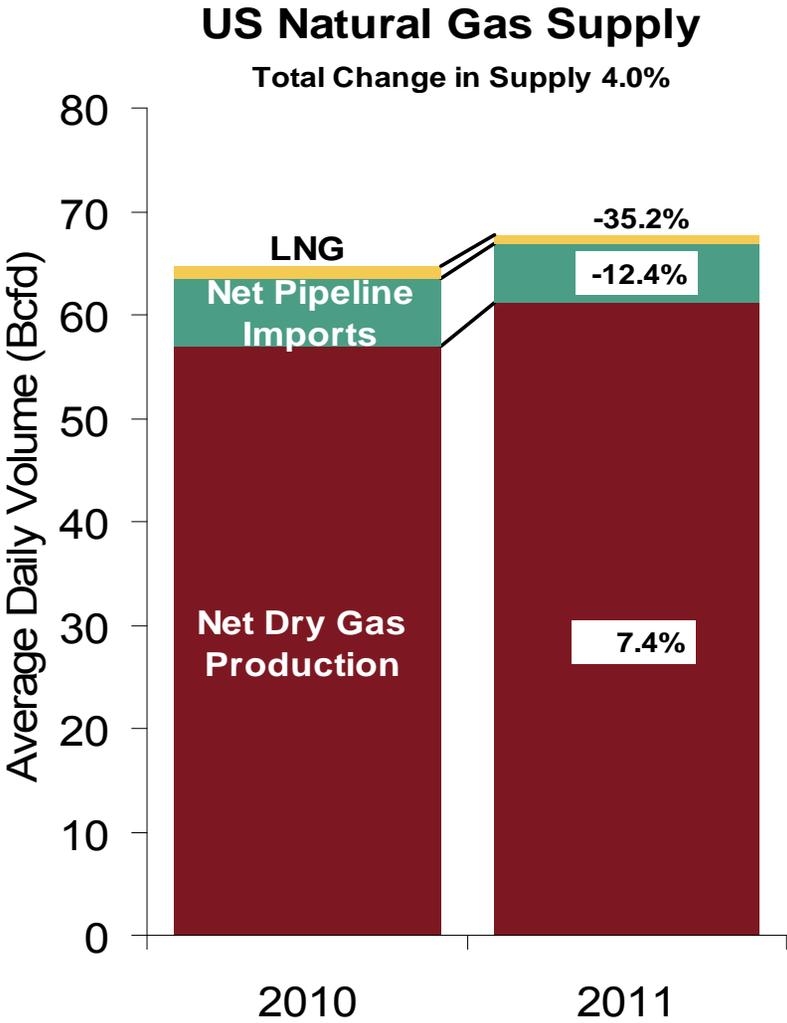
Difference in Northern and Southern California Daily Spot Prices



Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

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



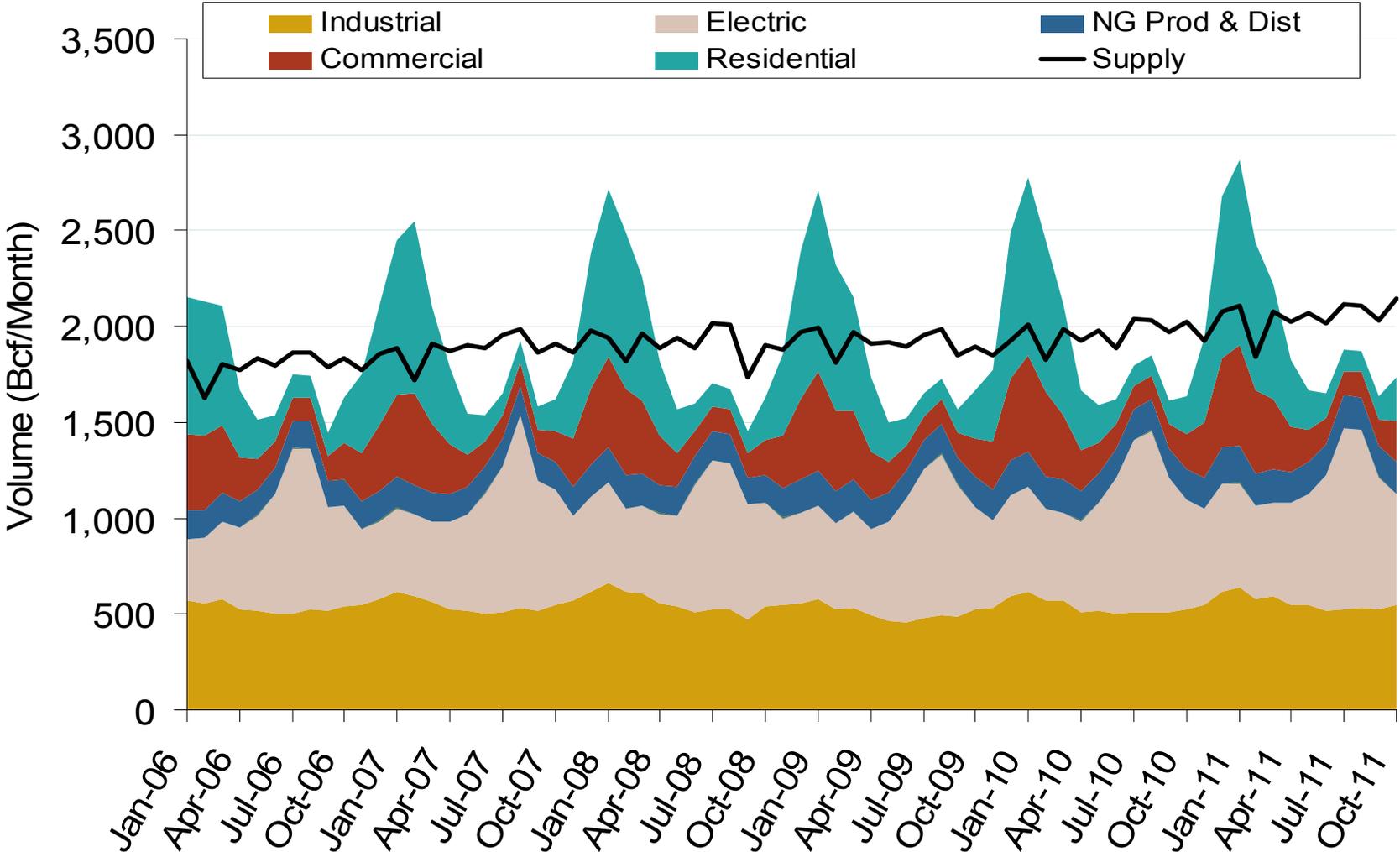
Note: Balance includes all amounts not attributable to other categories.

Source: Derived from Bentek Energy data

January 2012 Western Snapshot

Updated: January 13, 2012

Annual U.S. Natural Gas Consumption by Sector



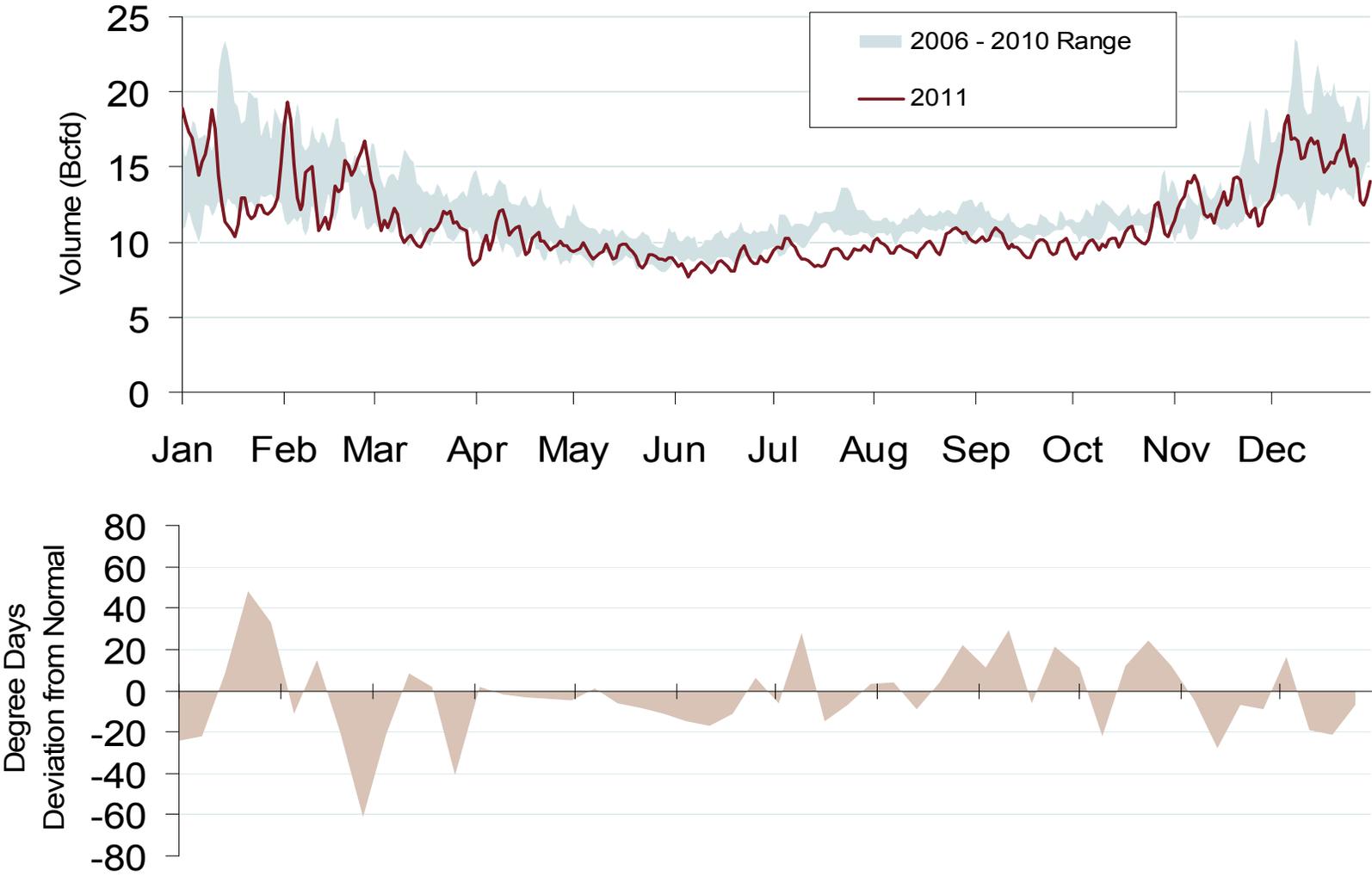
Notes: Supply includes lower 48 state production, net pipeline imports, and LNG imports

Source: Derived from EIA data

January 2012 Western Snapshot

Updated: January 04, 2012

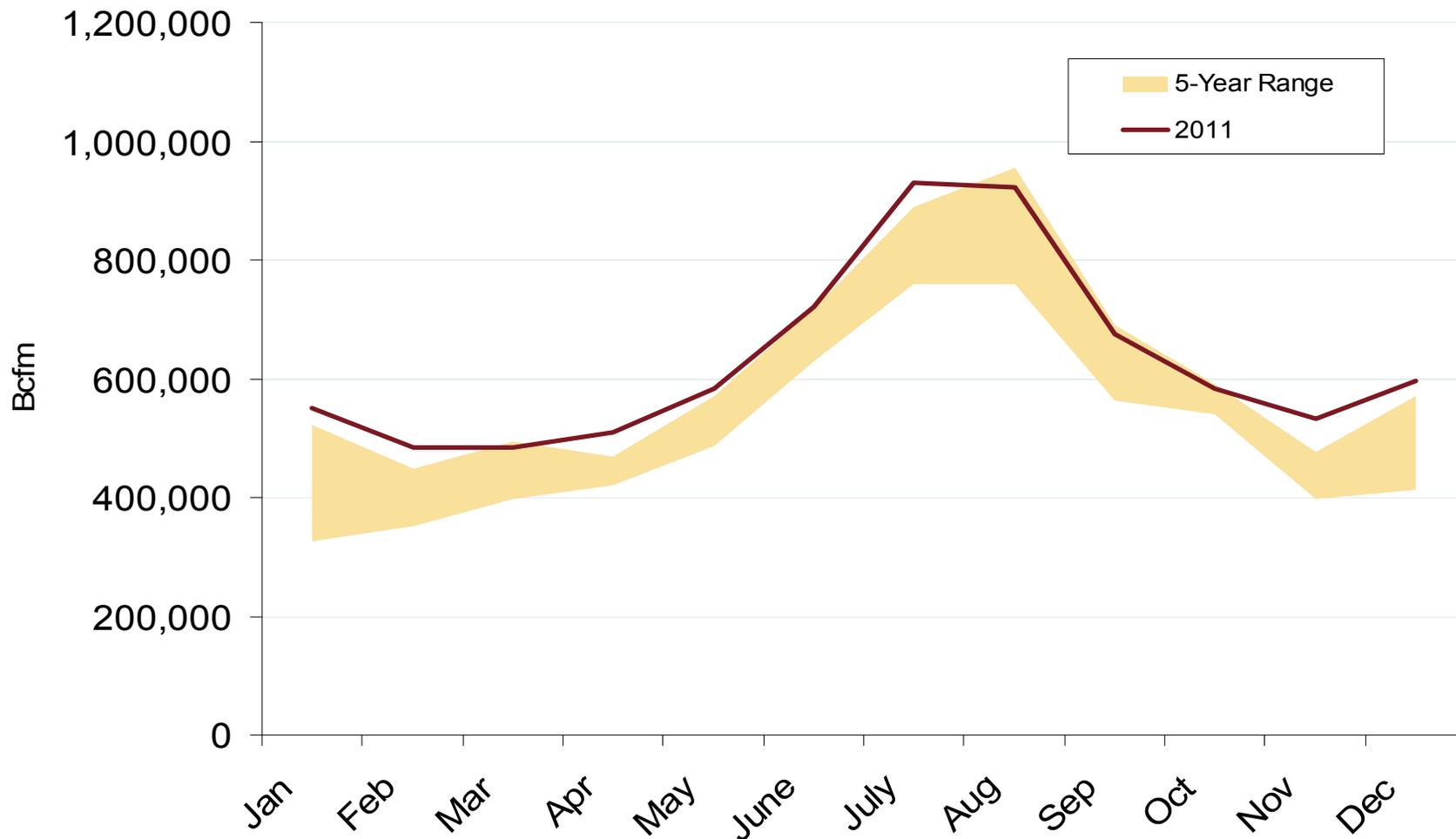
Daily Western Natural Gas Demand - All Sectors



Source: Derived from *Bentek Energy* and Weekly NOAA data
January 2012 Western Snapshot

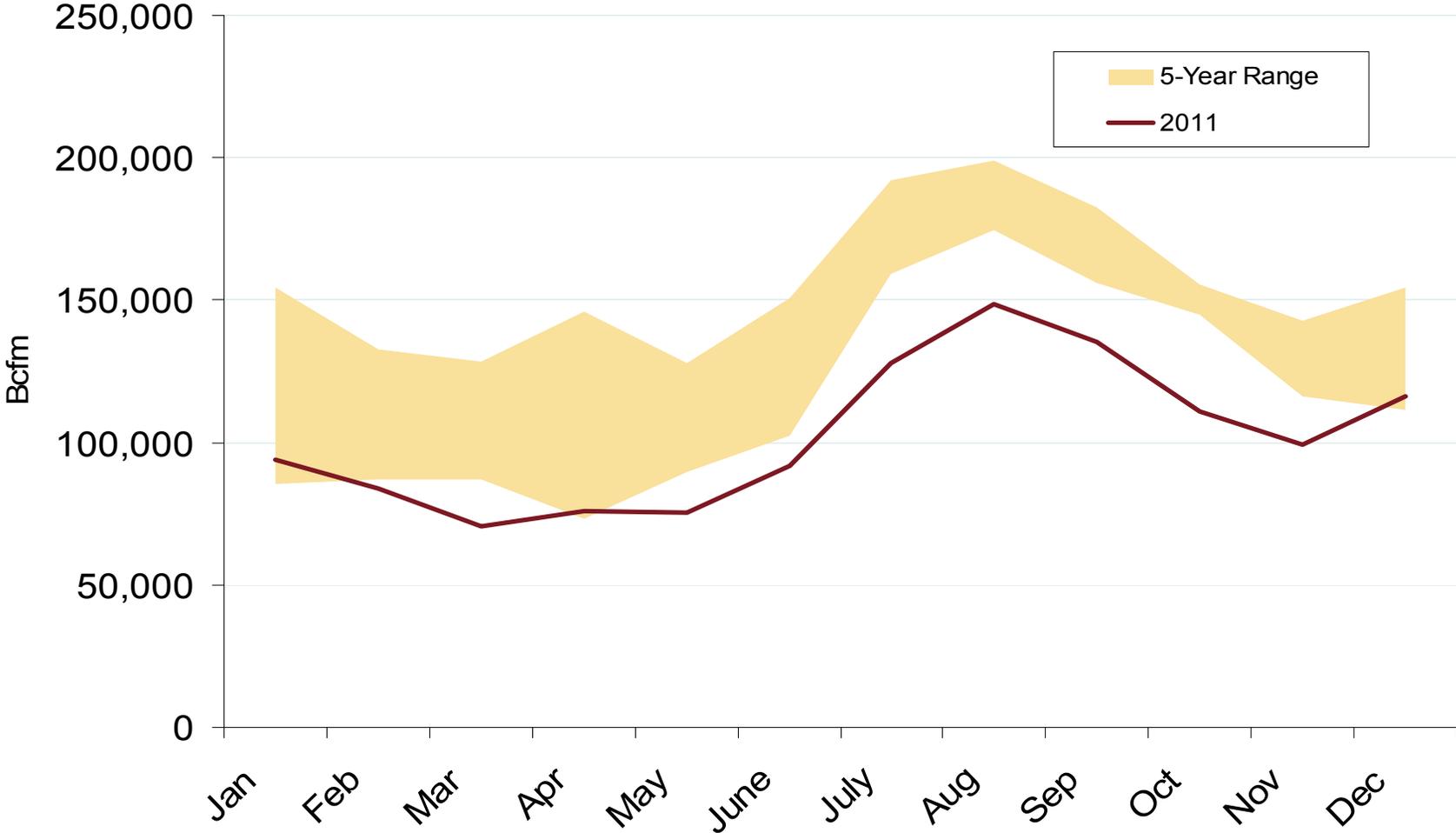
Updated: January 09, 2012

U.S. Natural Gas Consumption for Power Generation



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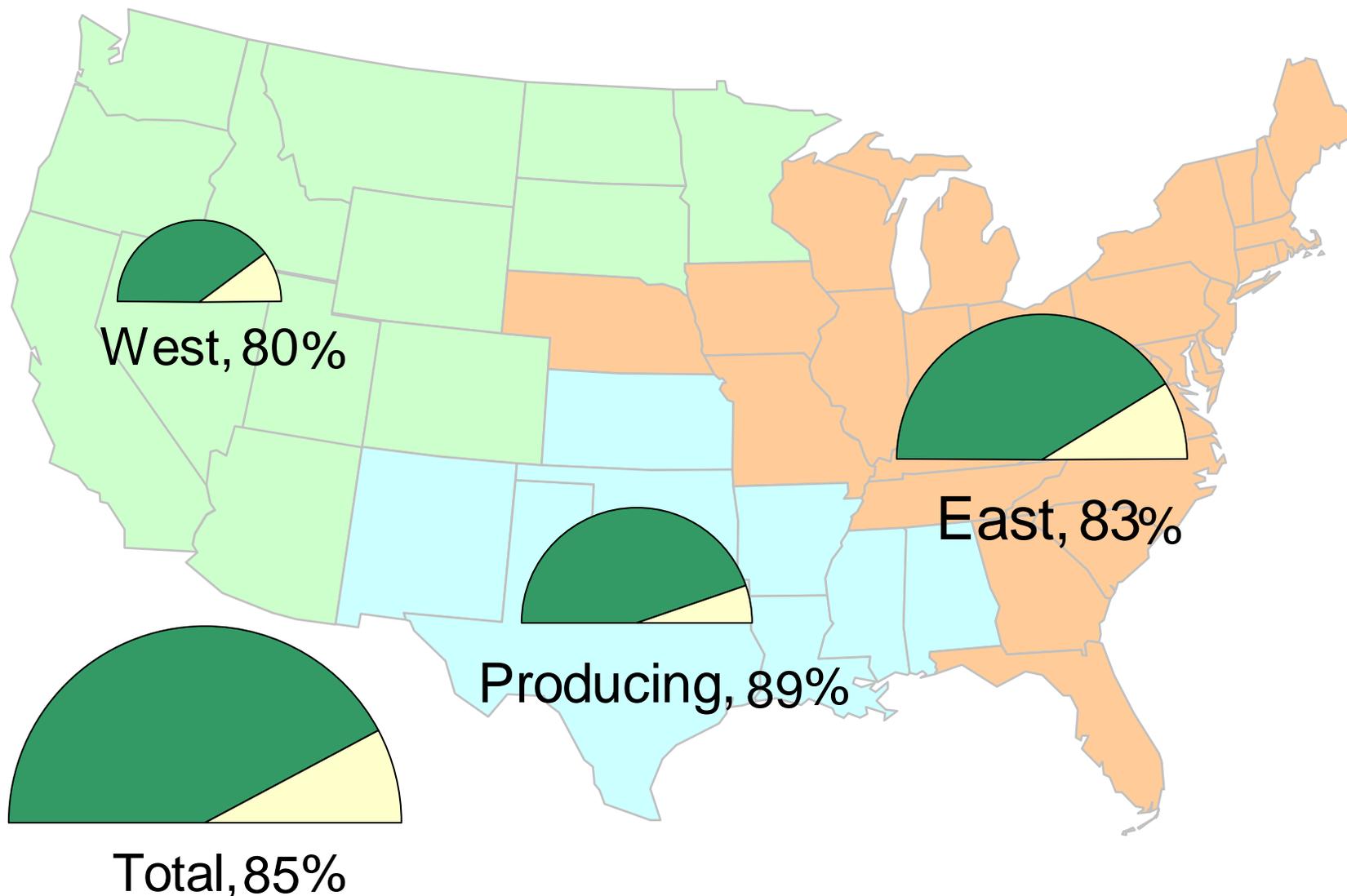
Western Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data
January 2012 Western Snapshot

Updated: January 09, 2012

Natural Gas Storage Inventories – December 30, 2011



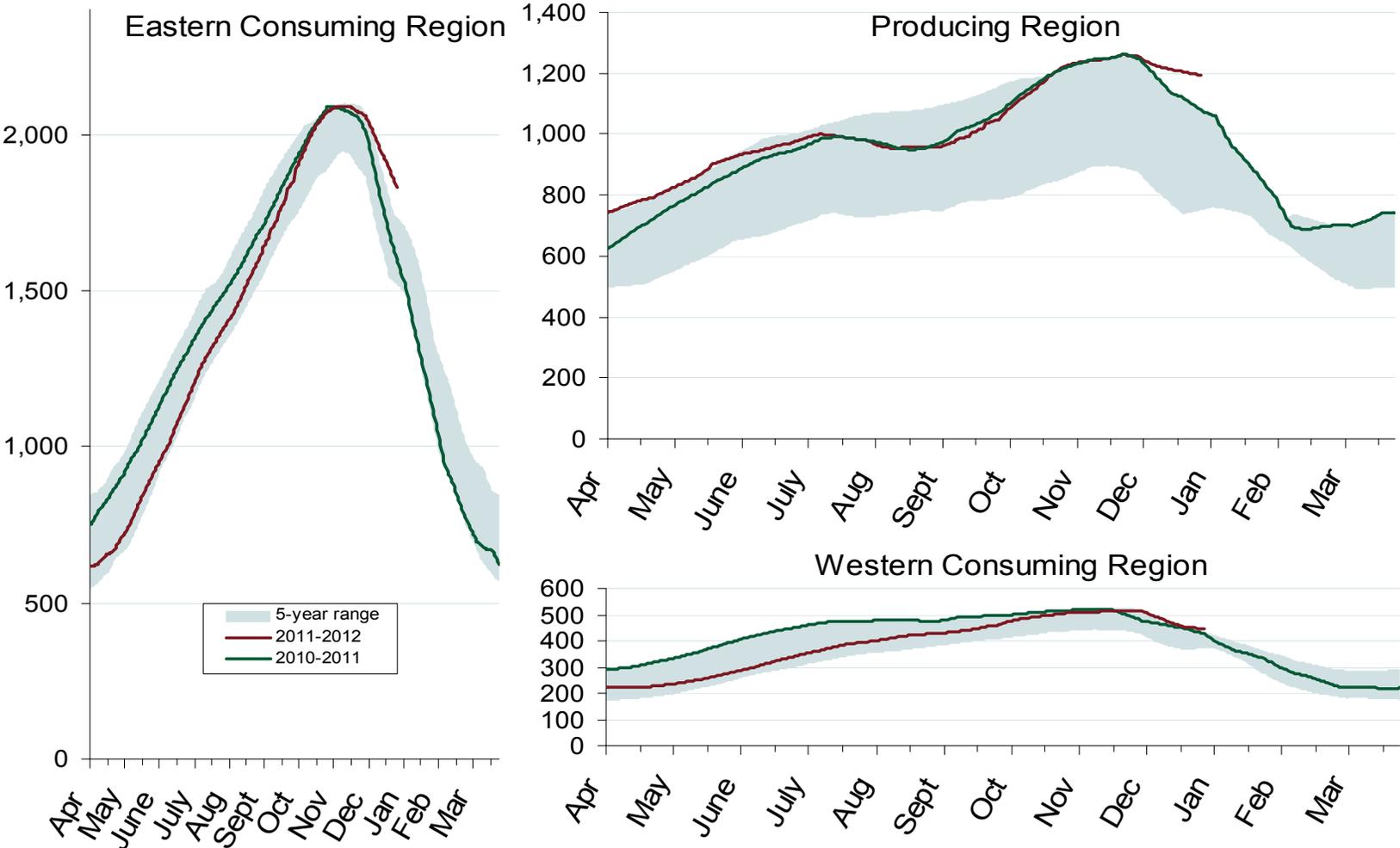
Source: Derived from EIA Storage and Estimated Working Gas Capacity data

January 2012 Western Snapshot

Updated January 3, 2012

20022

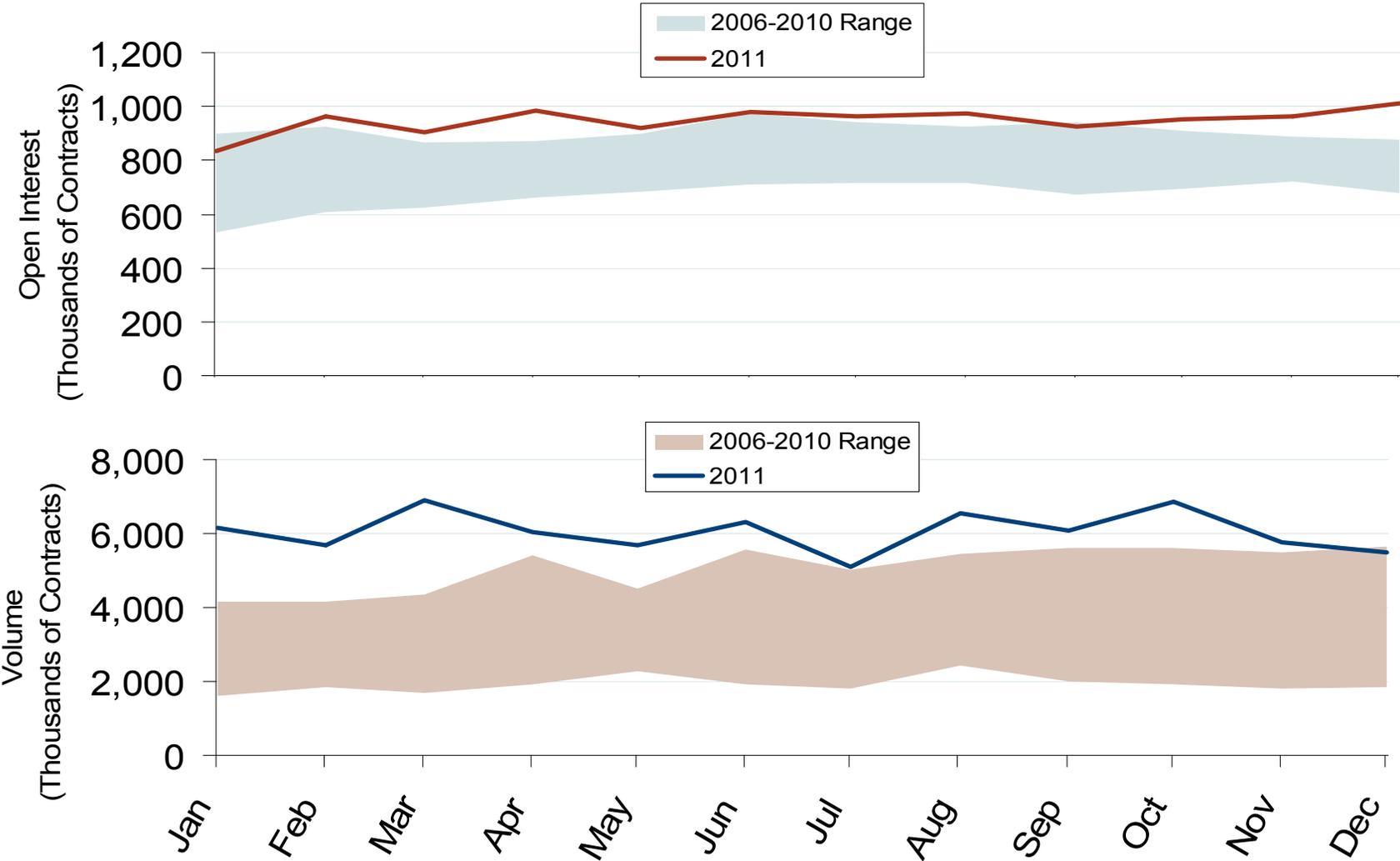
Regional Totals of Working Gas in Storage



Source: Derived from EIA data
January 2012 Western Snapshot

Updated: January 05, 2012

Nymex NG Futures Month-End Open Interest and Monthly Volume



Source: Derived from Nymex data
January 2012 Western Snapshot

Updated: January 04, 2012

Daily Physical Index Price & Daily Futures Settlement Price

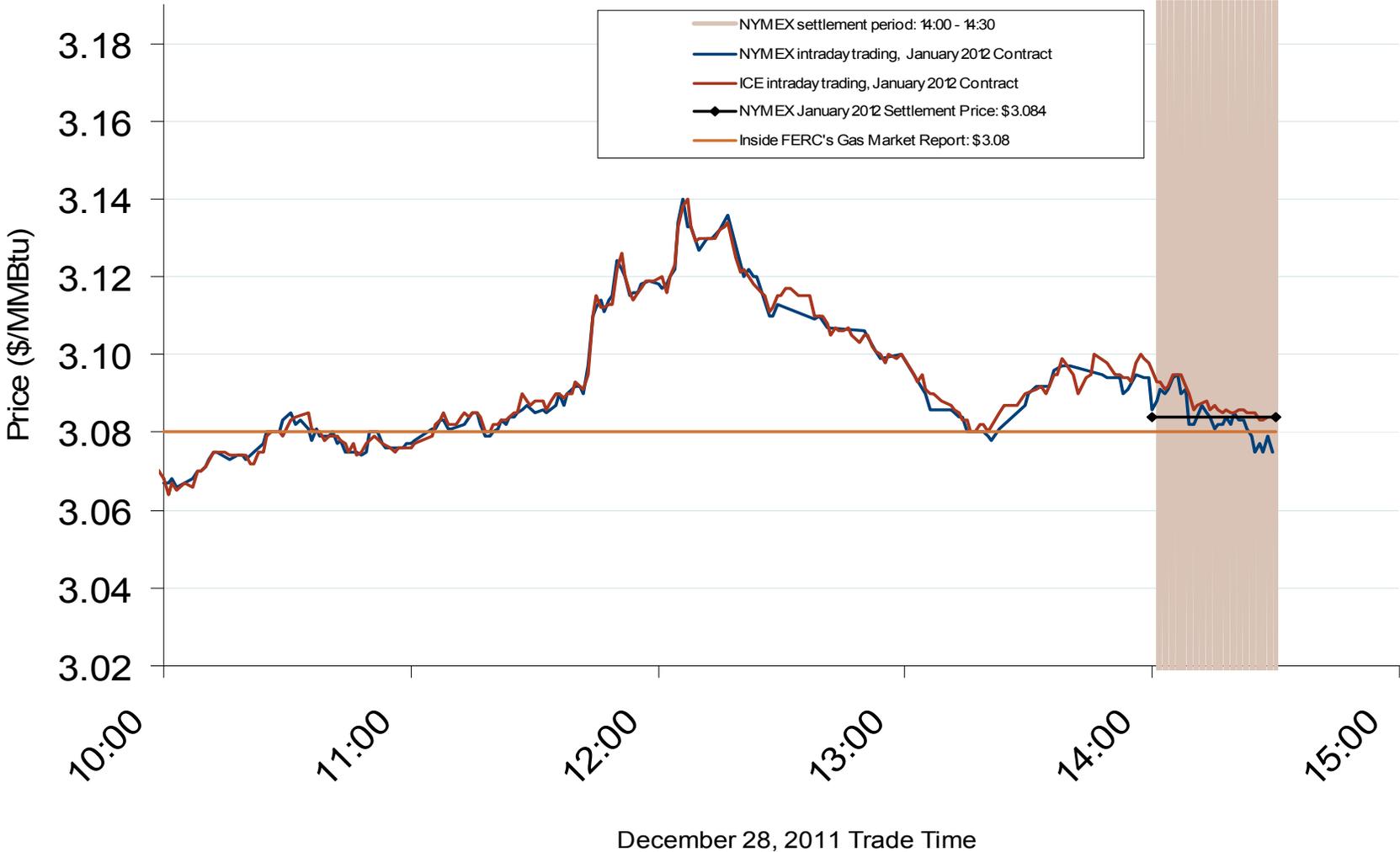


Source: Derived from *Bloomberg* data
January 2012 Western Snapshot

Updated: January 04, 2012

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Nymex and ICE Contract Final Settlement - January 2012



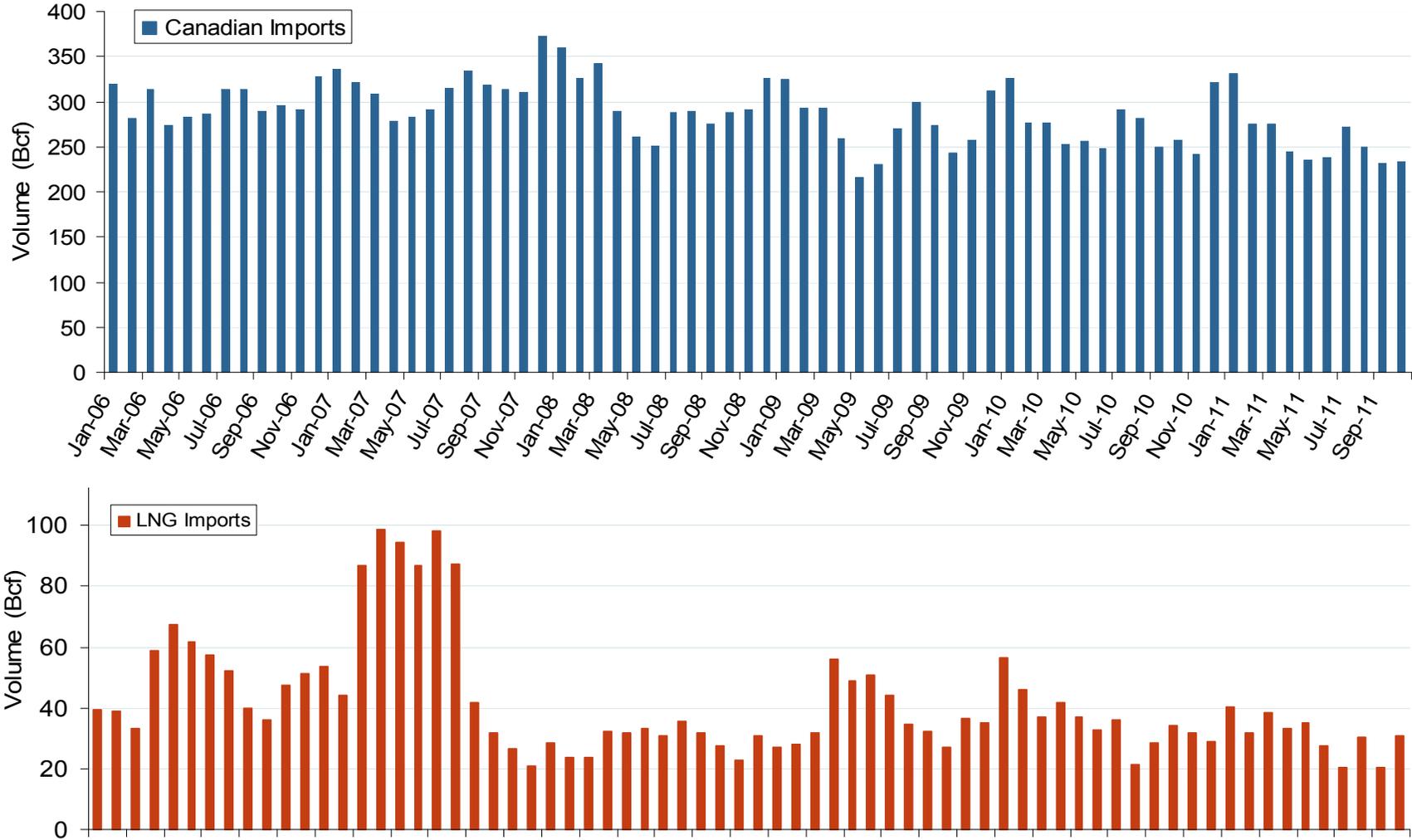
Notes: The final settlement day for this Nymex contract is three business days before the start of the contract term (which is the 1st day of the month)

Source: Derived from *Nymex* and *ICE* data
January 2012 Western Snapshot

Updated: January 04, 2012

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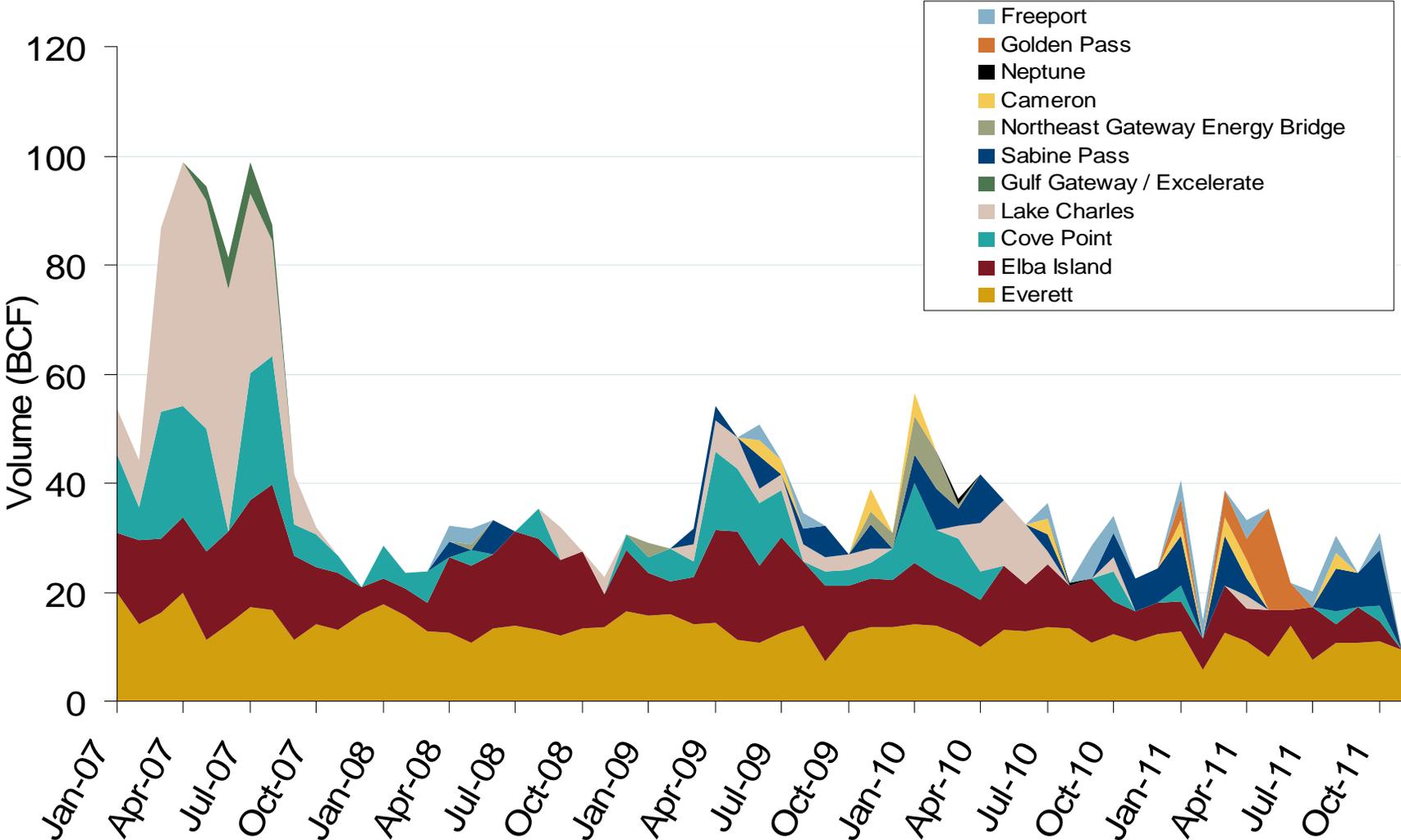
Canadian and LNG Natural Gas Imports Into the U.S.



Source: EIA Natural Gas Monthly
January 2012 Western Snapshot

Updated: January 04, 2012

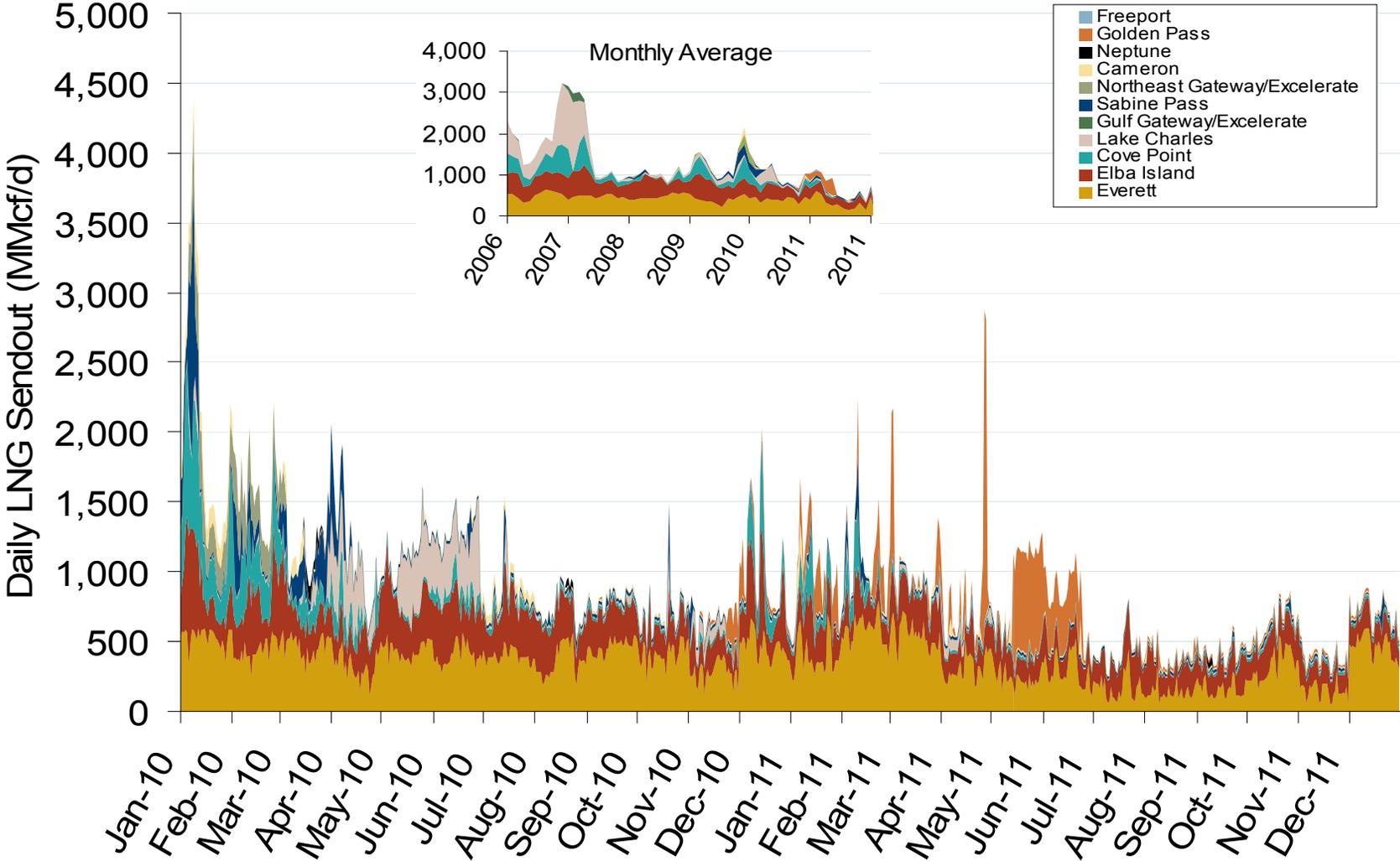
Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data
January 2012 Western Snapshot

Updated: January 05, 2012

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

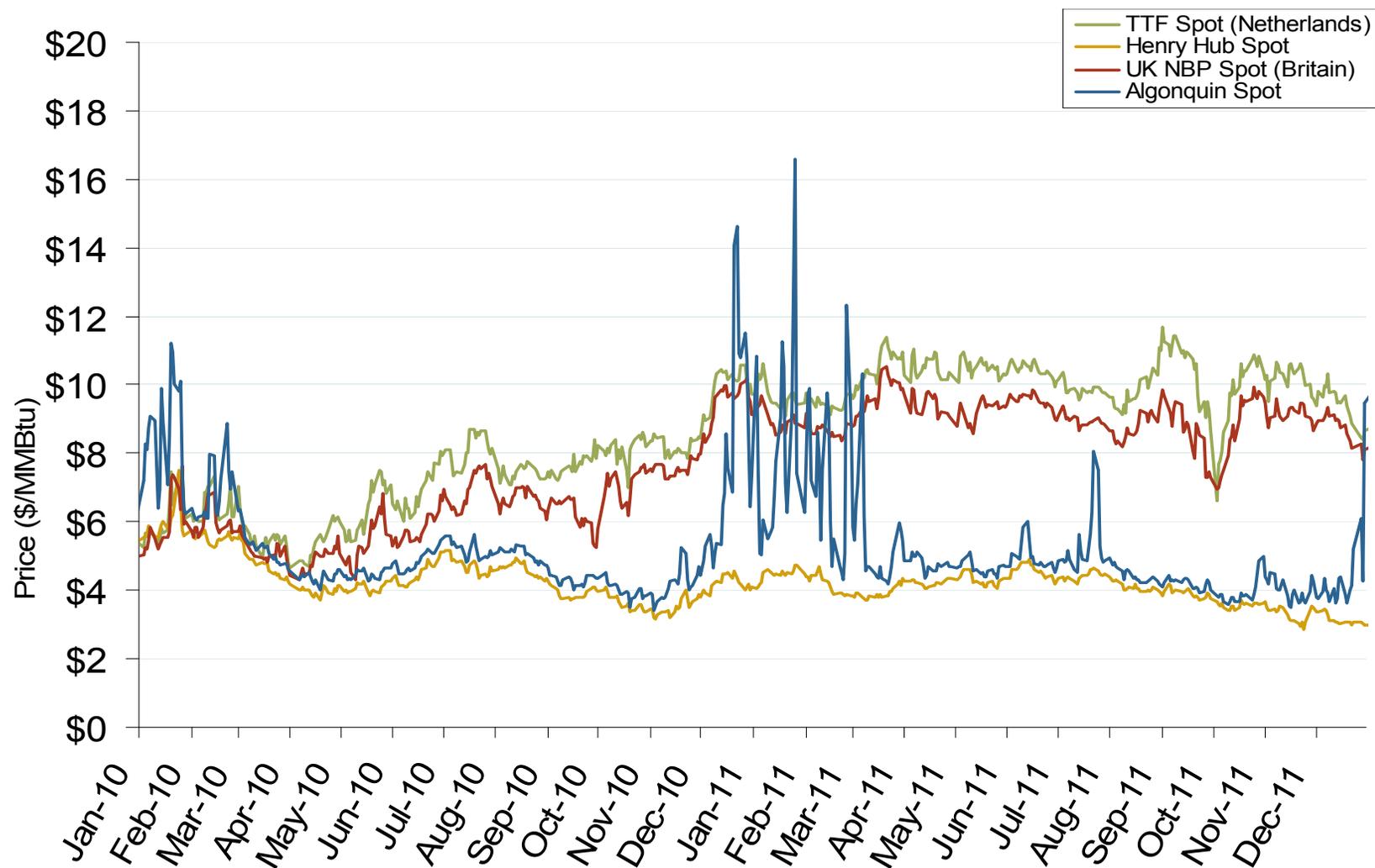
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World LNG Estimated February 2012 Landed Prices

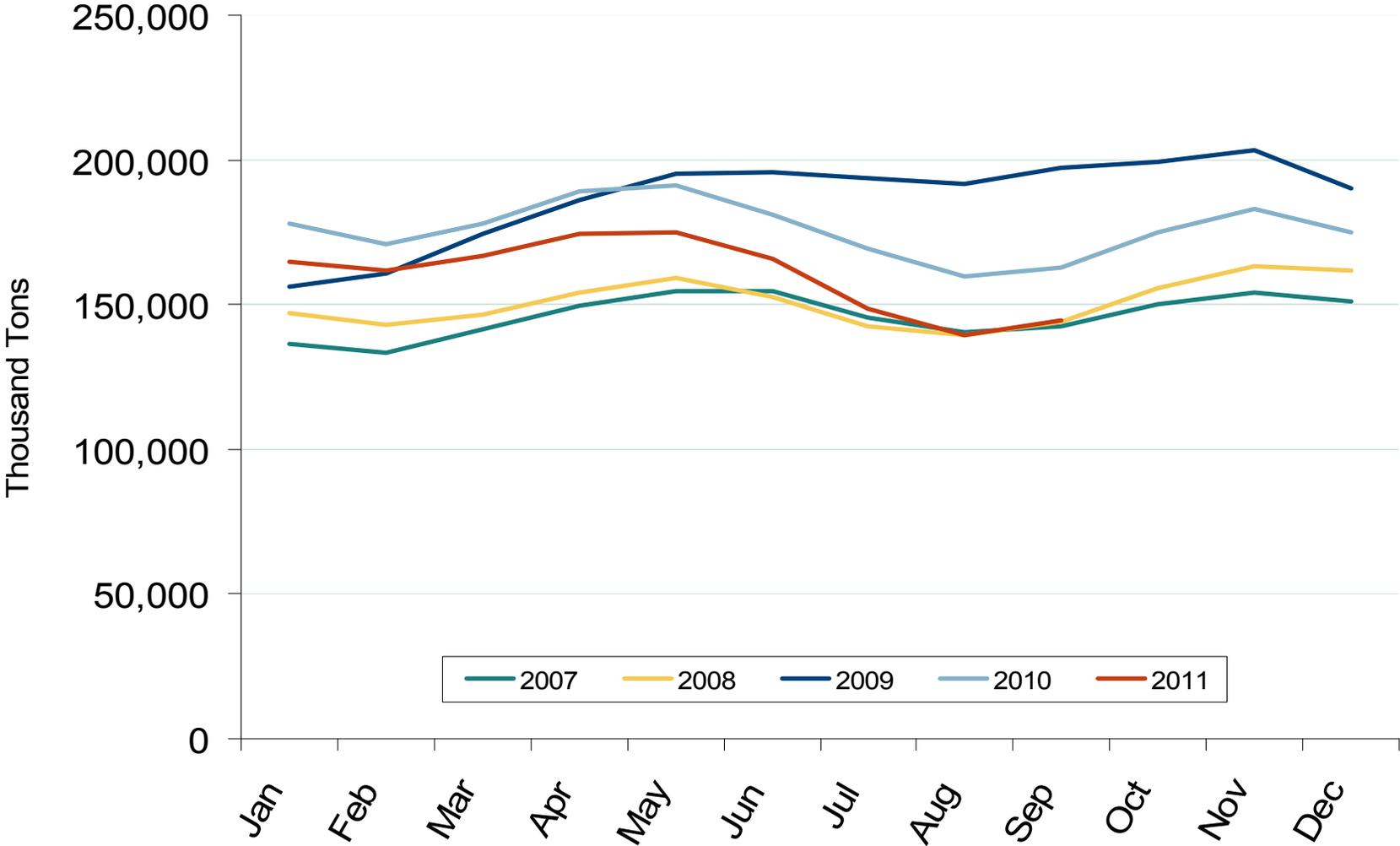


Source: Waterborne Energy, Inc. Data in \$US/MMBtu
January 2012 Western Snapshot

Atlantic Basin European and US Spot Natural Gas Prices

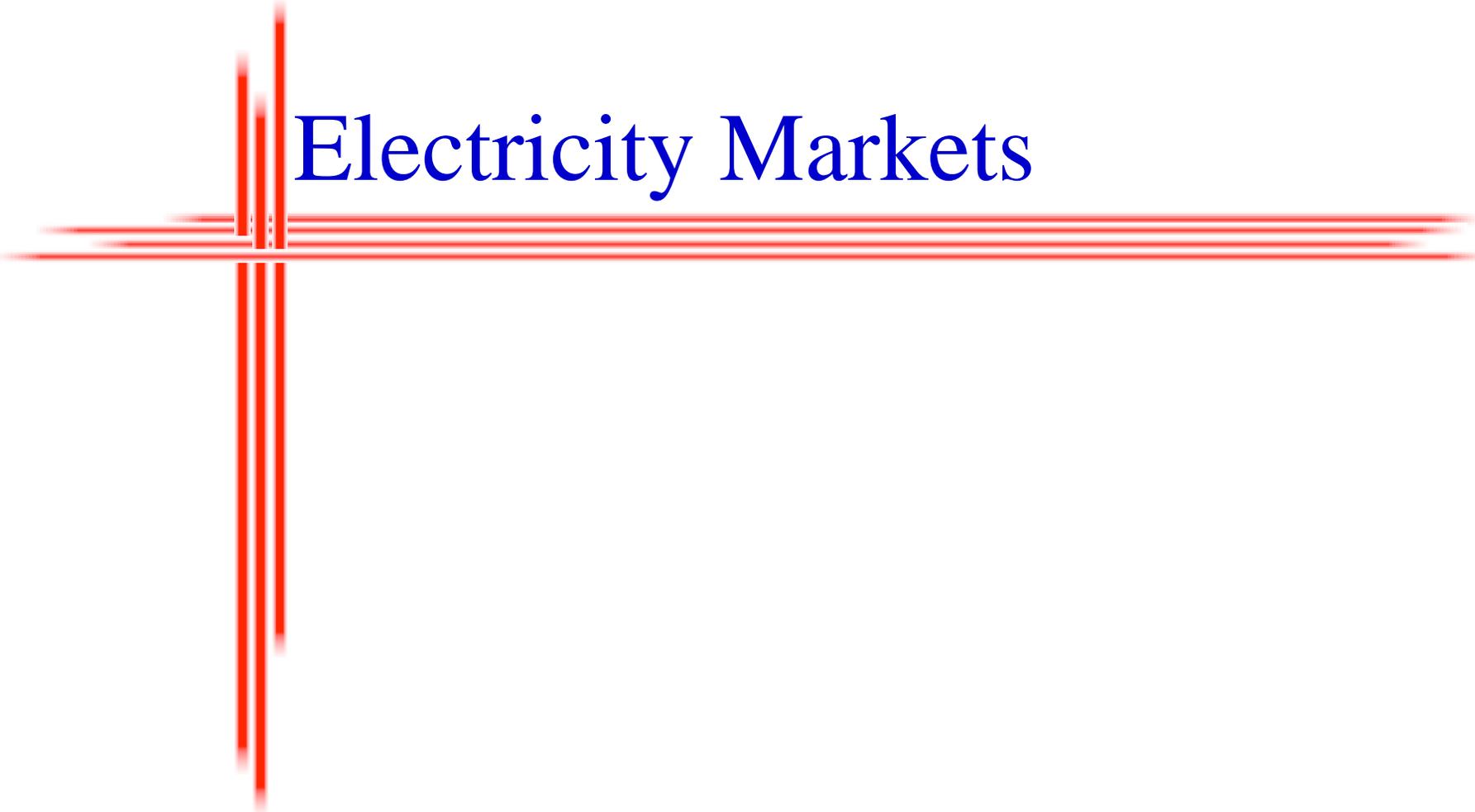


U.S. Coal Stockpiles at Electric Power Generating Facilities



Source: Derived from EIA data. Excludes Industrial and Commercial Plants
January 2012 Western Snapshot

Updated: January 04, 2012



Electricity Markets

Southwest Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2007	2008	2009	2010	2011	5-Year Avg
Four Corners	\$63.21	\$71.84	\$35.38	\$39.68	\$36.36	\$53.74
Palo Verde	\$61.74	\$71.87	\$34.77	\$38.76	\$36.12	\$52.96
Mead	\$64.49	\$75.63	\$36.58	\$40.11	\$36.94	\$55.36

California Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2007	2008	2009	2010	2011	5-Year Avg
NP15	\$66.59	\$80.14	\$39.29	\$40.08	\$35.83	\$57.45
SP15	\$66.48	\$79.36	\$38.31	\$40.21	\$36.90	\$57.28

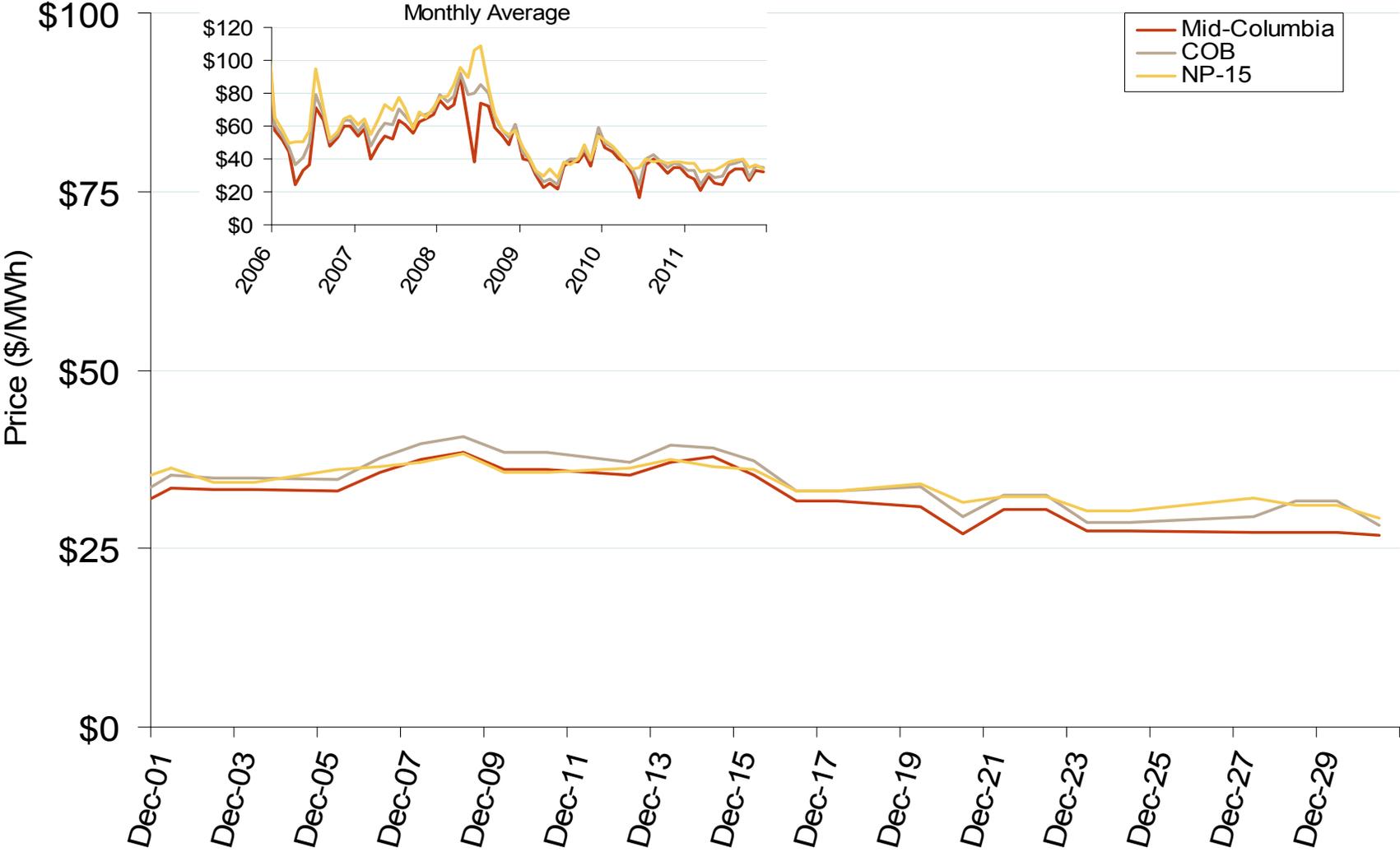
Northwest Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2007	2008	2009	2010	2011	5-Year Avg
Mid-Columbia (Mid-C)	\$56.57	\$65.00	\$35.66	\$35.90	\$29.11	\$48.67
California-Oregon Border (COB)	\$62.14	\$73.86	\$38.02	\$38.84	\$32.57	\$53.70

Northwest Electric Market: Last Month's Northwestern Bilateral Prices

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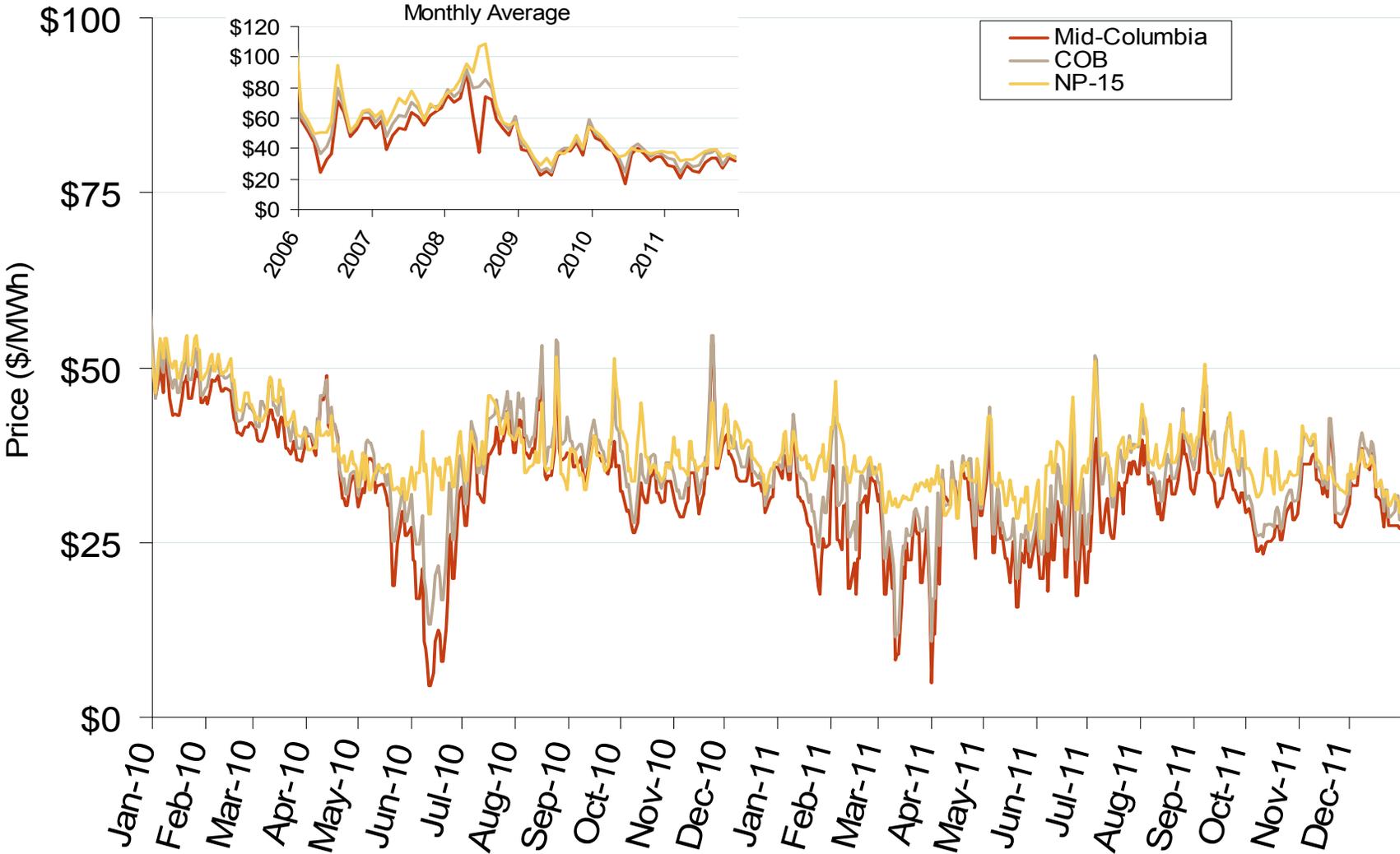
Northwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

Northwestern Daily Bilateral Day-Ahead On-Peak Prices

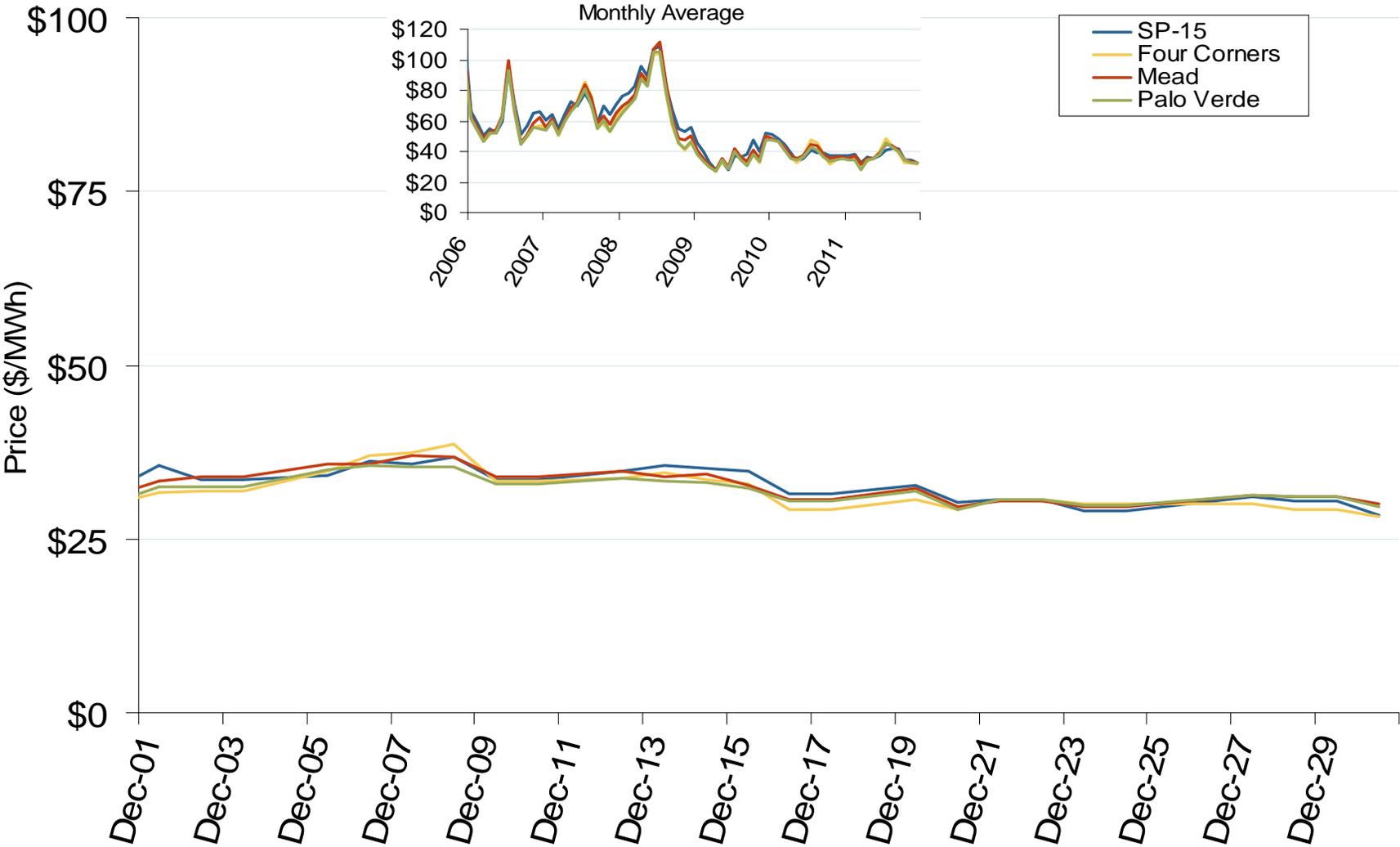


Source: Derived from Platts data
January 2012 Western Snapshot

Updated: January 03, 2012

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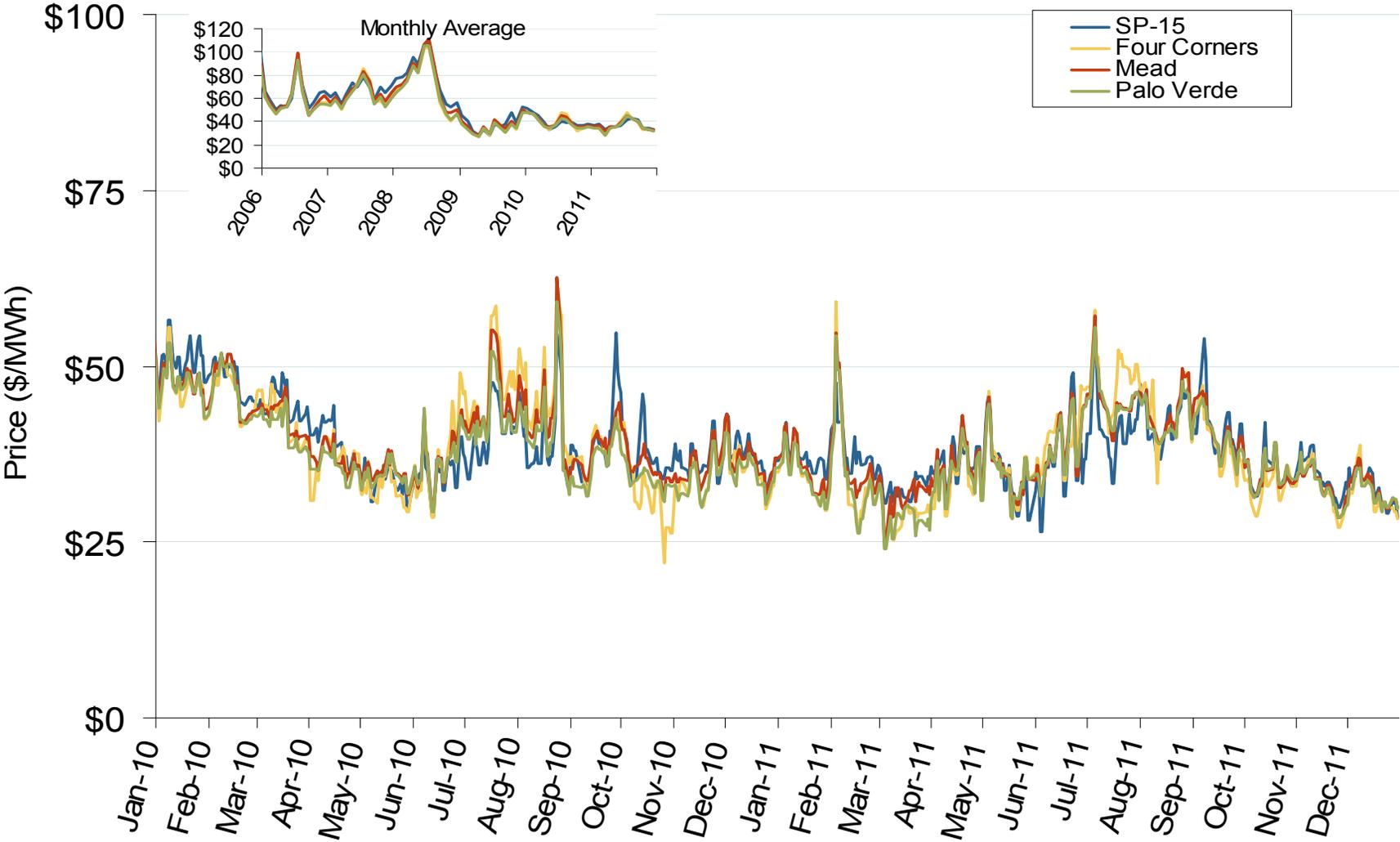
Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

Southwestern Daily Bilateral Day-Ahead On-Peak Prices

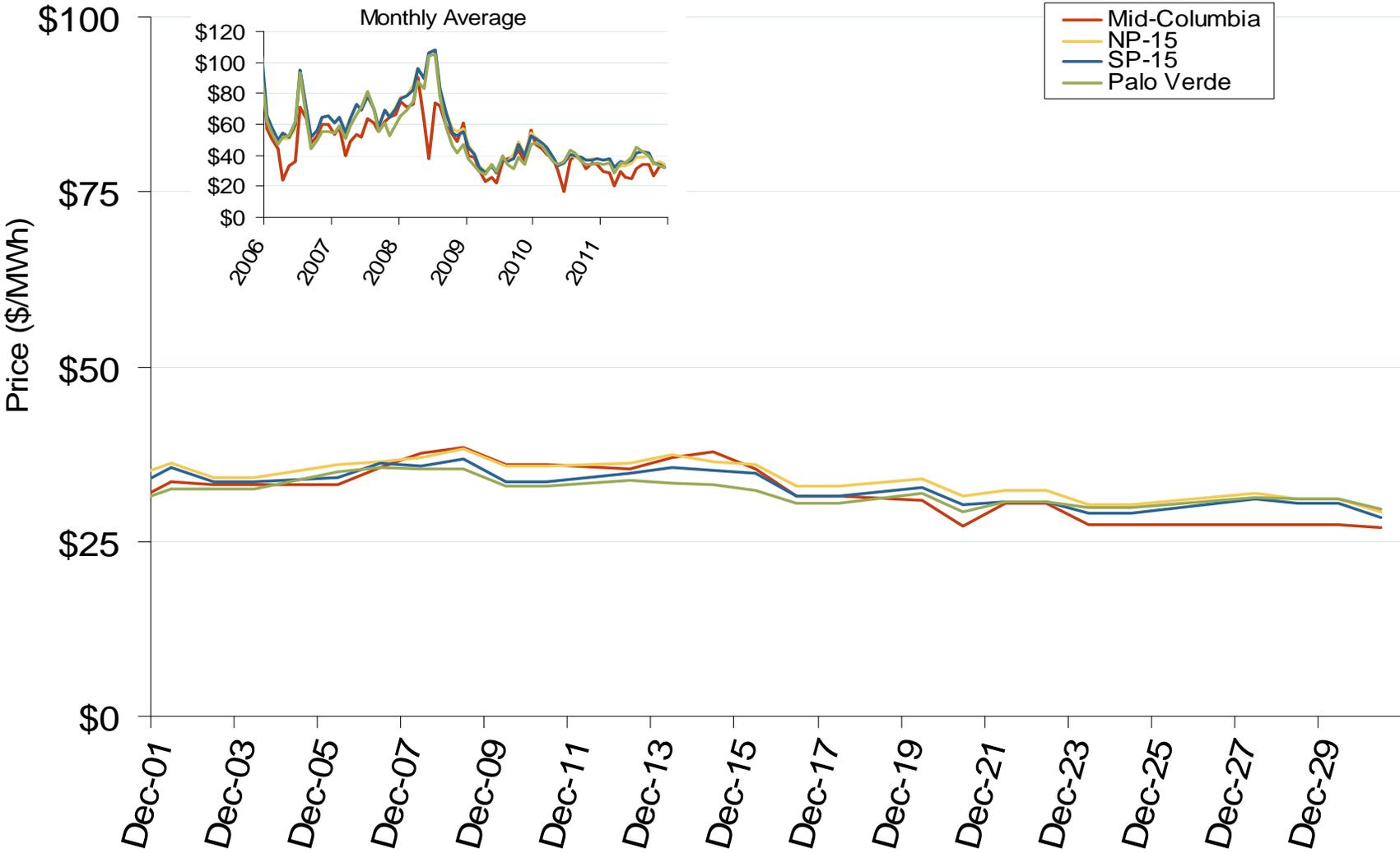


Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

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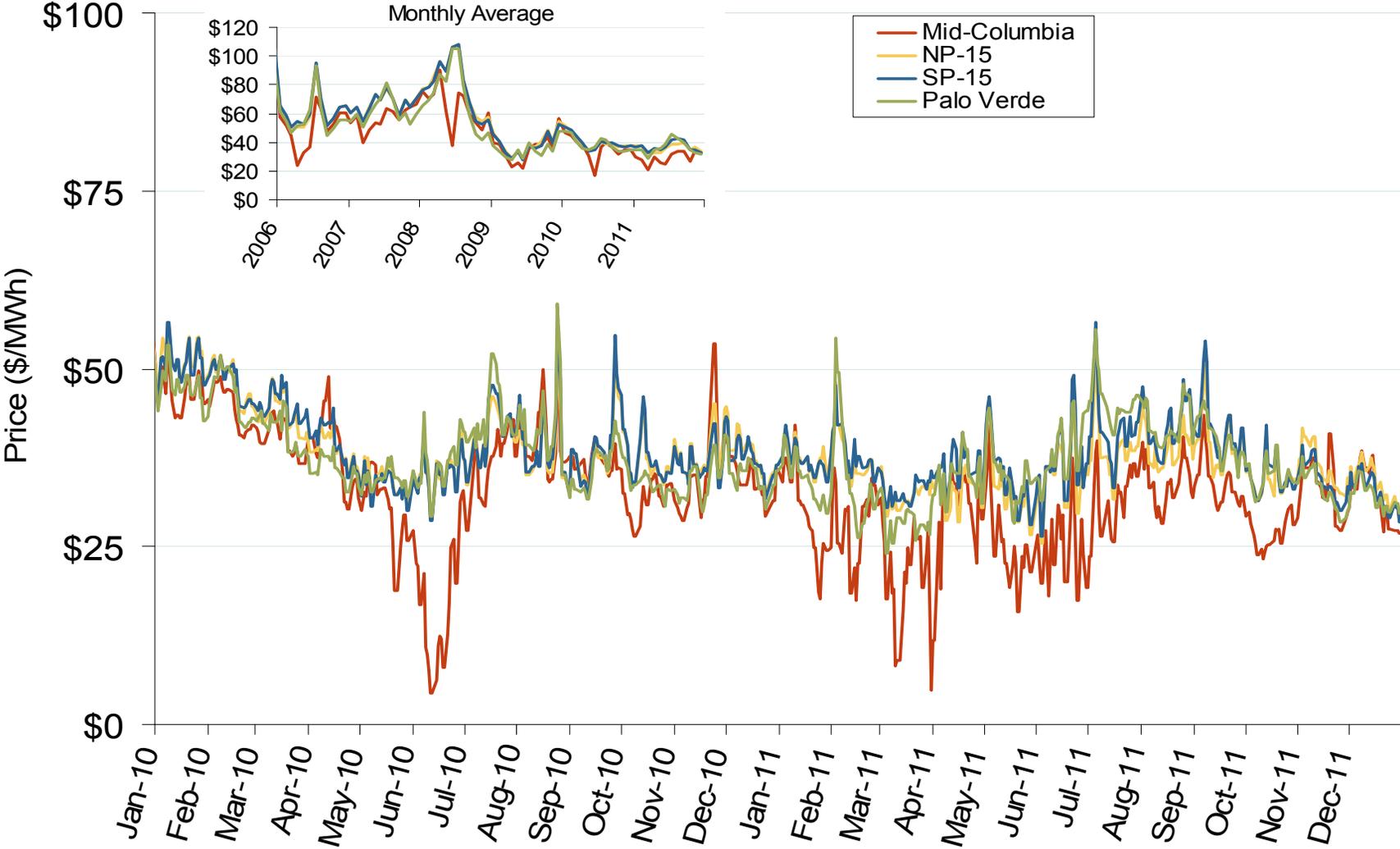
Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data
January 2012 Western Snapshot

Updated: January 03, 2012

Western Daily Bilateral Day-Ahead On-Peak Prices



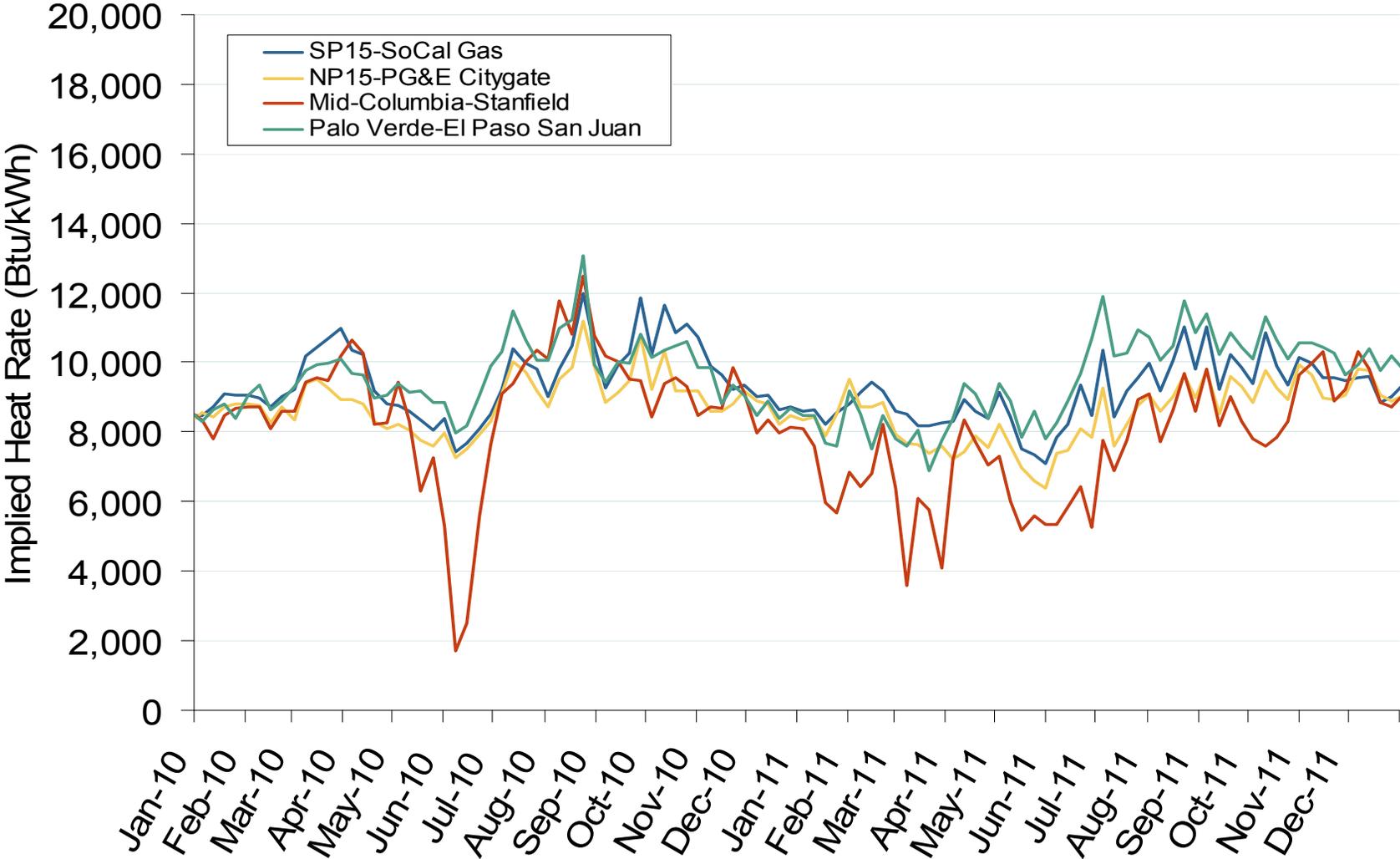
Source: Derived from *Platts* data
January 2012 Western Snapshot

Updated: January 03, 2012

Southwest Electric Market: Western Implied Heat Rates

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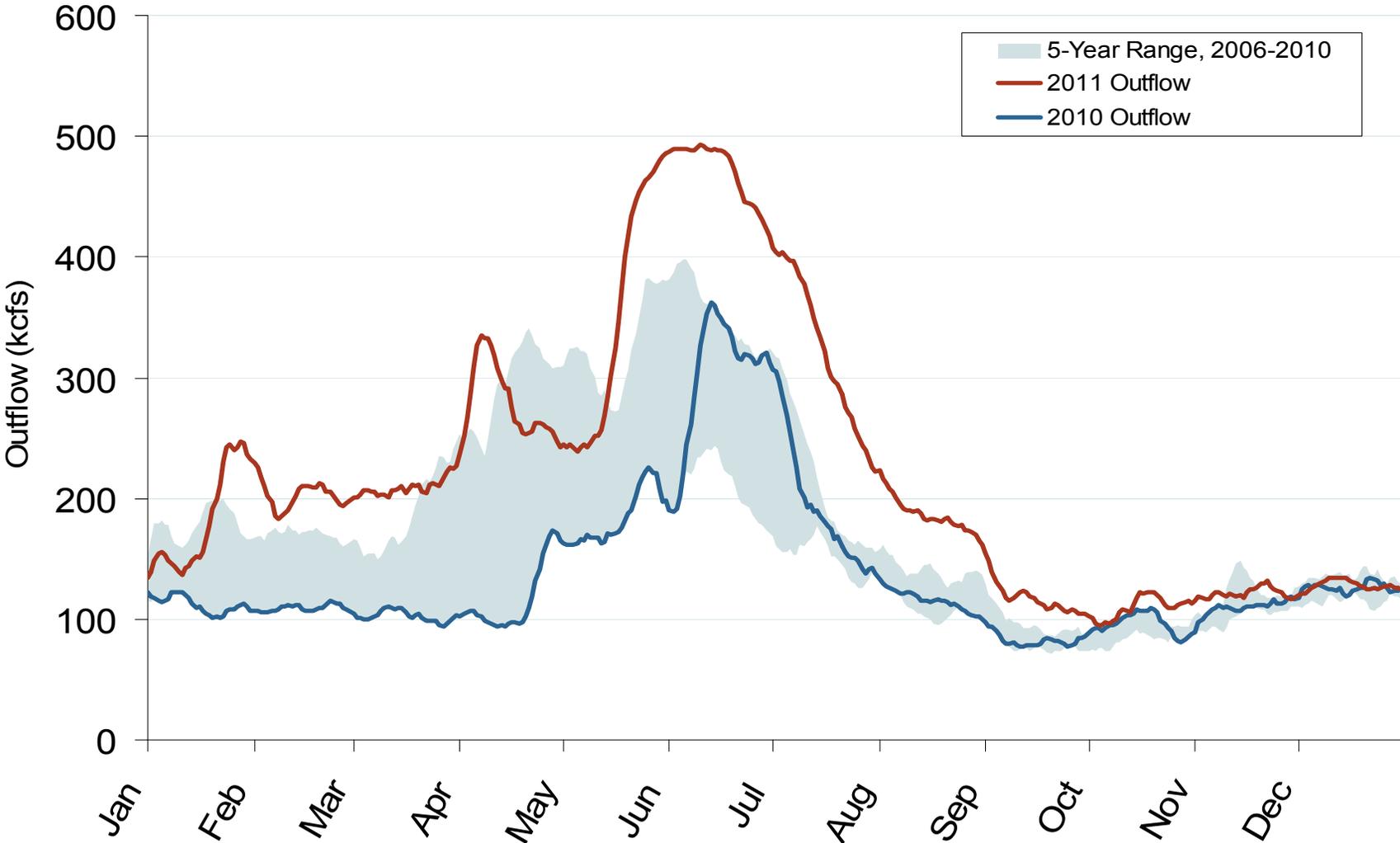
Implied Heat Rates at Western Trading Points - Weekly Avgs.



Source: Derived from *Platts* on-peak electric and natural gas price data
January 2012 Western Snapshot

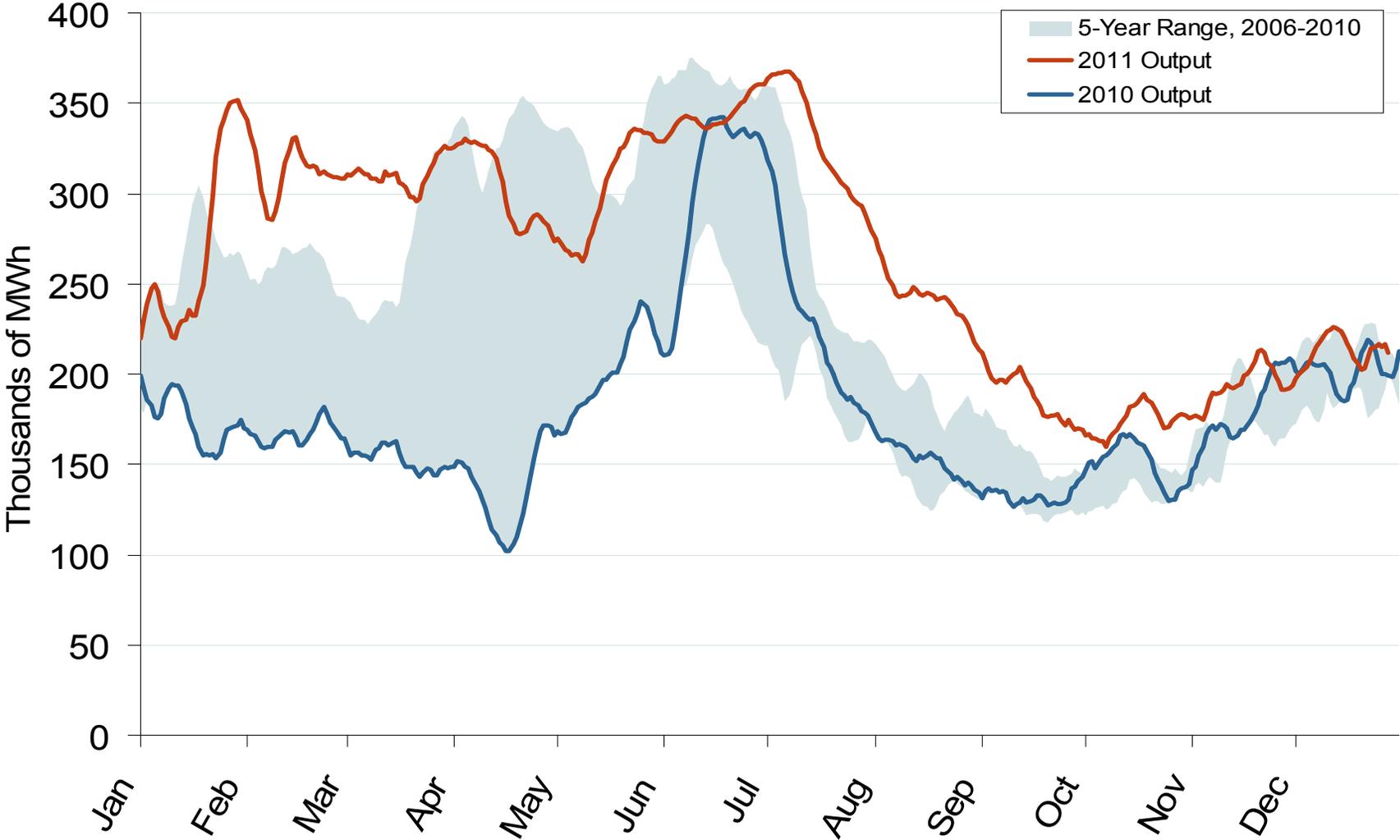
Updated: January 03, 2012

Stream Flows at the Dalles Dam



Notes: Trend lines are 7-day moving averages
Source: Derived from USACE data
January 2012 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

January 2012 Western Snapshot

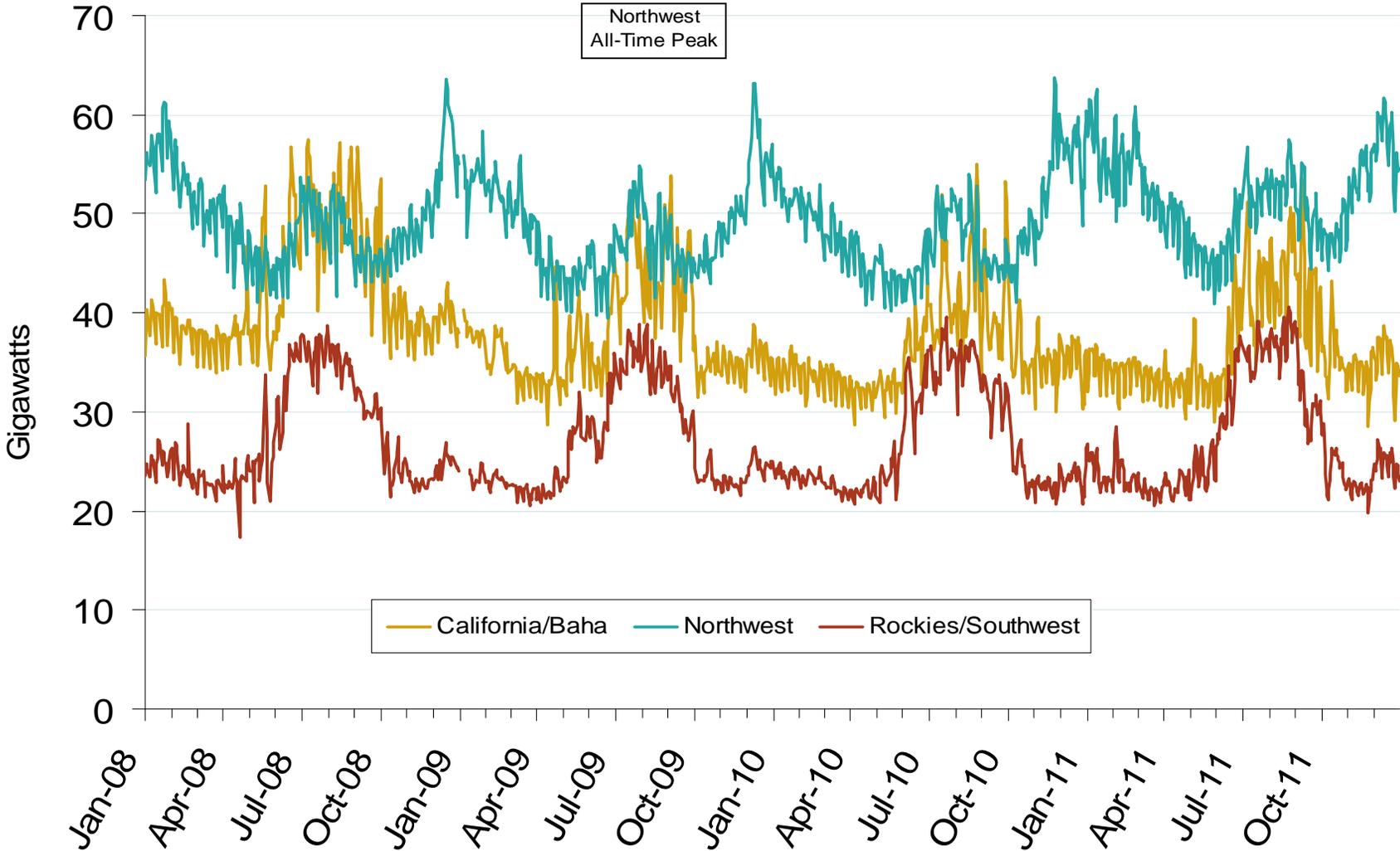
Updated: January 05, 2012

Pacific/Northwest Hydro and Snowpack Levels

	Hydro Generation		Snow Water Equivalent ³		
	In-State Capacity (MW) ¹	Additional Capacity Created Downstream (MW) ²	One Year Ago (1/6/11) (% of historical average)	Current (1/9/12) (% of historical average)	% Change from One Year Ago
Washington	21,500	0	94%	78%	-16%
Oregon	9,100	0	120%	38%	-82%
California	10,400	0	200%	29%	-171%
Idaho	2,700	19,700	117%	56%	-61%
Montana	2,700	16,200	99%	75%	-24%
British Columbia	10,000	16,200	80%	109%	+29%

- ¹ Net summer capacity in megawatts by state (EIA).
- ² Approximate electric capacity created by water flow through the downstream states (EIA and BPA). The capacity estimates reflect the water flow pattern of the series of hydro facilities on the Snake and Columbia Rivers.
- ³ Snow Water Equivalent, in percent of the historical average for the same date, is the ratio of current snow water daily data (collected by the Natural Resources Conservation Services' Snowtel Telemetry sites) compared to the average snow water for the same day between 1961-1990. Total Hydro Capacity figures by state do not tie precisely to Snow Water Equivalent data due to such factors as snow basin terrain and complex distribution of run-off to neighboring state hydroelectric dams or shared facilities (e.g., Columbia River hydroelectric dams on the border of Washington and Oregon) (Bloomberg, California Dept. of Water Resource and Government of British Columbia Ministry of Environment).

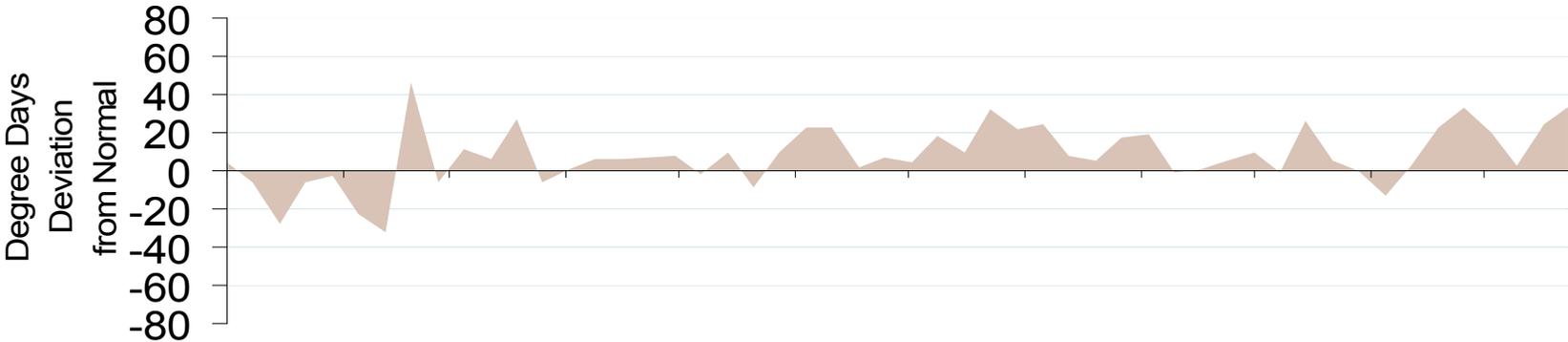
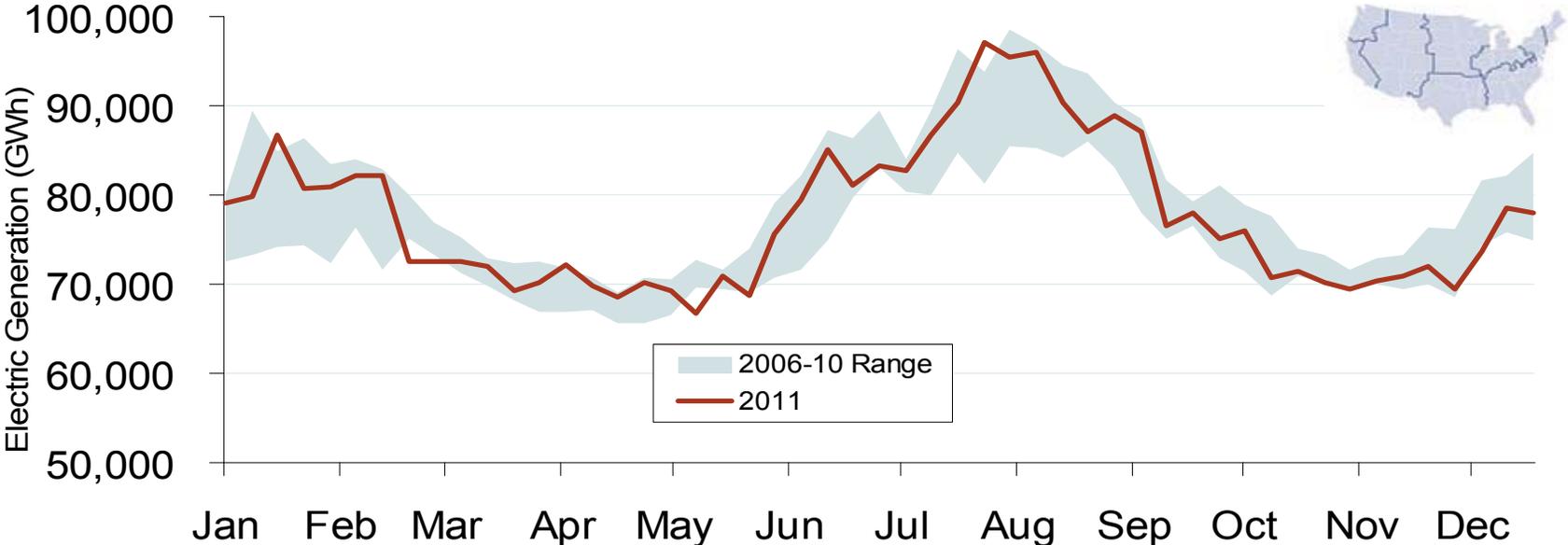
Western Daily Actual Peak Demand



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>

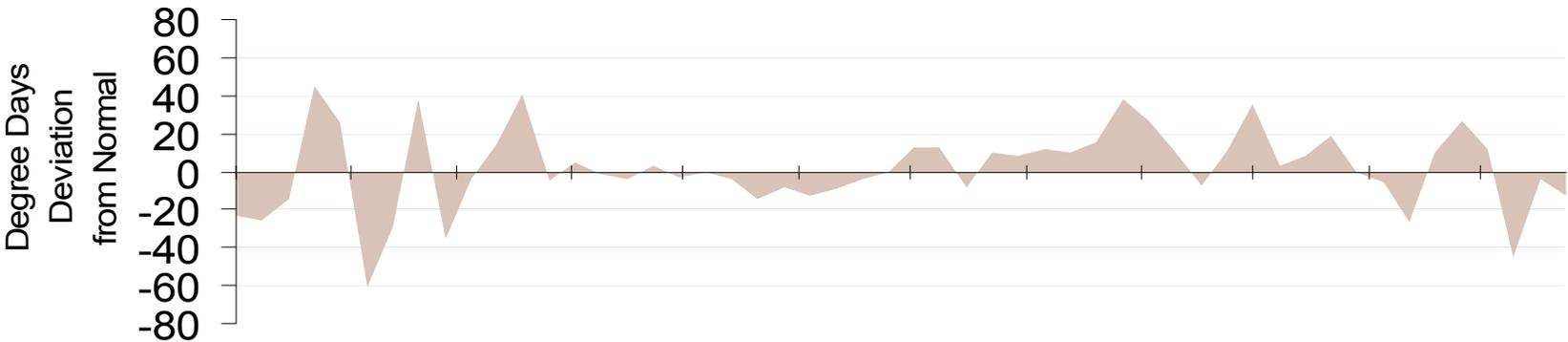
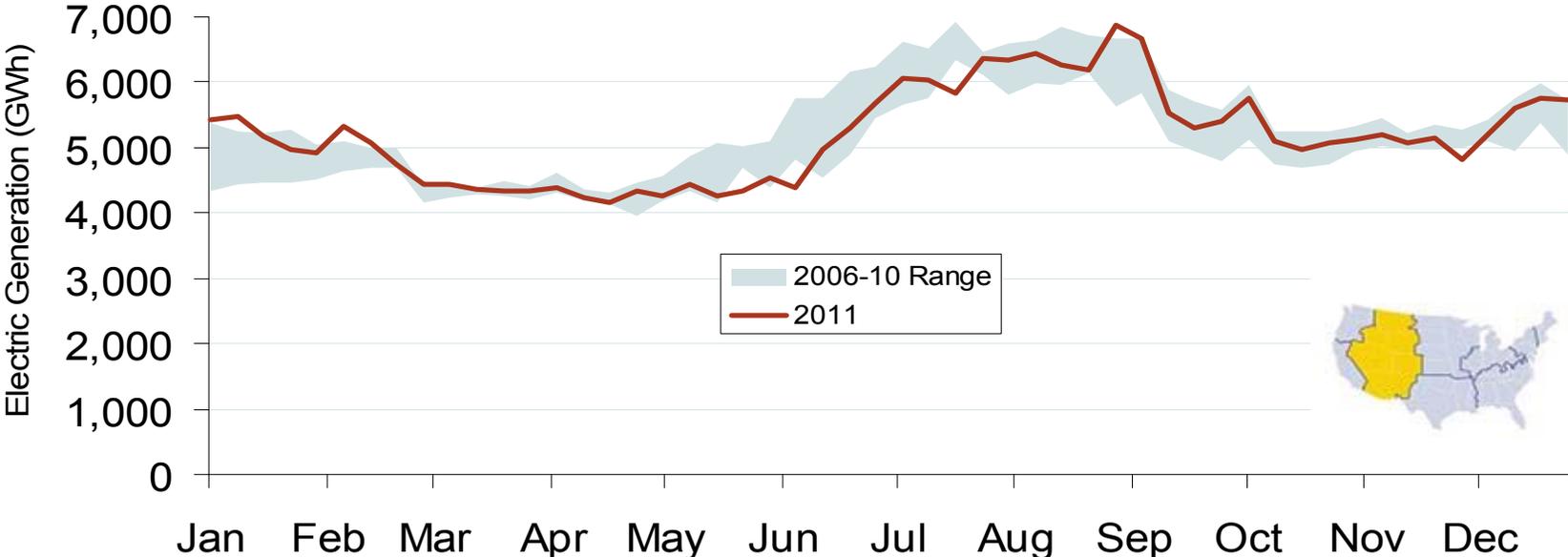
Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from *EEI* and *NOAA* data
January 2012 Western Snapshot

Updated: January 05, 2012

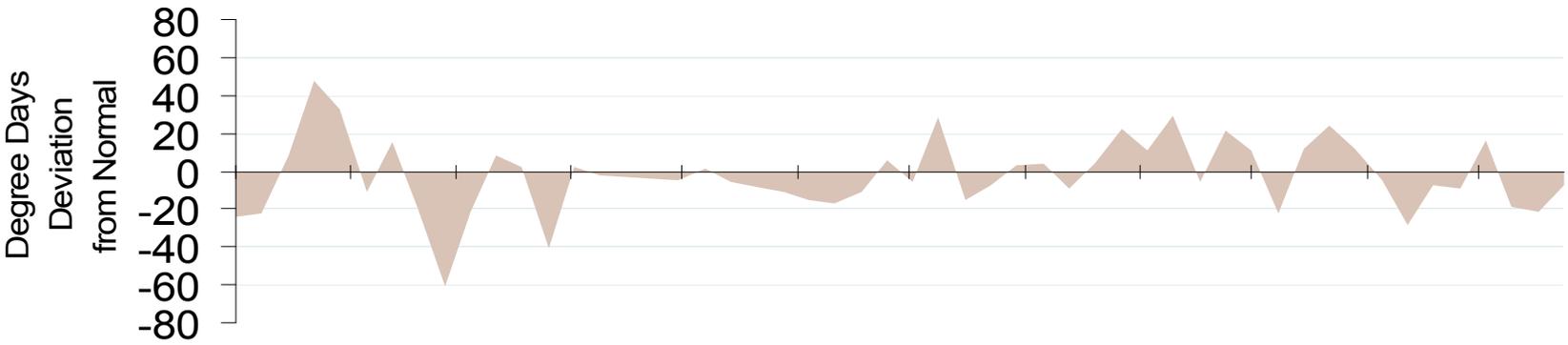
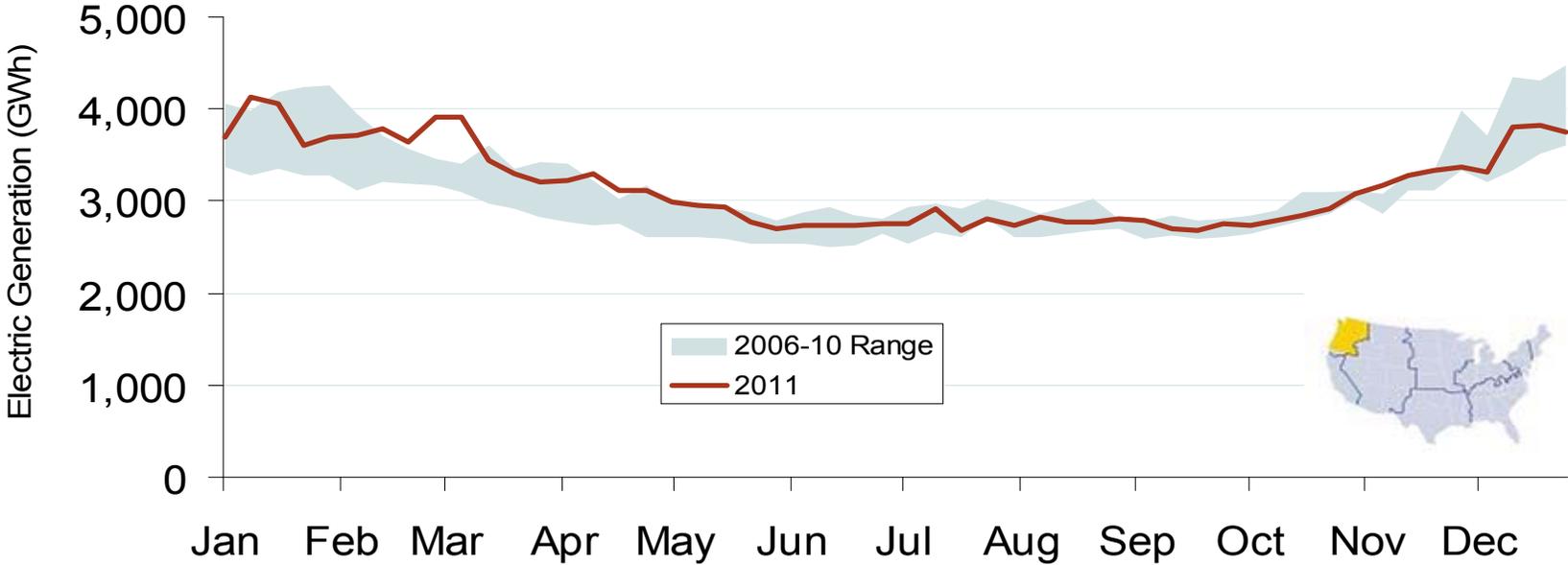
Weekly Power Generation & Temps. - Rocky Mountains



Source: Derived from EEI and NOAA data
January 2012 Western Snapshot

Updated: January 05, 2012

Weekly Power Generation & Temps. - Pacific Northwest



Source: Derived from *EEI* and *NOAA* data
January 2012 Western Snapshot

Updated: January 05, 2012

Weekly Power Generation & Temps. - California

