

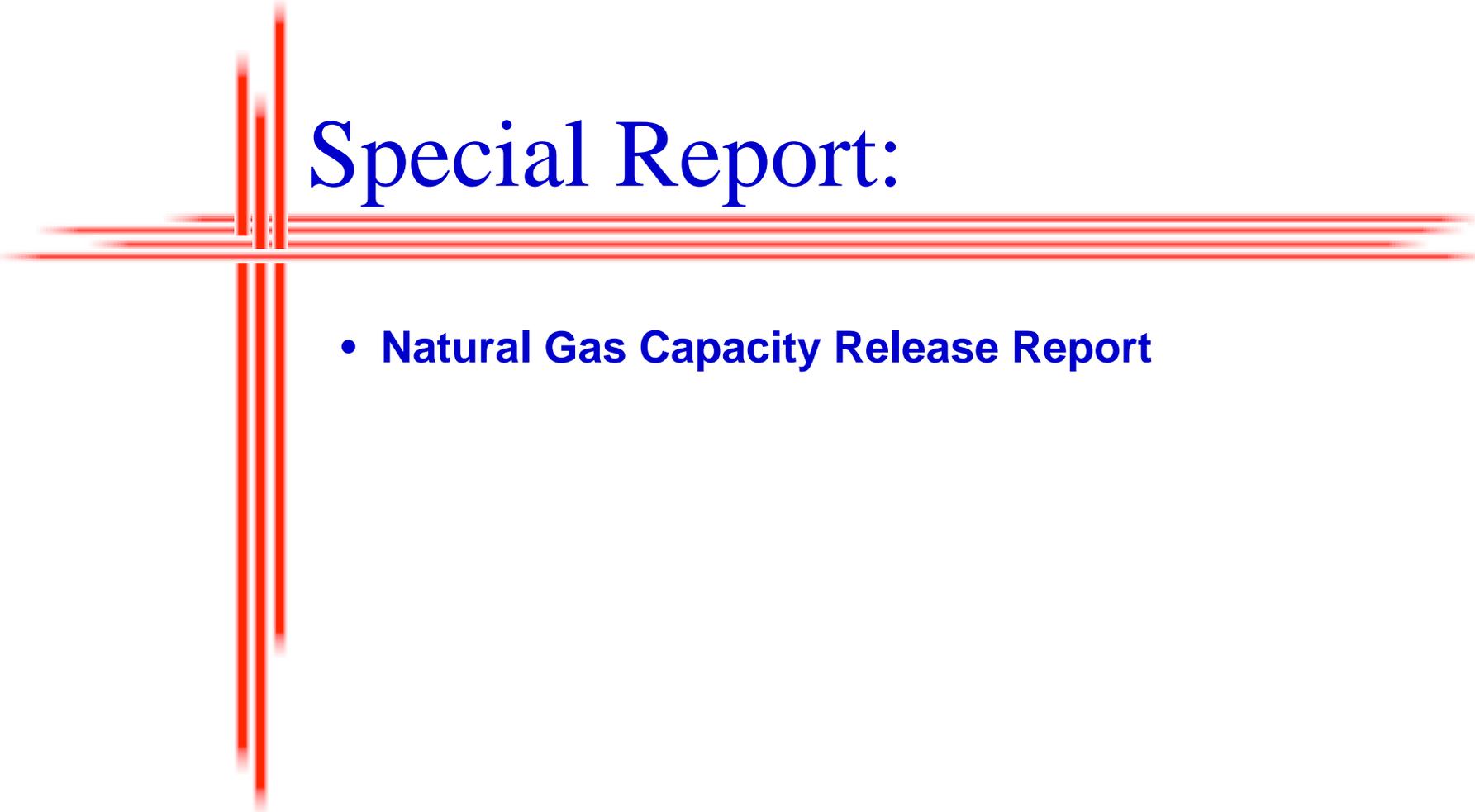
# OE ENERGY MARKET SNAPSHOT

## Western States Version – January 2011 Data

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

Office of Enforcement  
Federal Energy Regulatory Commission  
February 2011



# Special Report:

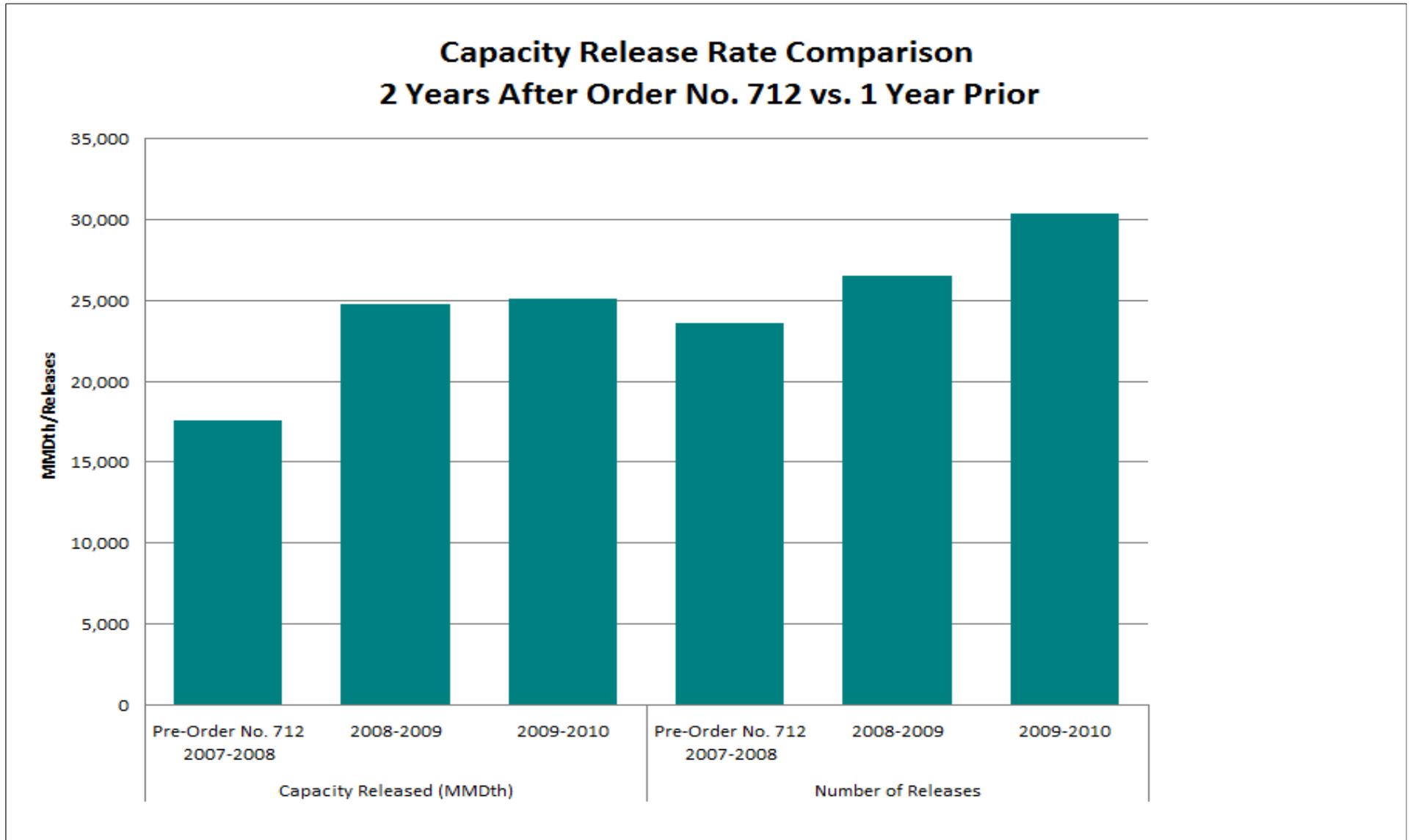
- **Natural Gas Capacity Release Report**

## Introduction

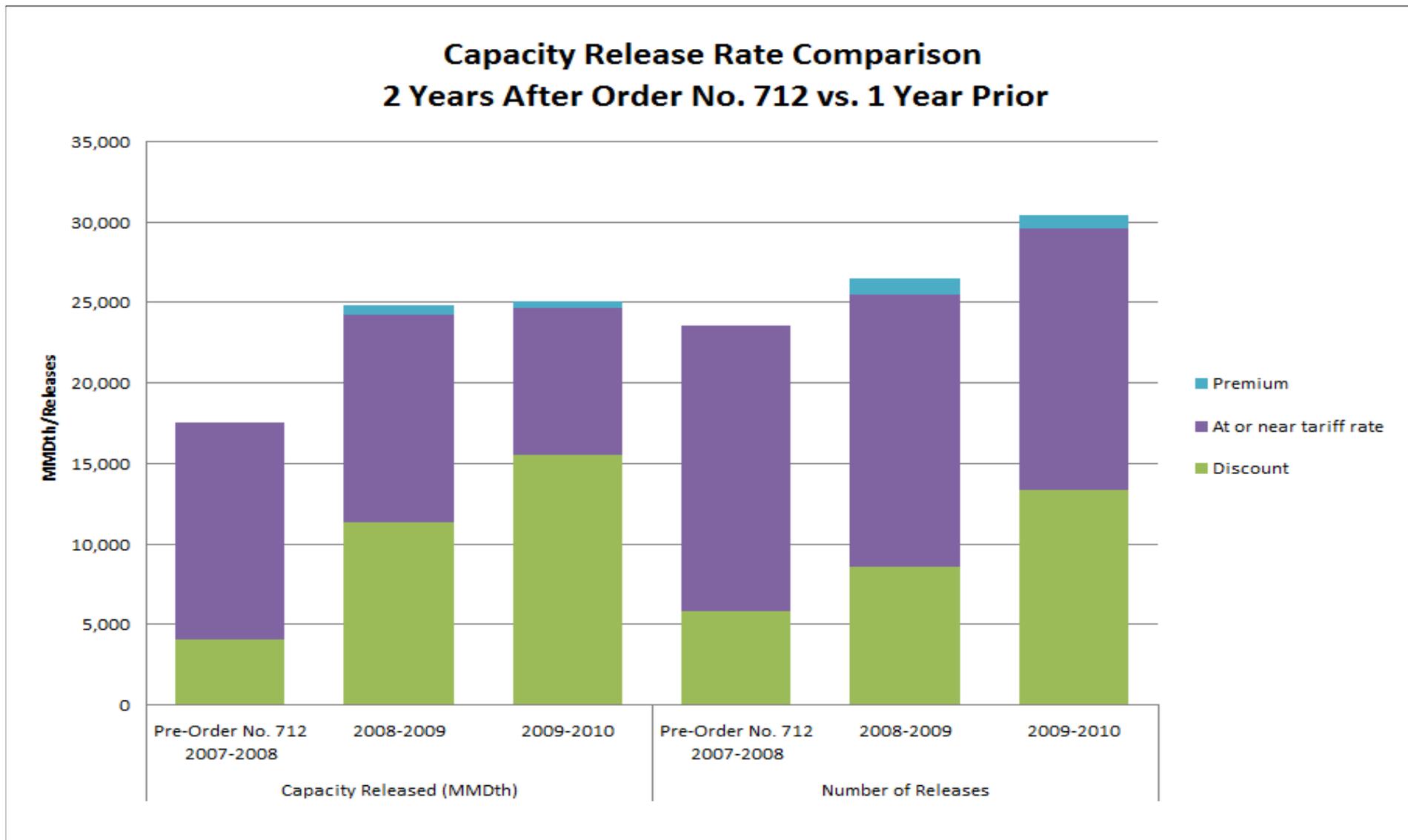
- On June 19, 2008, FERC issued Order No. 712, which removed the price cap on short-term (less than one year) capacity releases on interstate natural gas pipelines.
- In the order, the Commission directed “staff to monitor the capacity release program and, using all available information, issue a report on the general performance of the capacity release program, within six months after two years of experience under the new rules”.
- On 1/31/2011, the Commission issued a Staff Report on Capacity Release. To view the document for this Issuance, click here

[http://elibrary.FERC.gov/idmws/file\\_list.asp?accession\\_num=20110131-3078](http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20110131-3078)

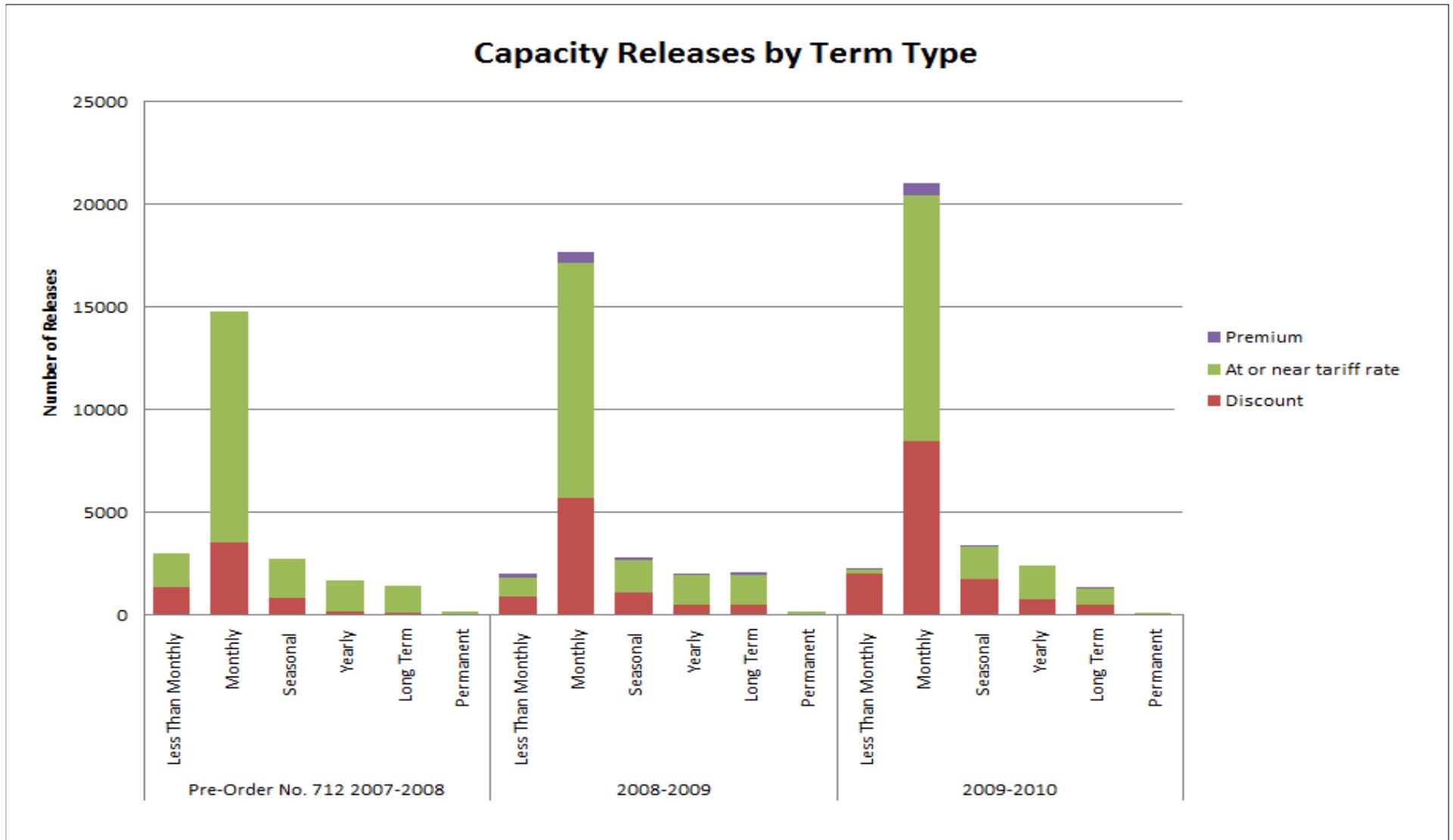
## Overview



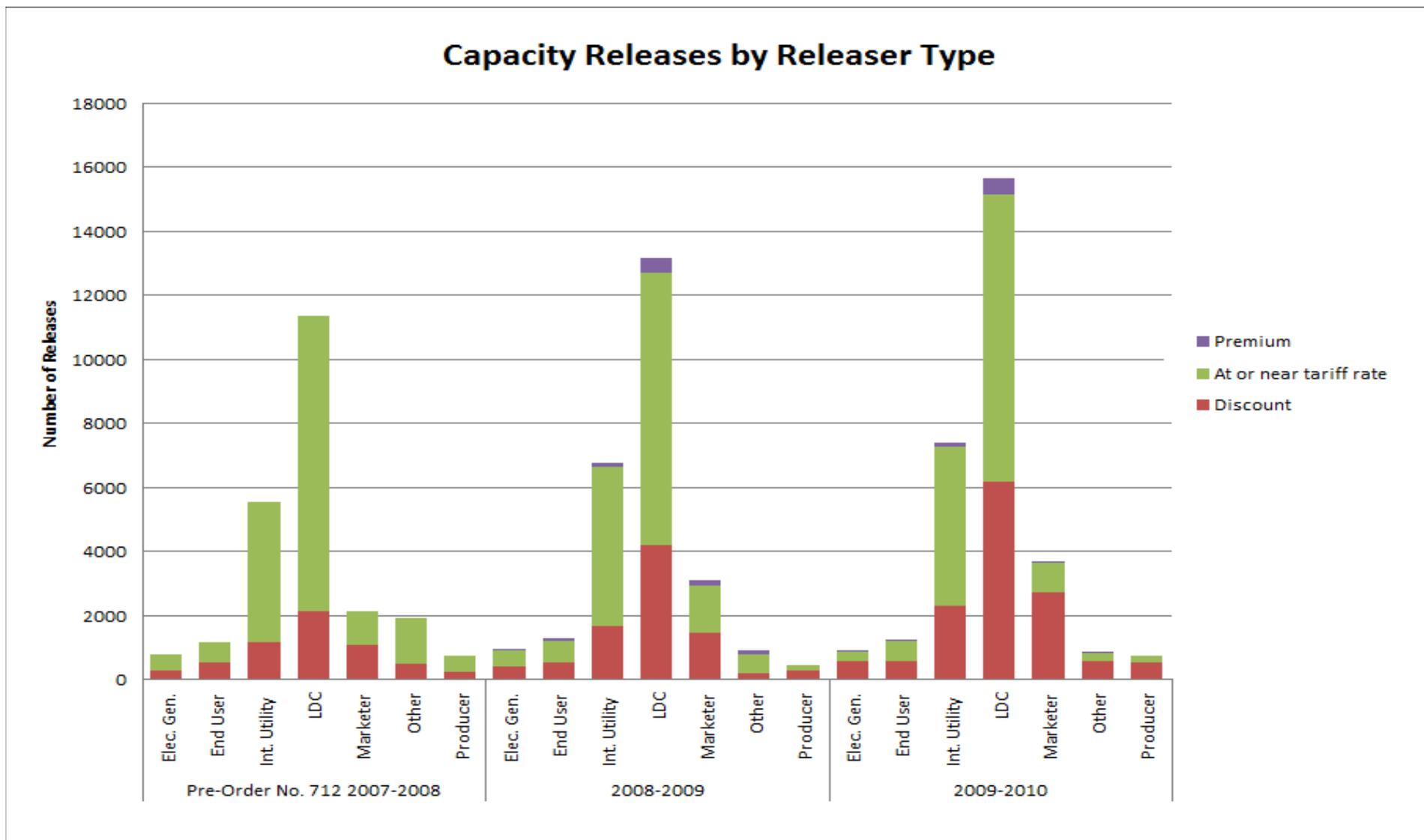
## The effects of the Price Cap

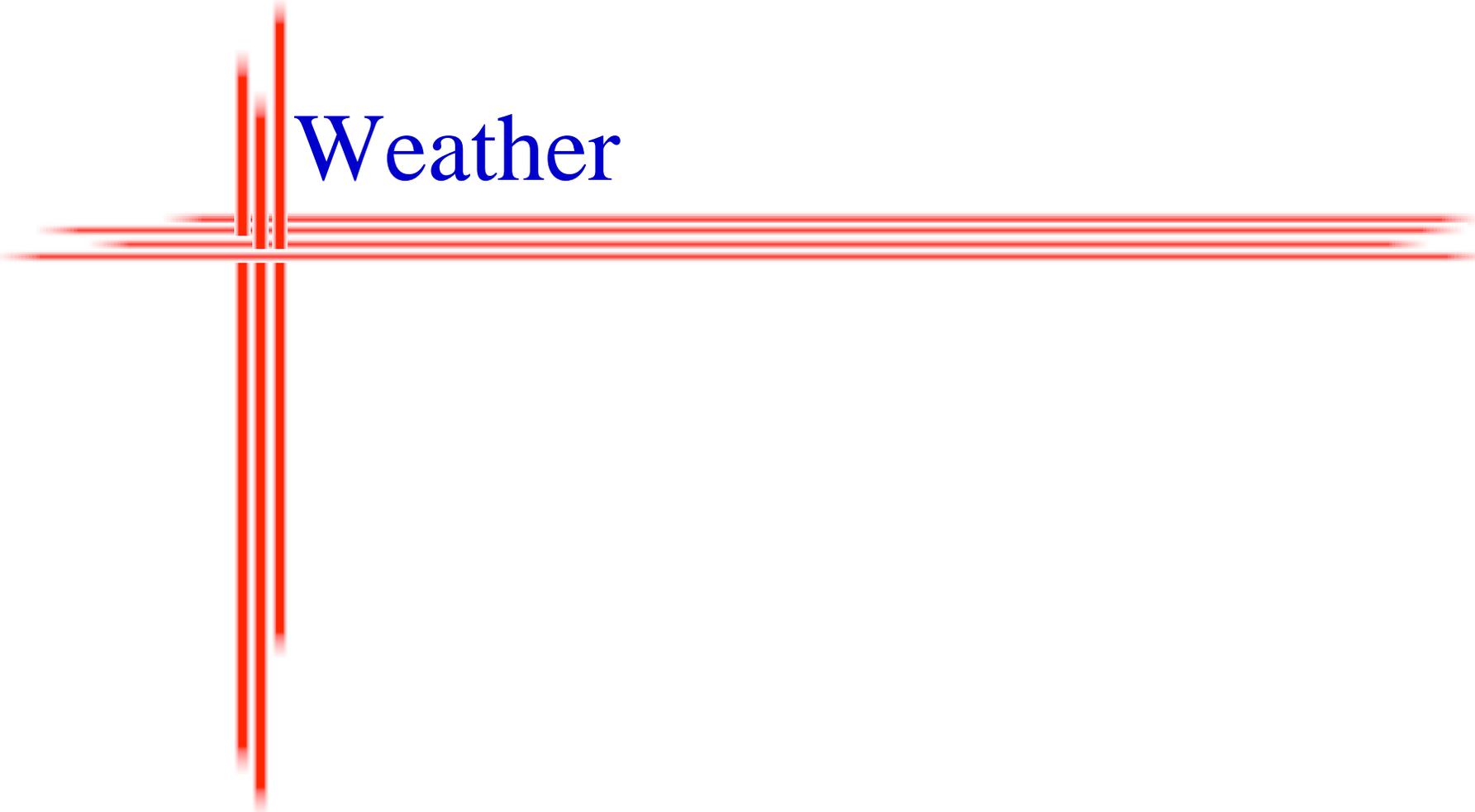


## Release Duration



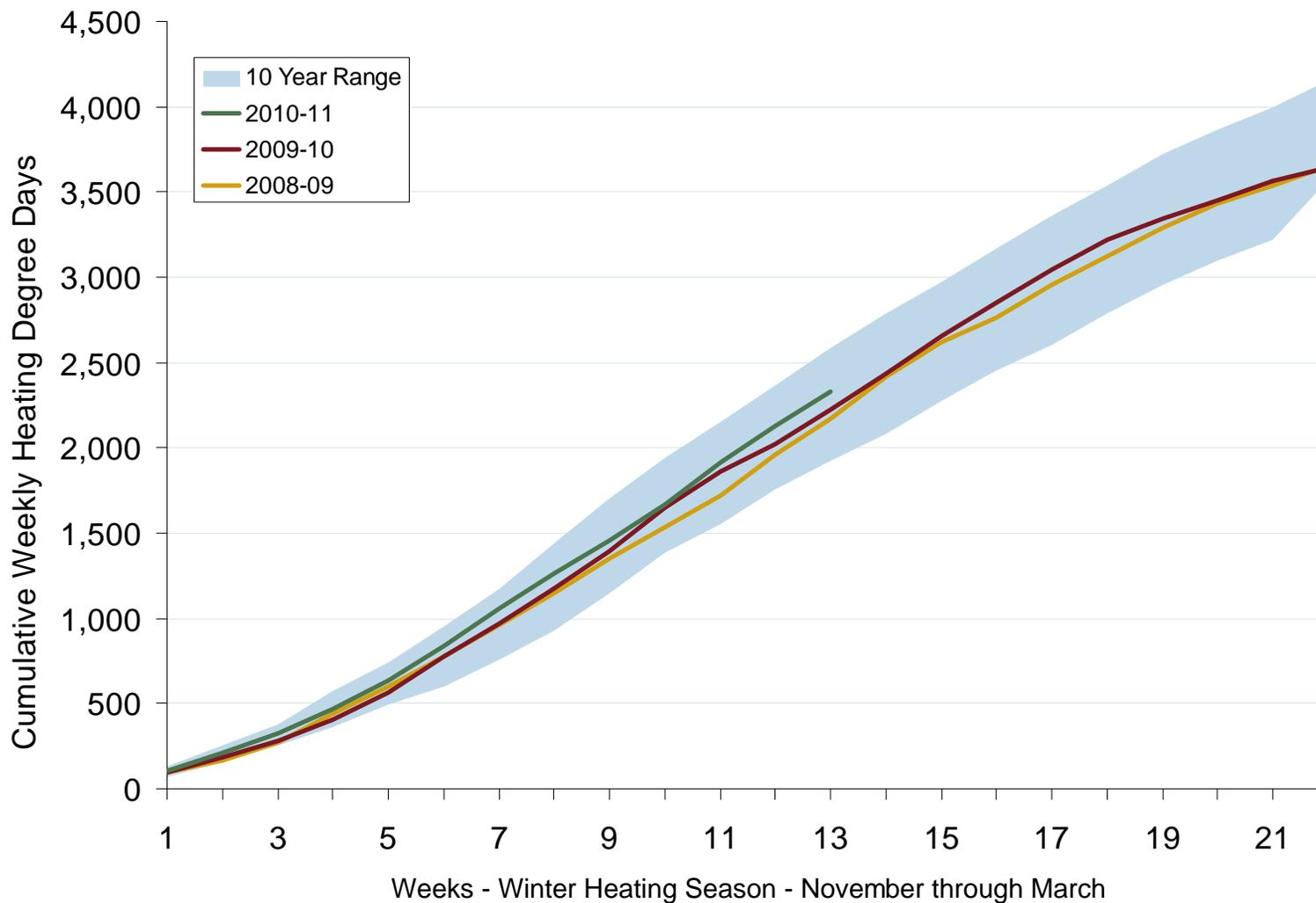
# Releasing Shippers



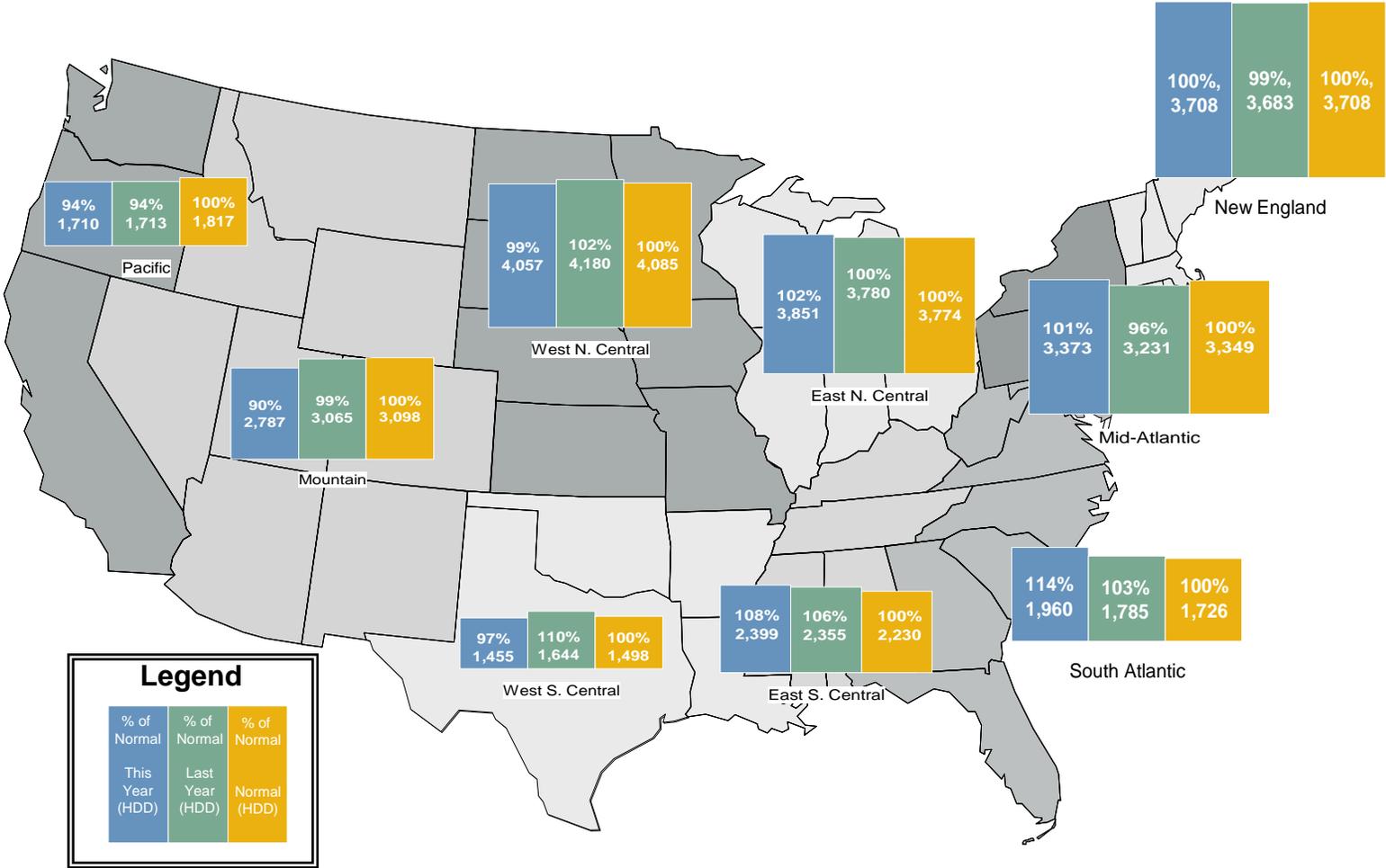


# Weather

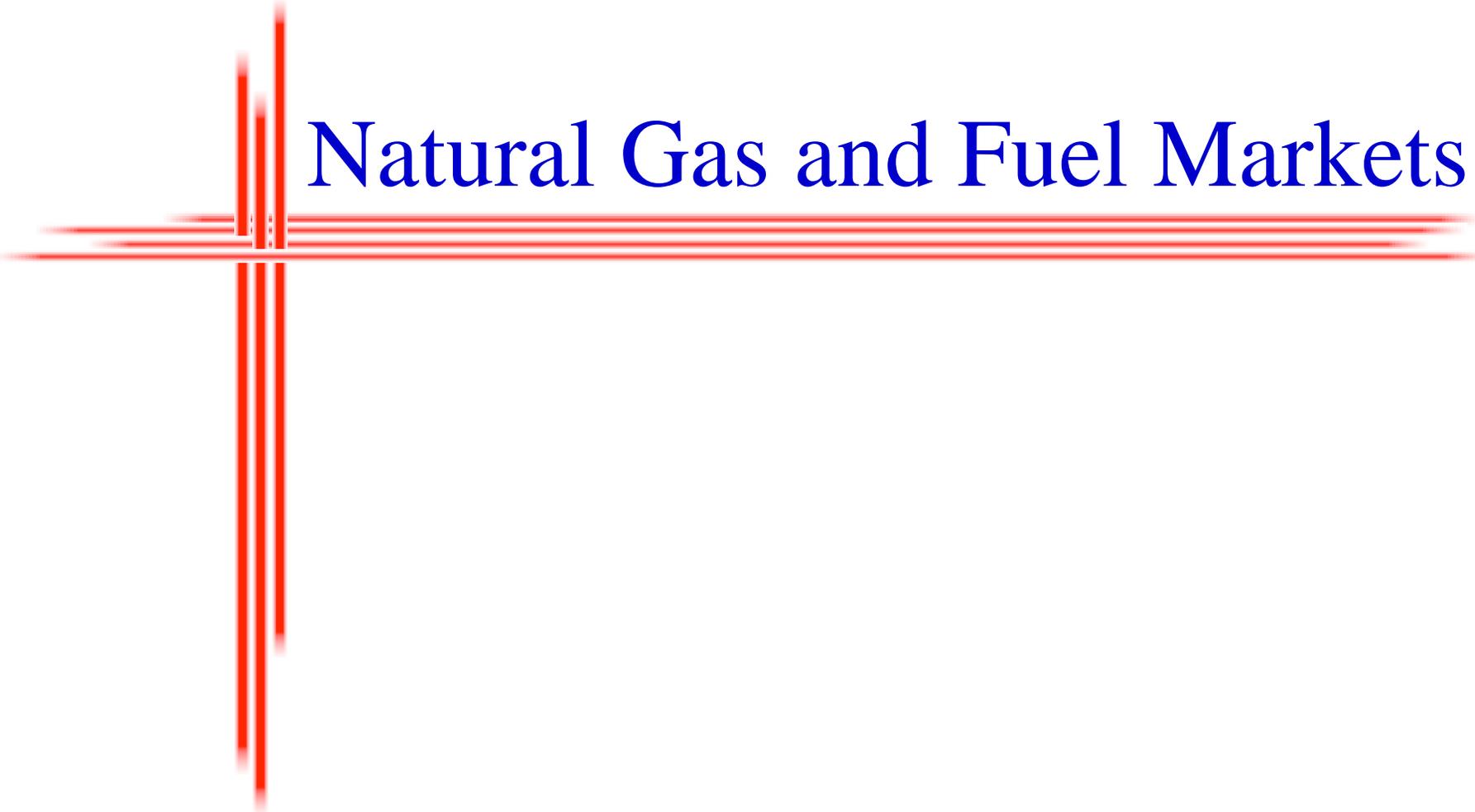
## U. S. Winter Cumulative Heating Degree Days



# Regional Heating Degree Days July 2010 Through January 2011

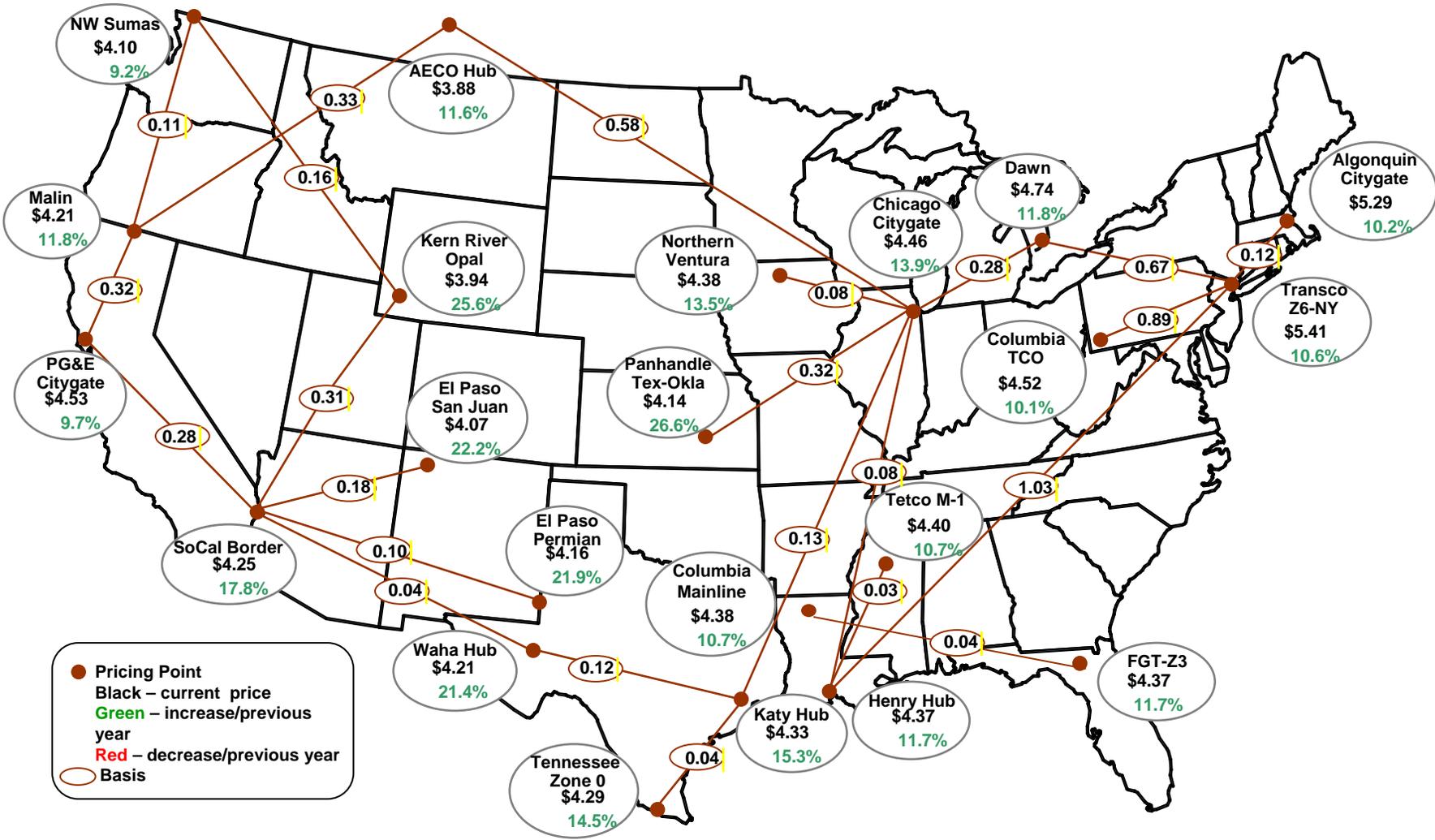


Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.  
February 2011 Western Snapshot Report



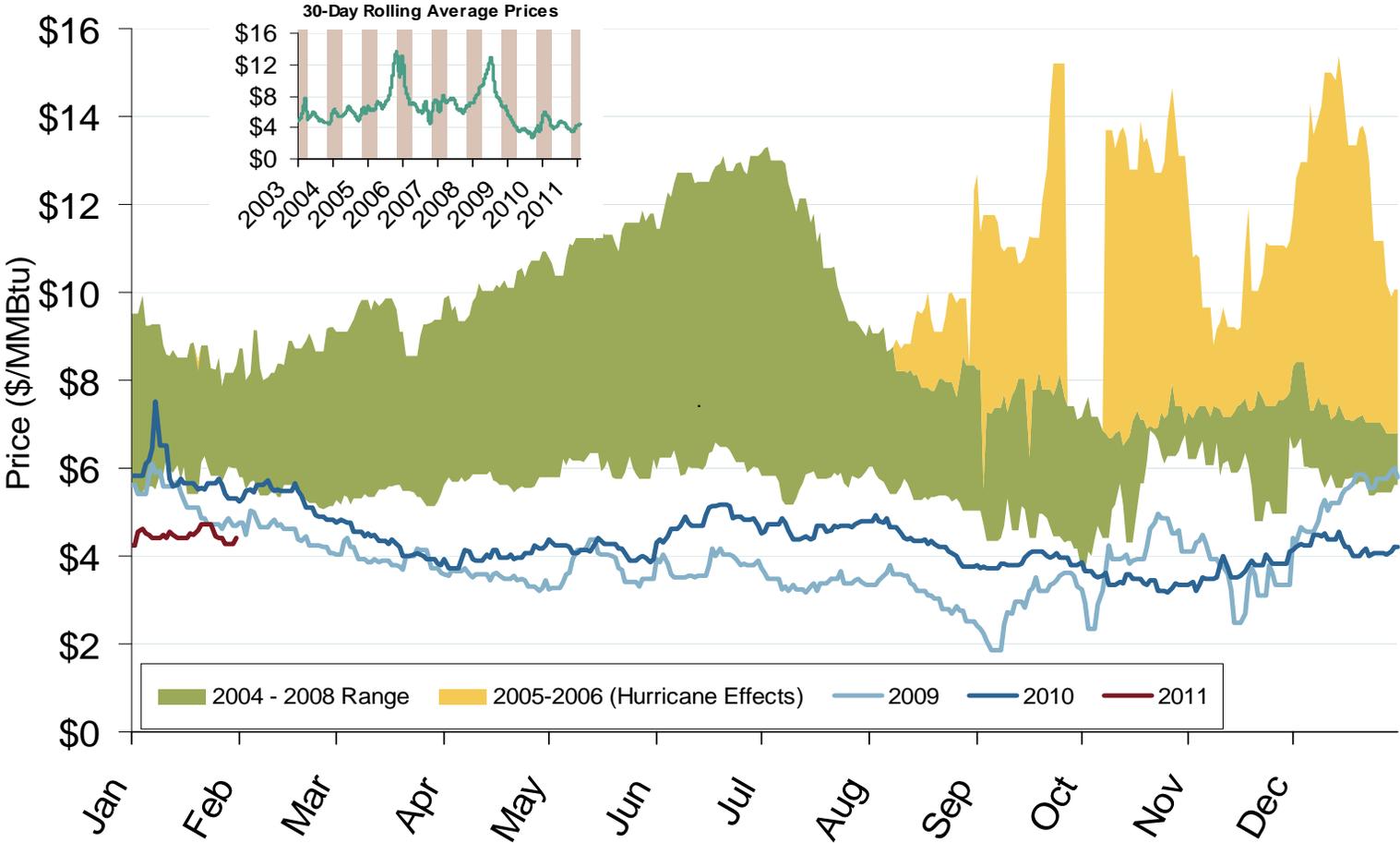
# Natural Gas and Fuel Markets

# Average Spot Gas Prices, 2010 (\$MMBtu)



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

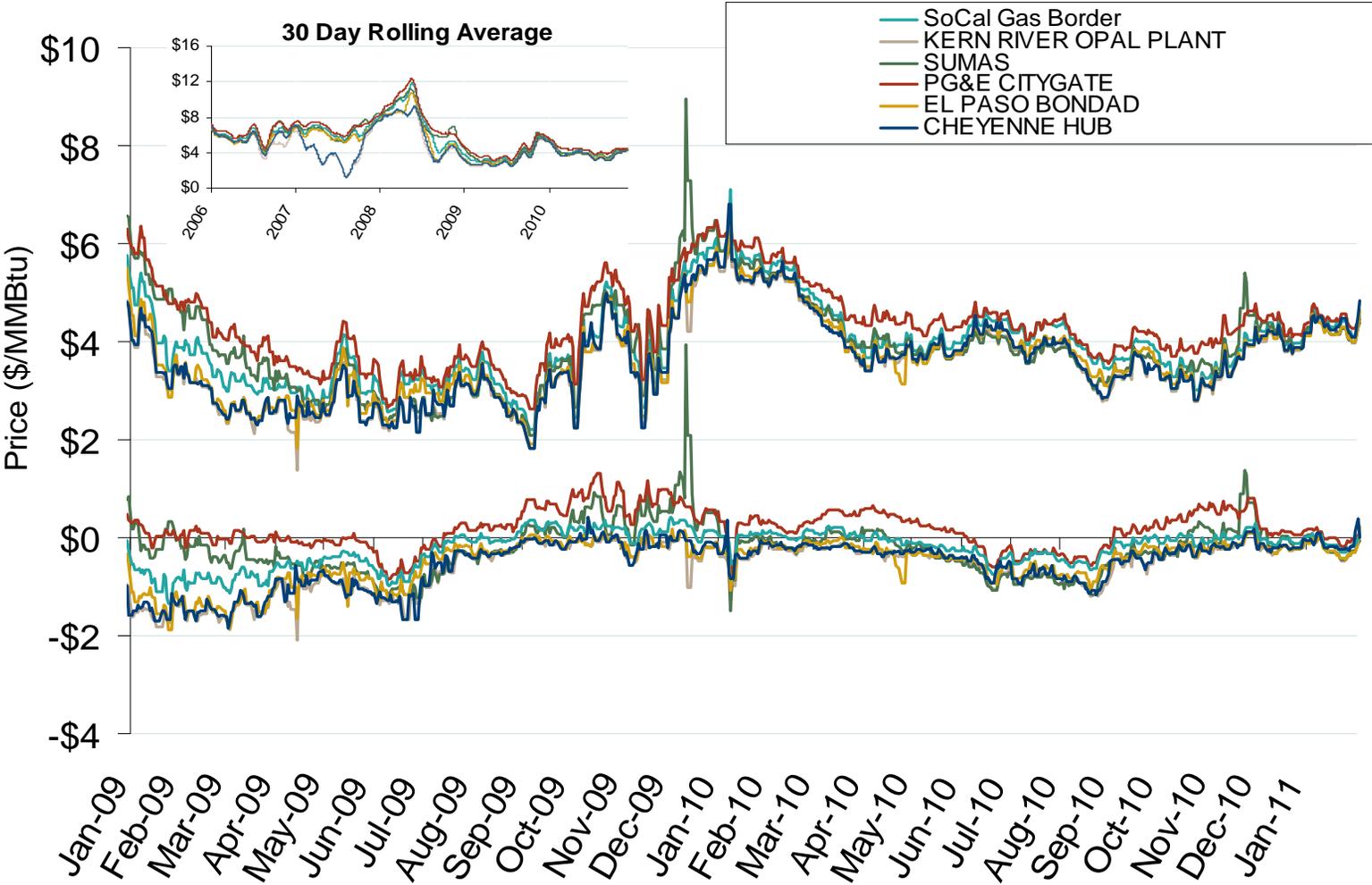
# Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data.

Updated: February 3, 2011

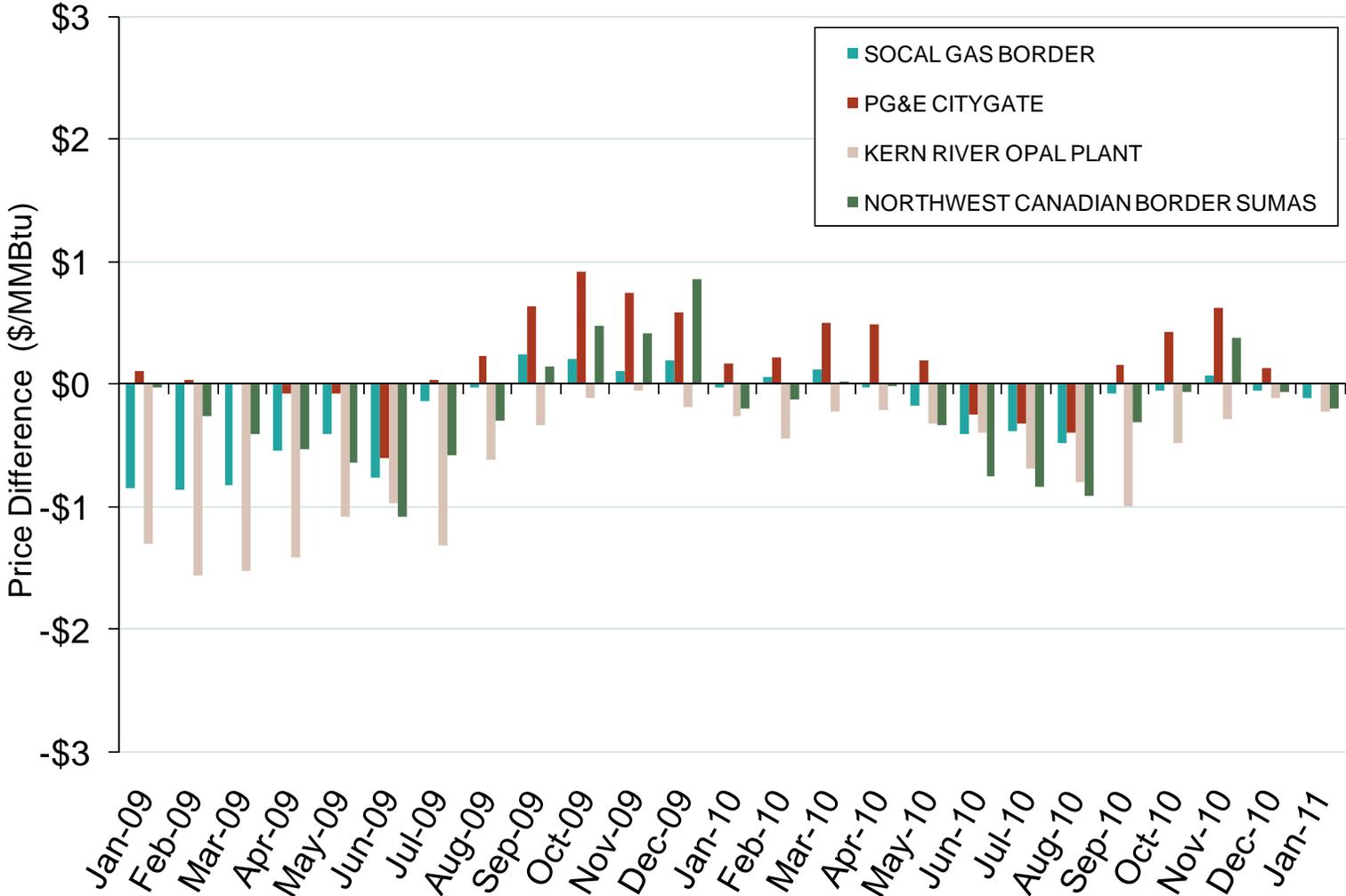
# Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

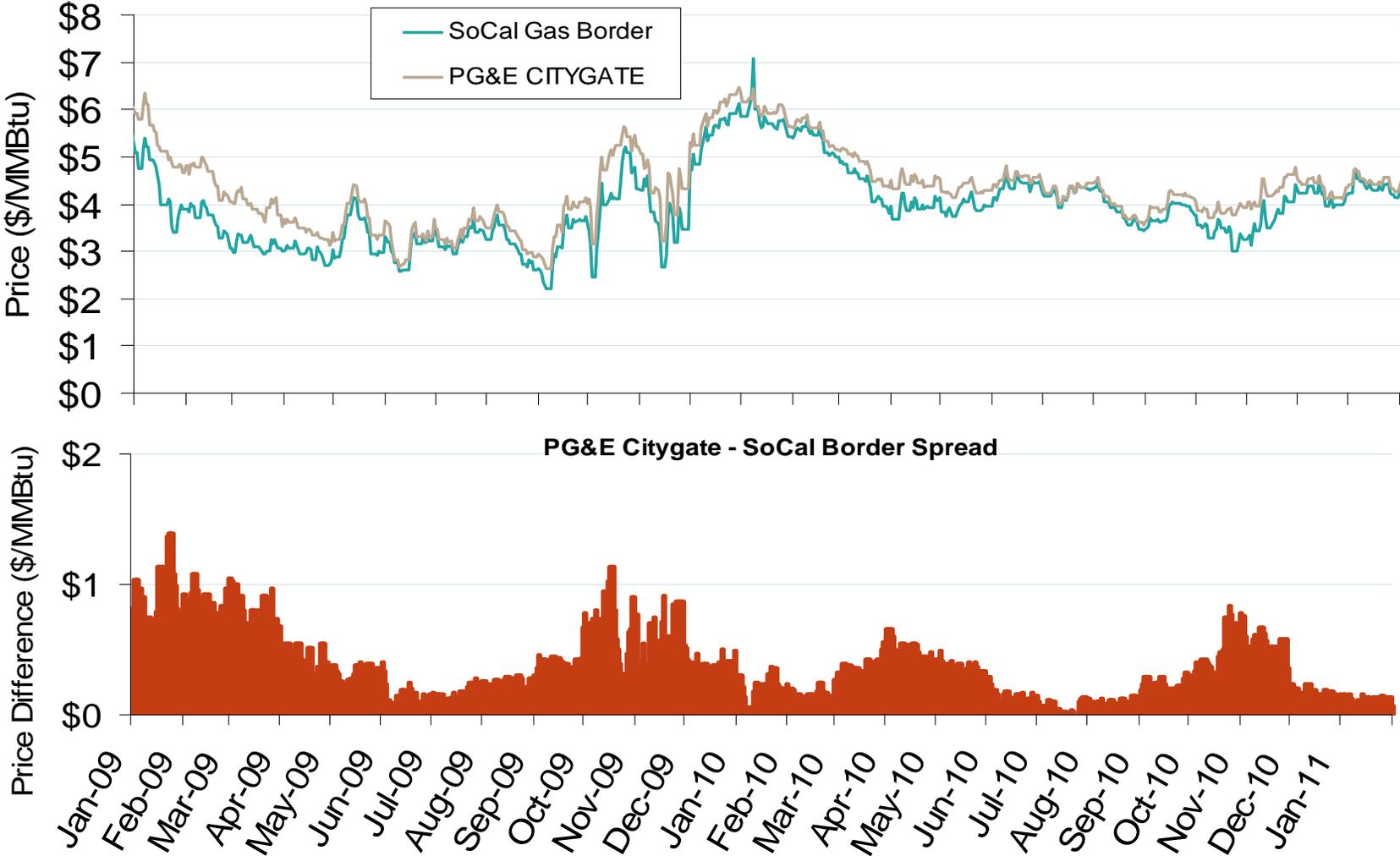
Updated: February 03, 2011

# Western Monthly Average Basis Value to Henry Hub



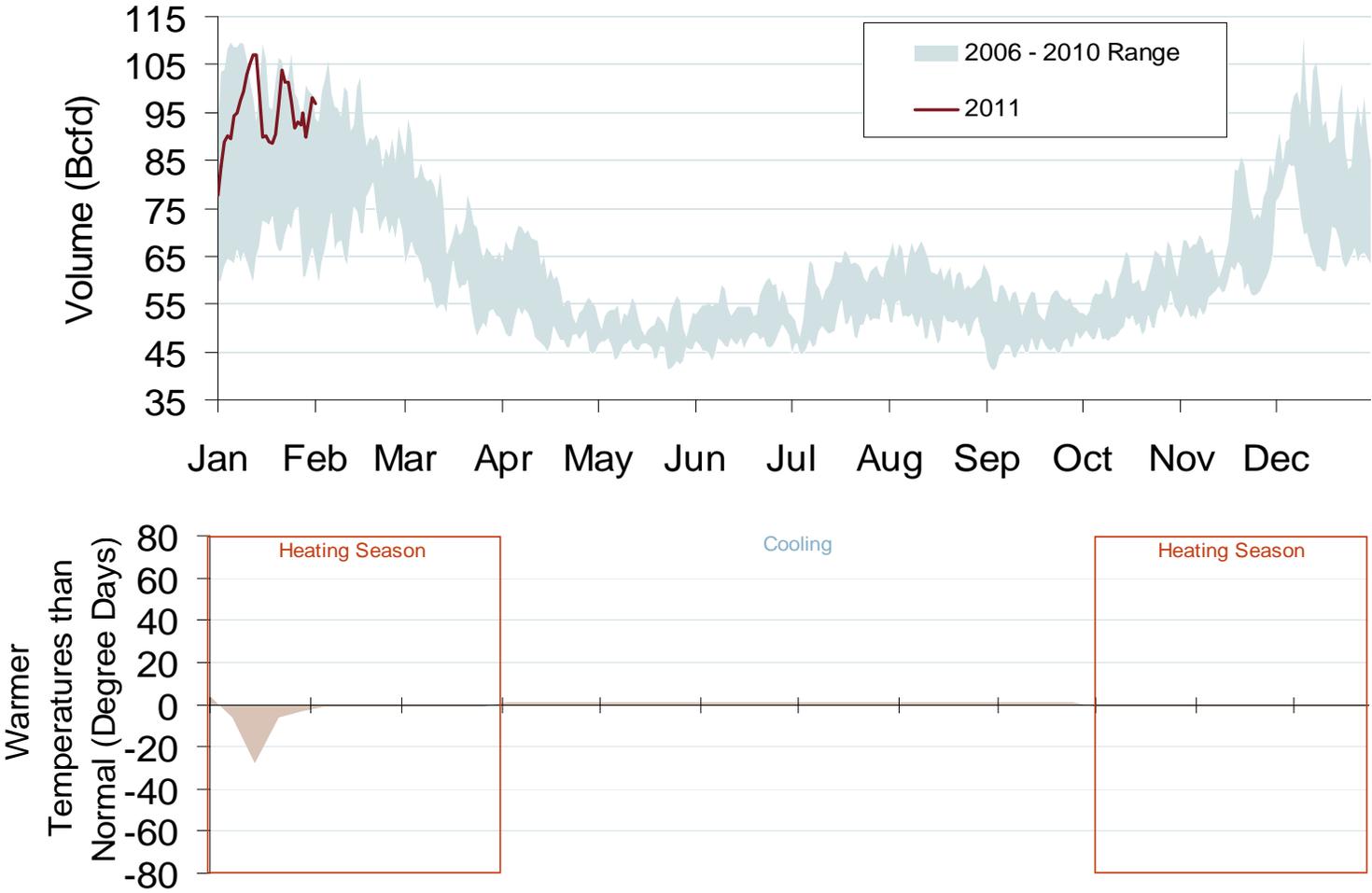
Source: Derived from Platts data.  
February 2011 Western Snapshot Report

# Difference in Northern and Southern California Daily Spot Prices



Source: Derived from *Platts* data.  
February 2011 Western Snapshot Report

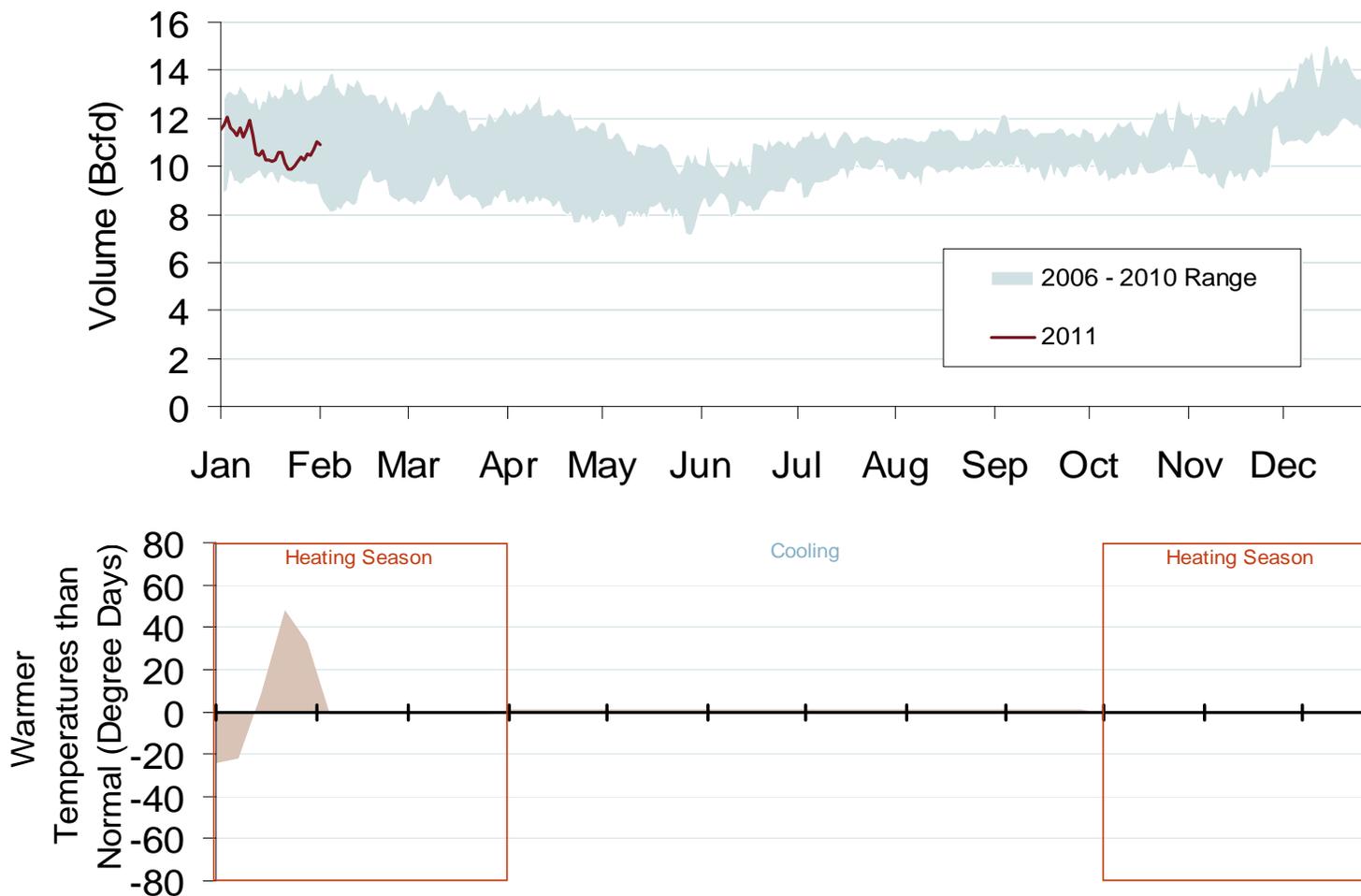
# Total U.S. Natural Gas Demand (All Sectors) and Temperatures



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

Updated: February 03, 2011

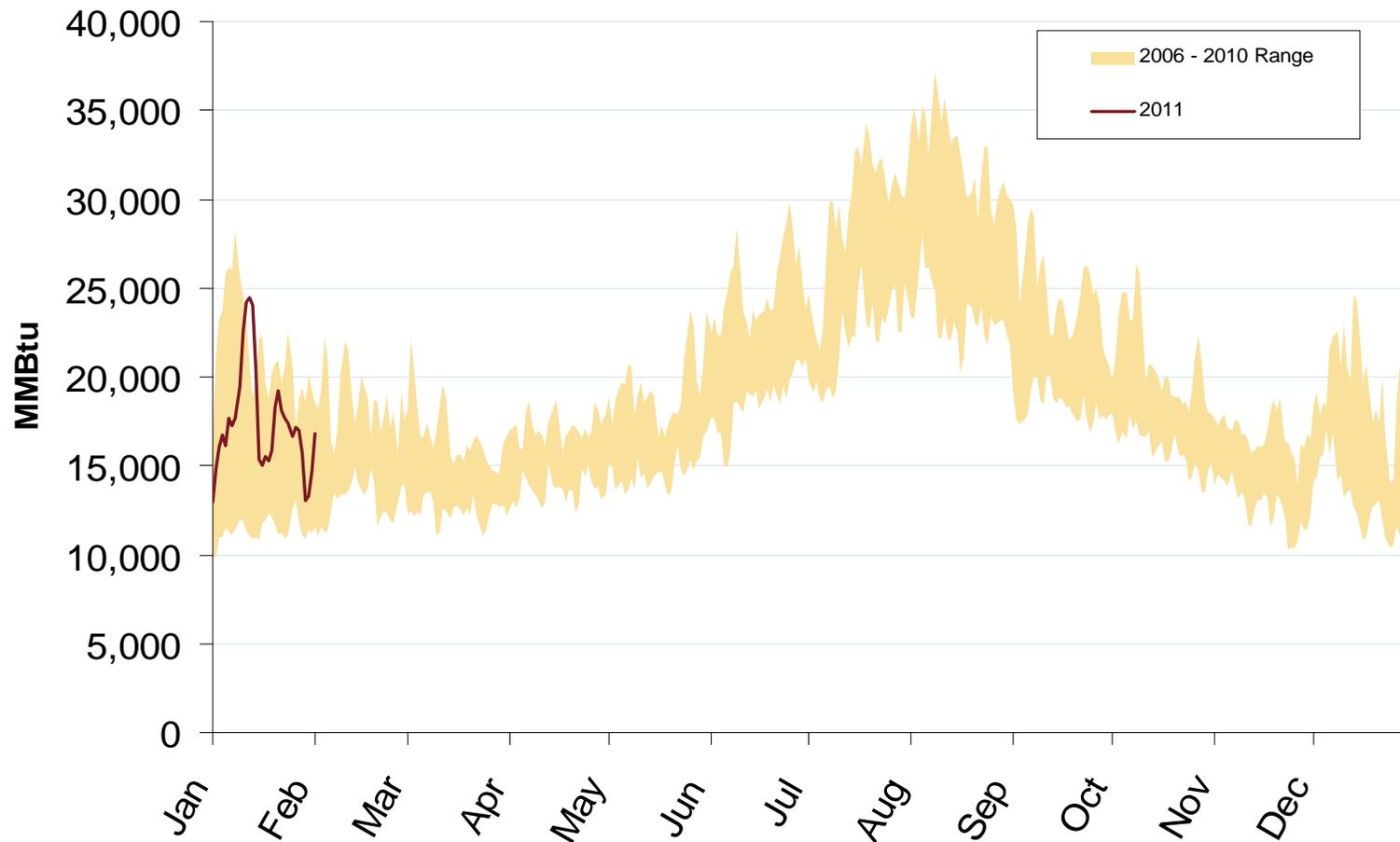
# Daily Western Natural Gas Demand - All Sectors



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

Updated: February 03, 2011

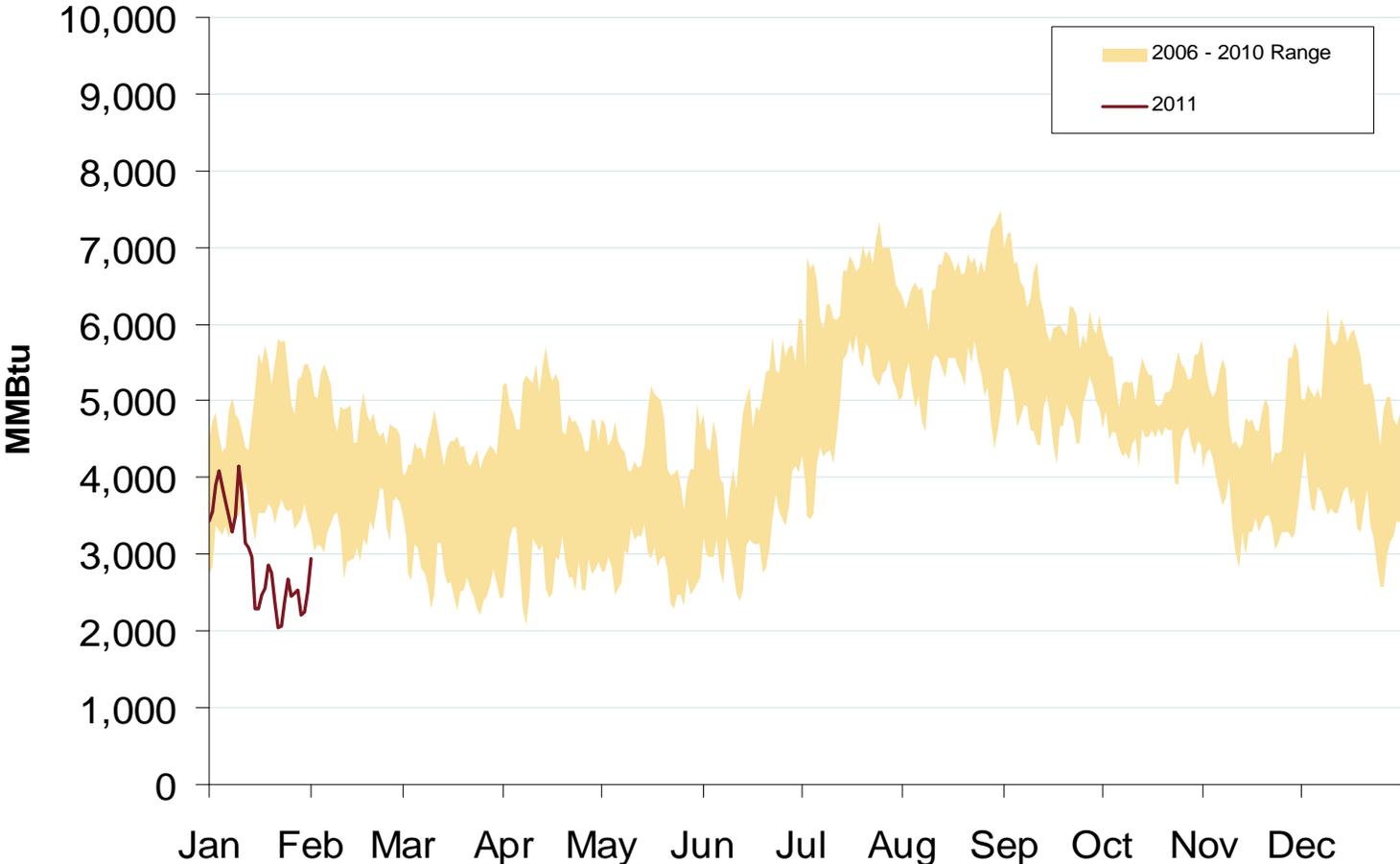
## U.S. Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

Updated: February 03, 2011

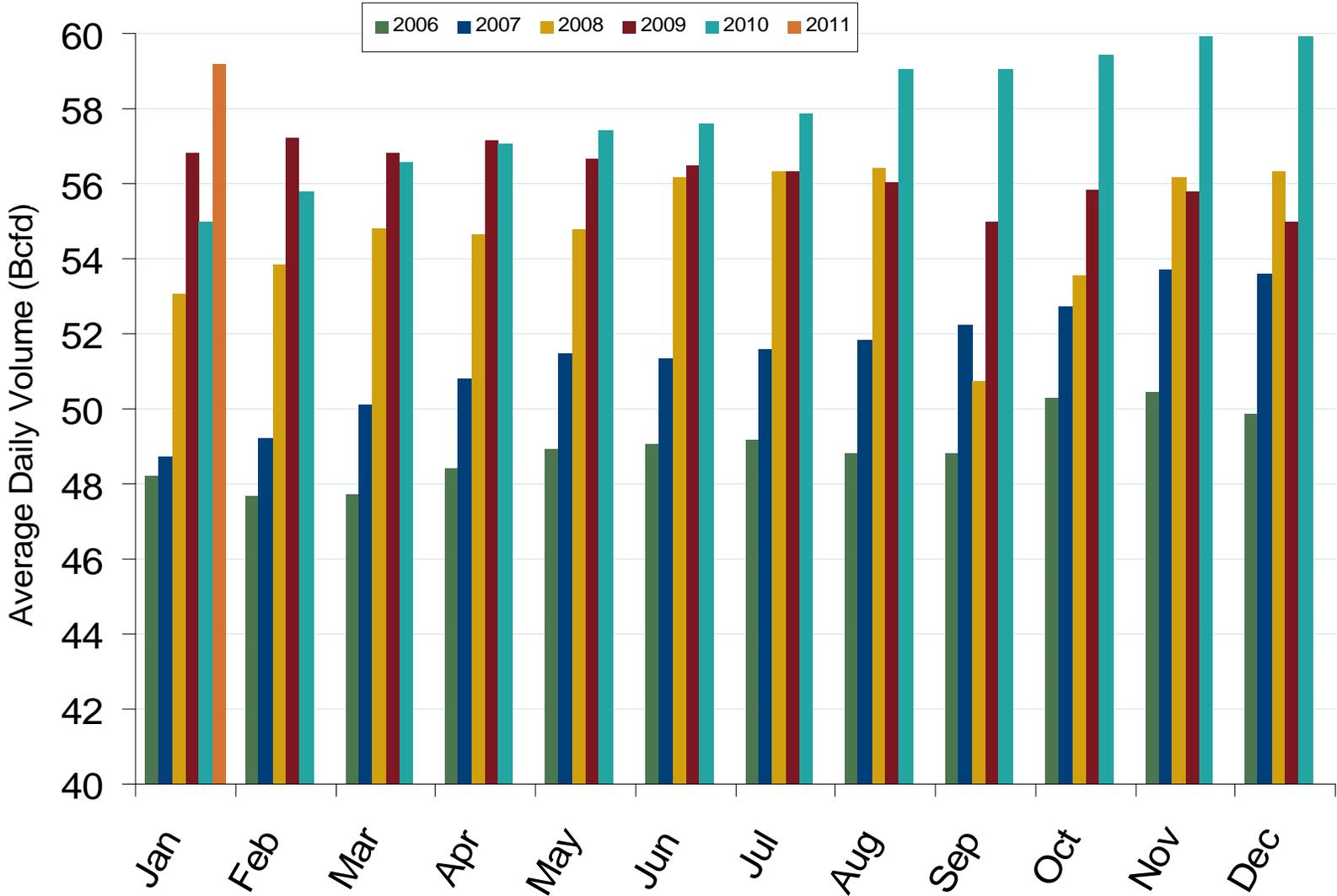
# Western Natural Gas Consumption for Power Generation



Source: Derived from Bentek Energydata.

Updated: February 03, 2011

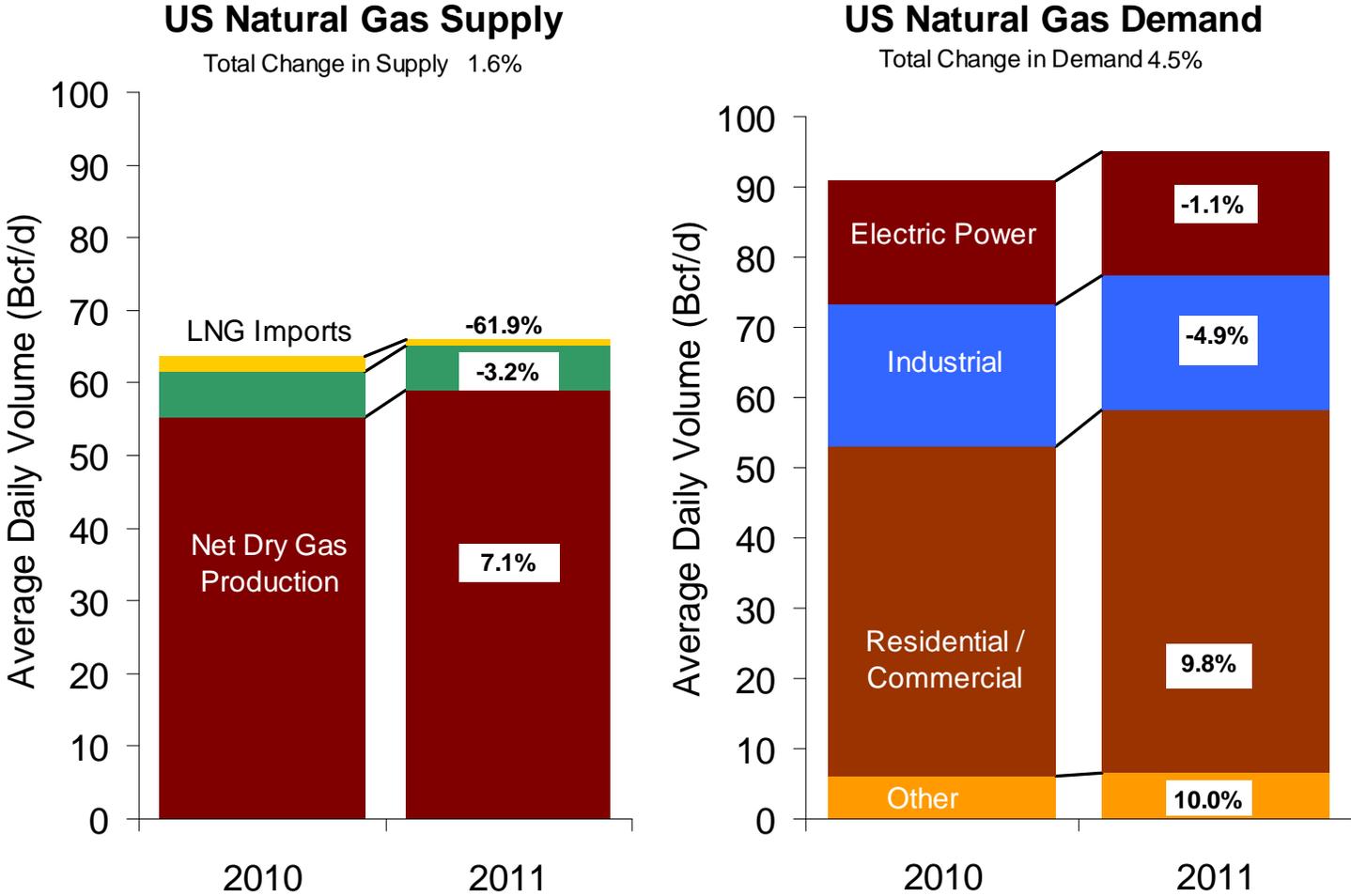
# U.S. Dry Gas Production



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

Updated February 7, 2011

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

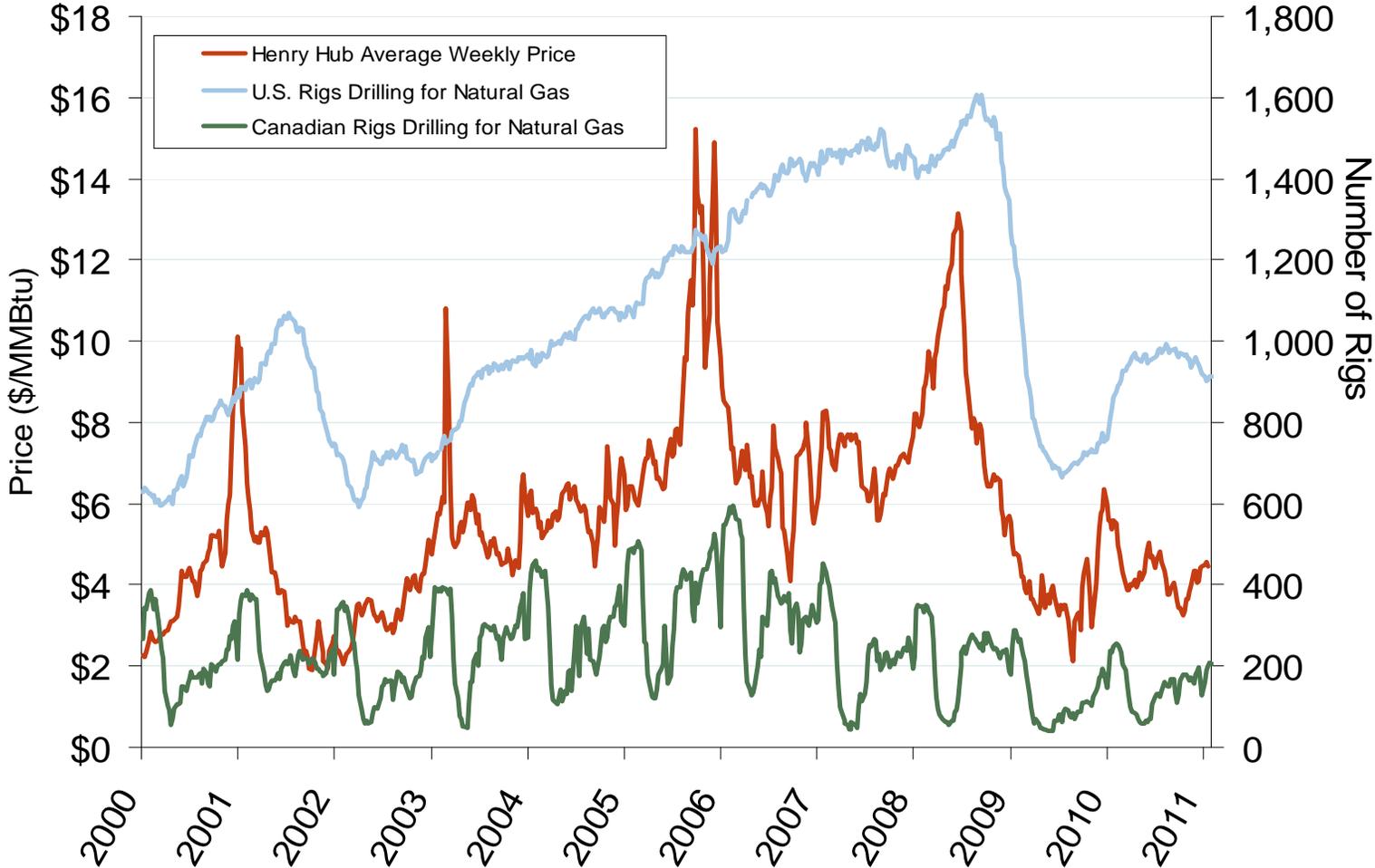


Source: Derived from *Bentek* data.  
February 2011 Western Snapshot Report

Updated February 7, 2011

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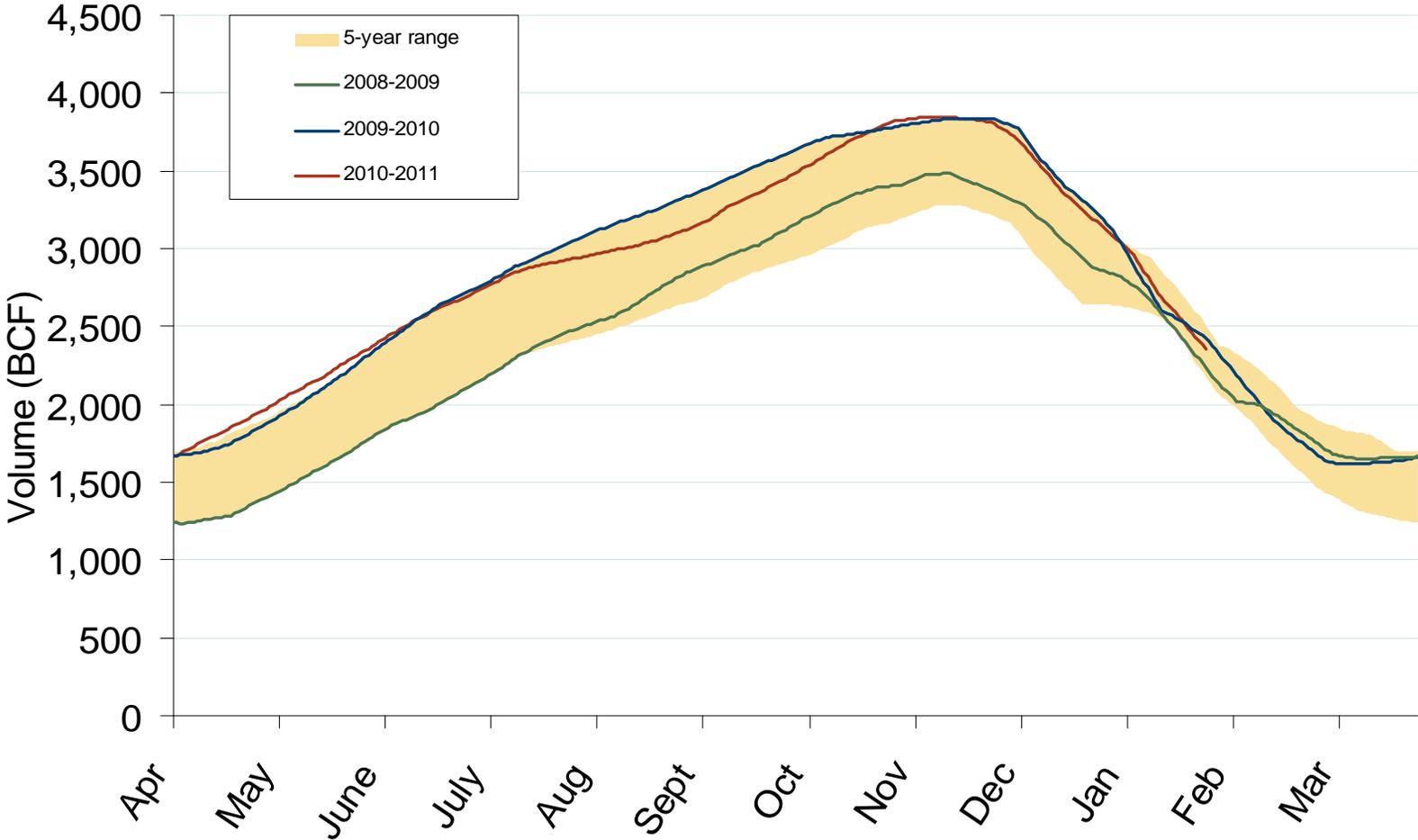
# U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

Updated: February 3, 2011

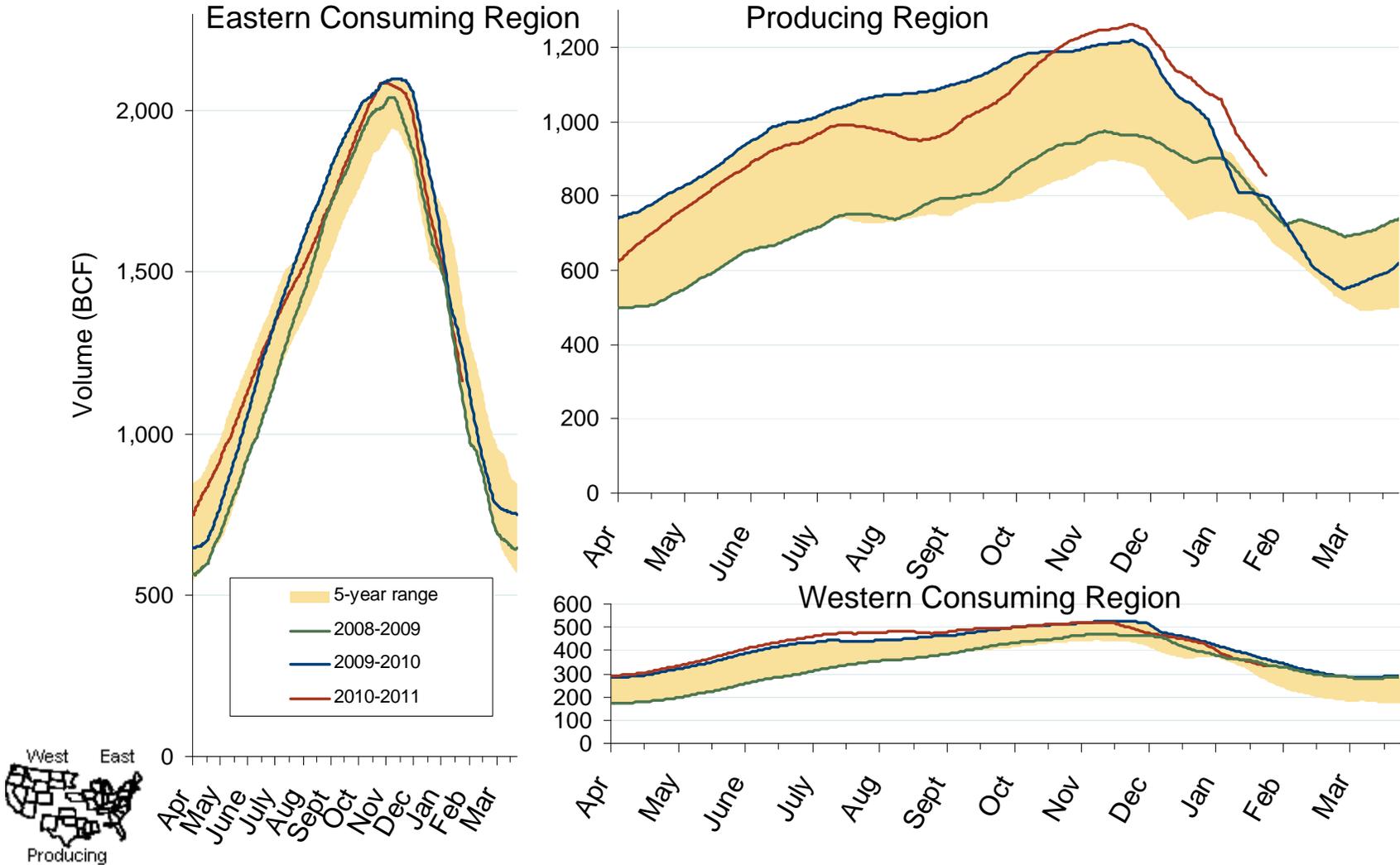
# Total U.S. Working Gas in Storage



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

Updated February 7, 2011

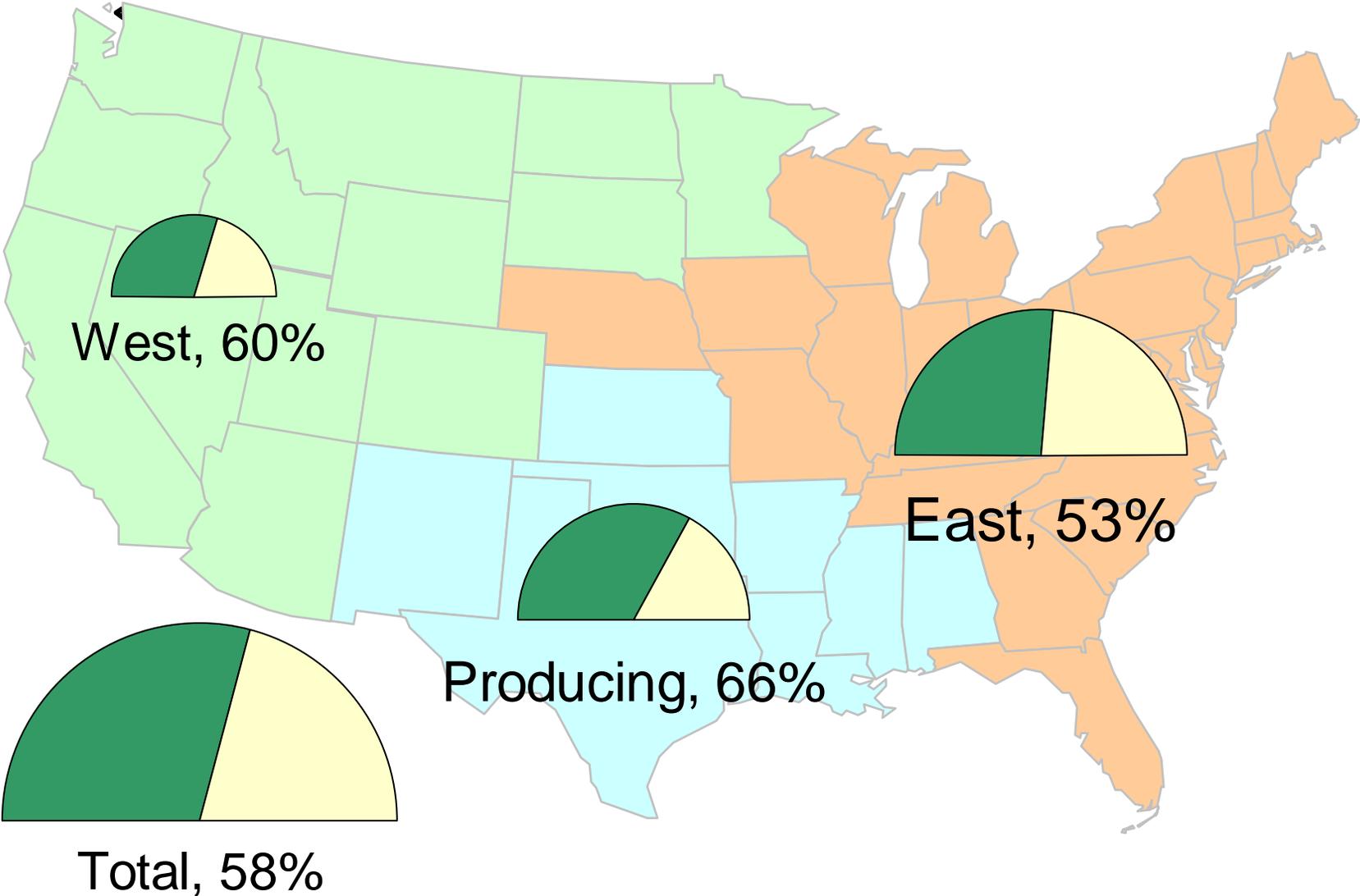
# Regional Totals of Working Gas in Storage



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

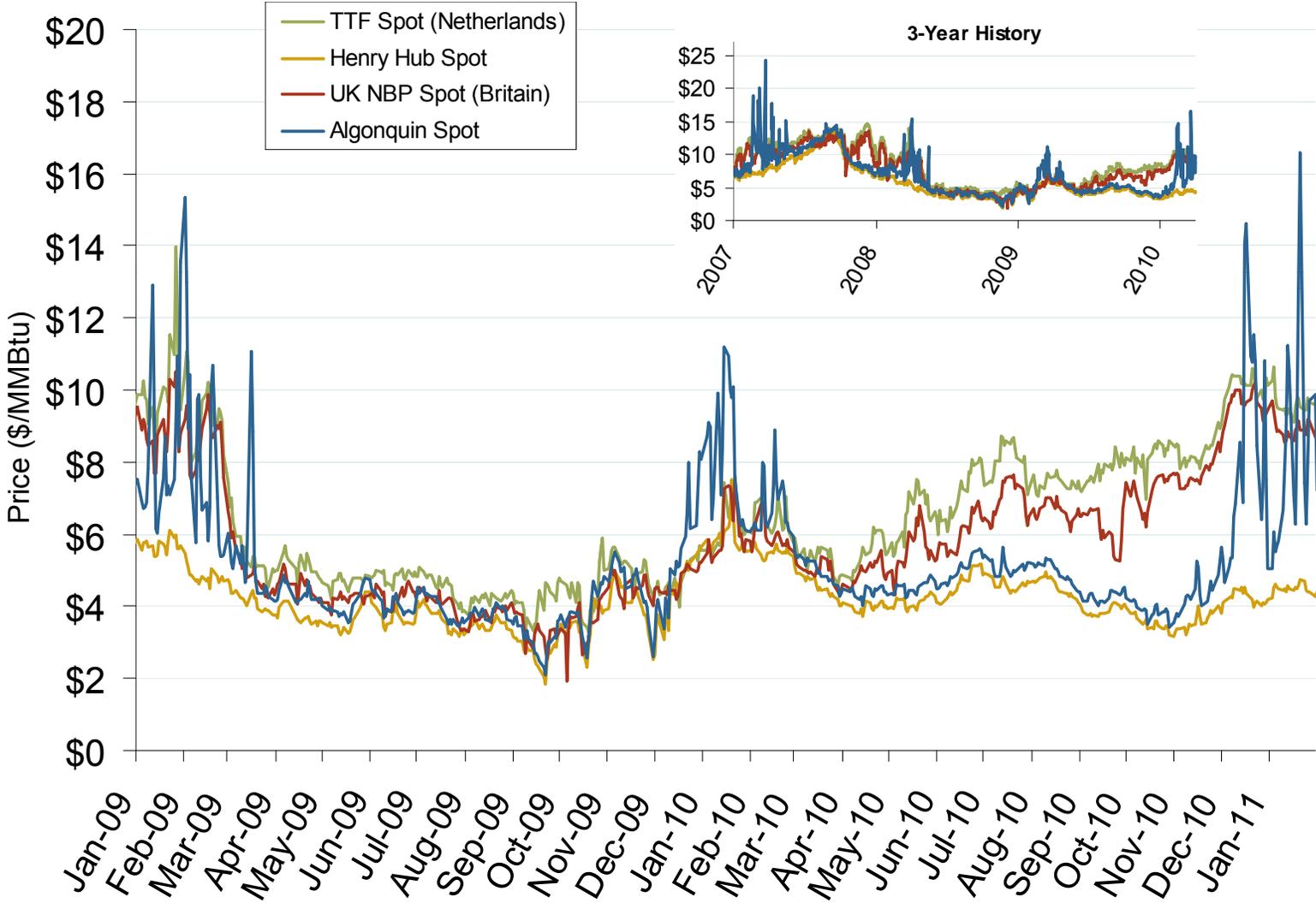
Updated February 7, 2011

# Natural Gas Storage Inventories – January 28, 2011



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

# Atlantic Basin European and US Spot Natural Gas Prices



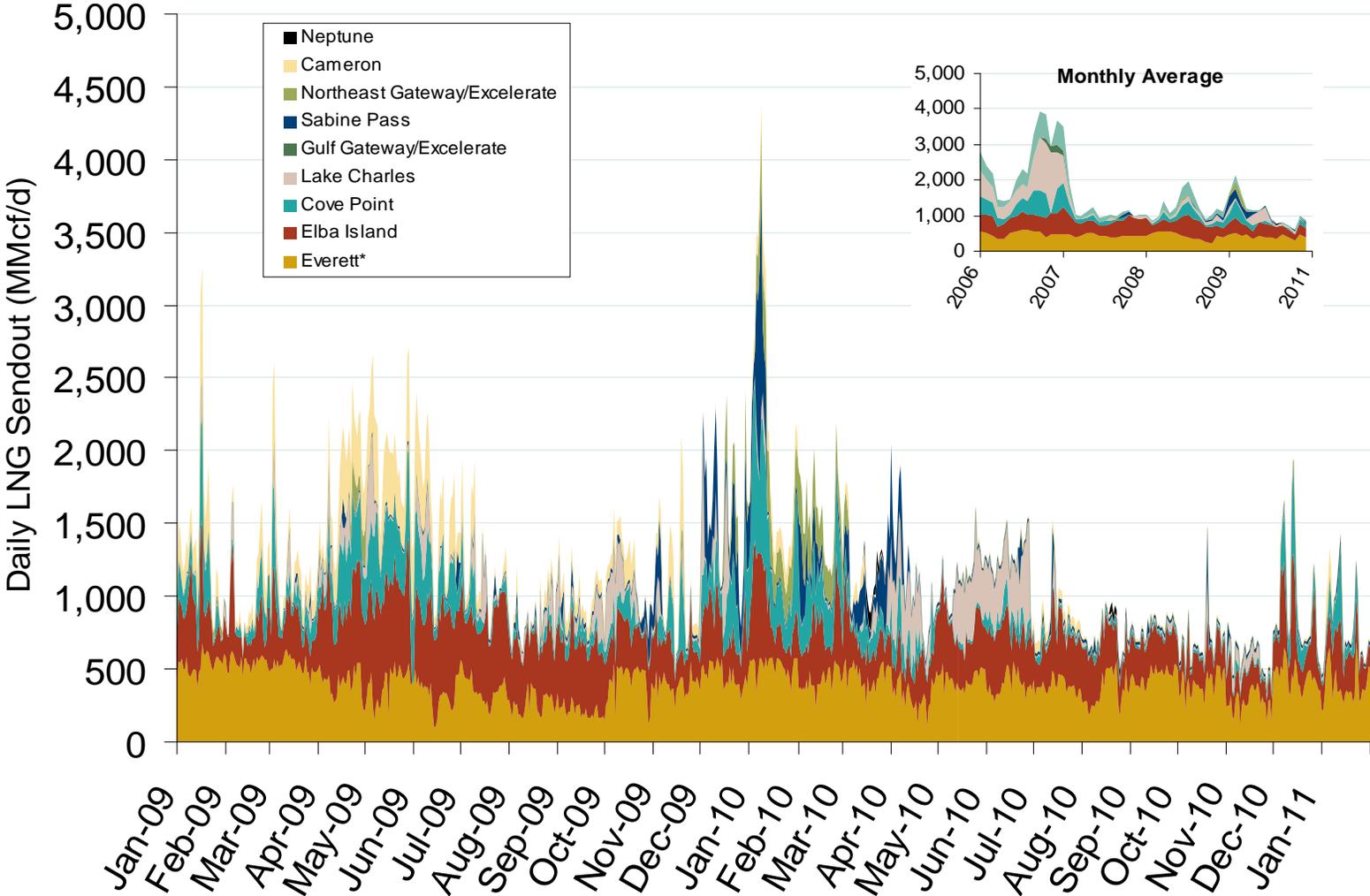
Source: Derived from Bloomberg and ICE data.

Updated: February 07, 2011

## World LNG Estimated March 2011 Landed Prices



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

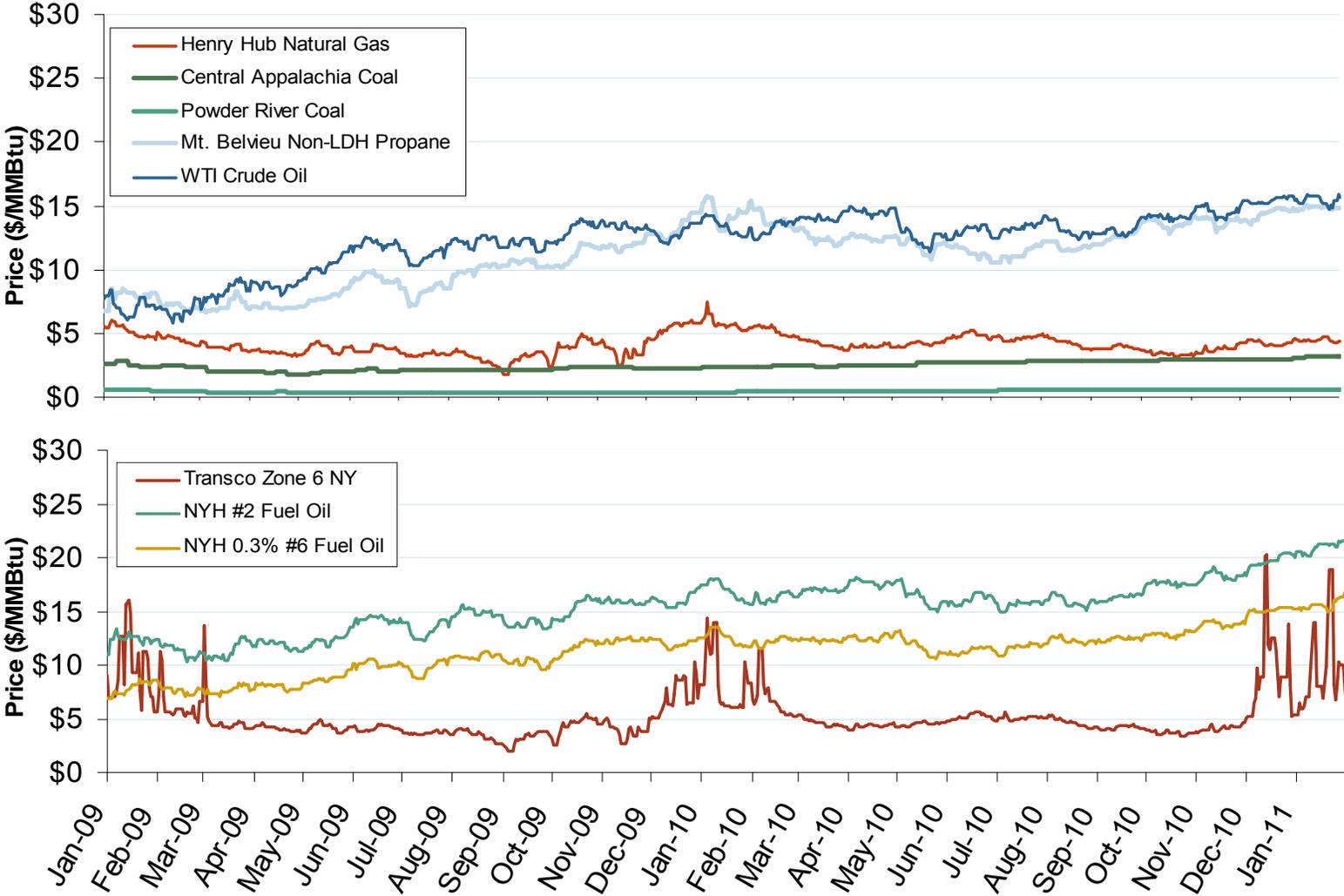


Source: Derived from *Bentek* data.

\* 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 February 7, 2011

# Oil, Coal, Natural Gas and Propane Daily Spot Prices

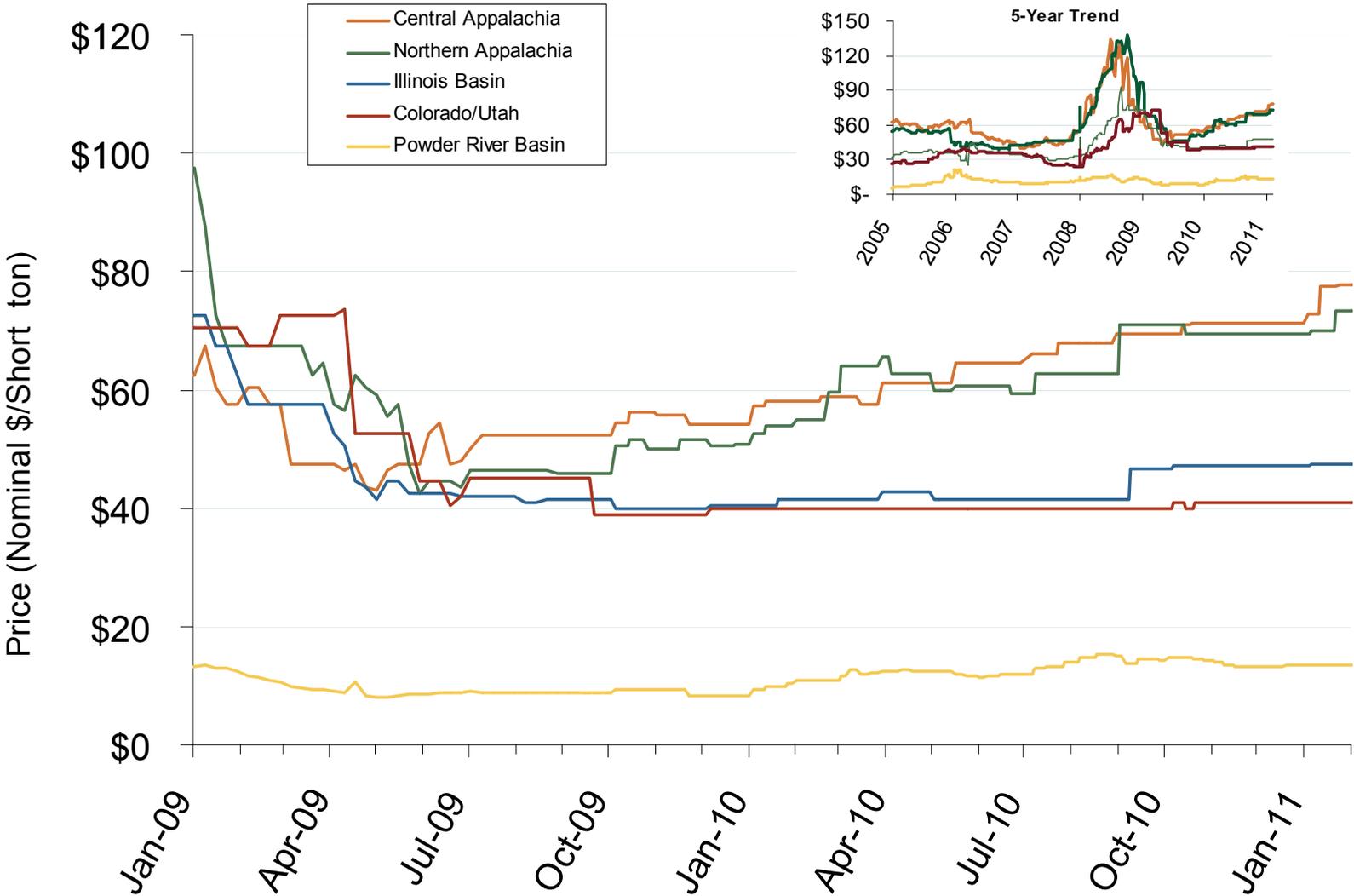


Source: Derived from ICE and Bloomberg data.

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: February 07, 2011

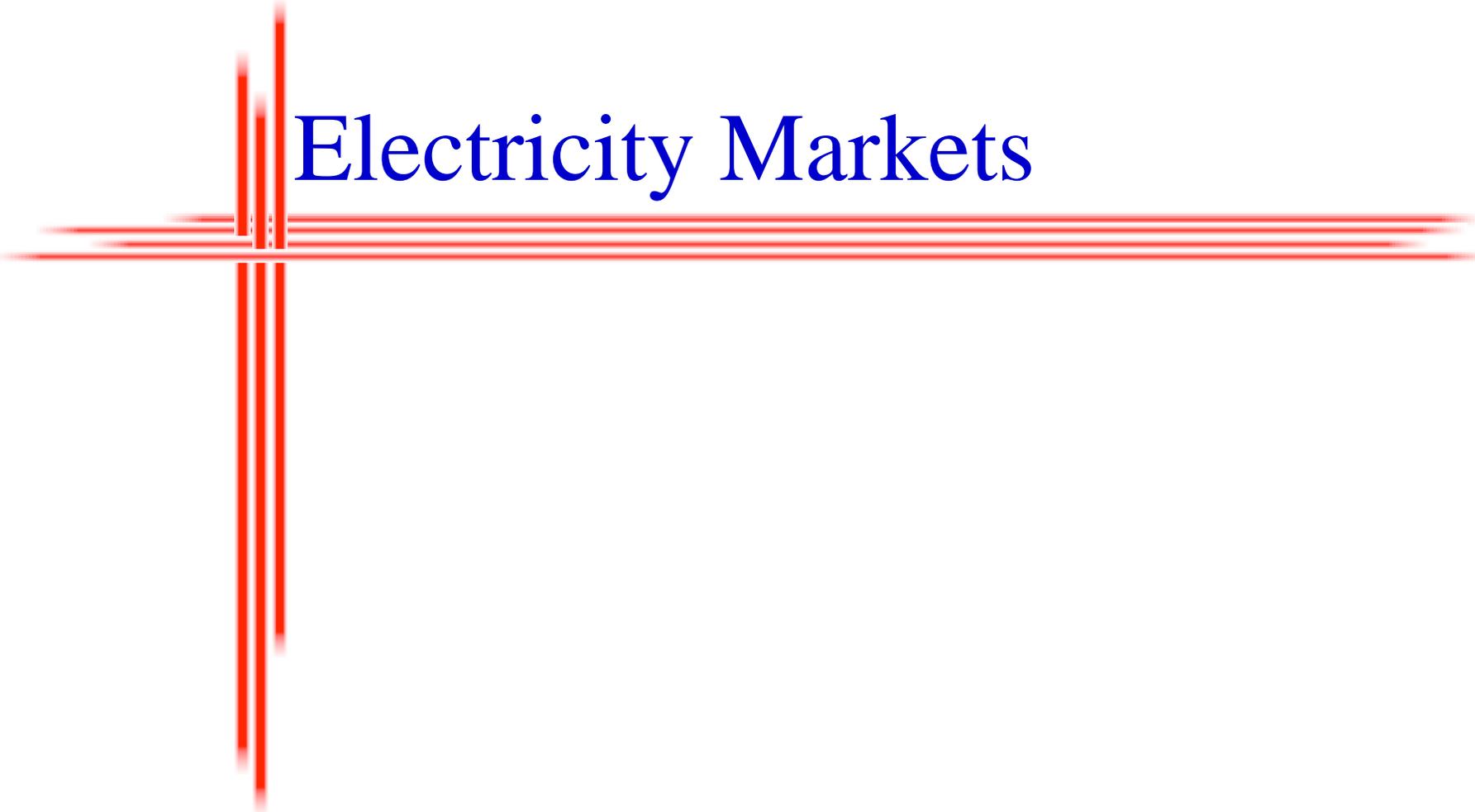
# Regional Coal Spot Prices



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.

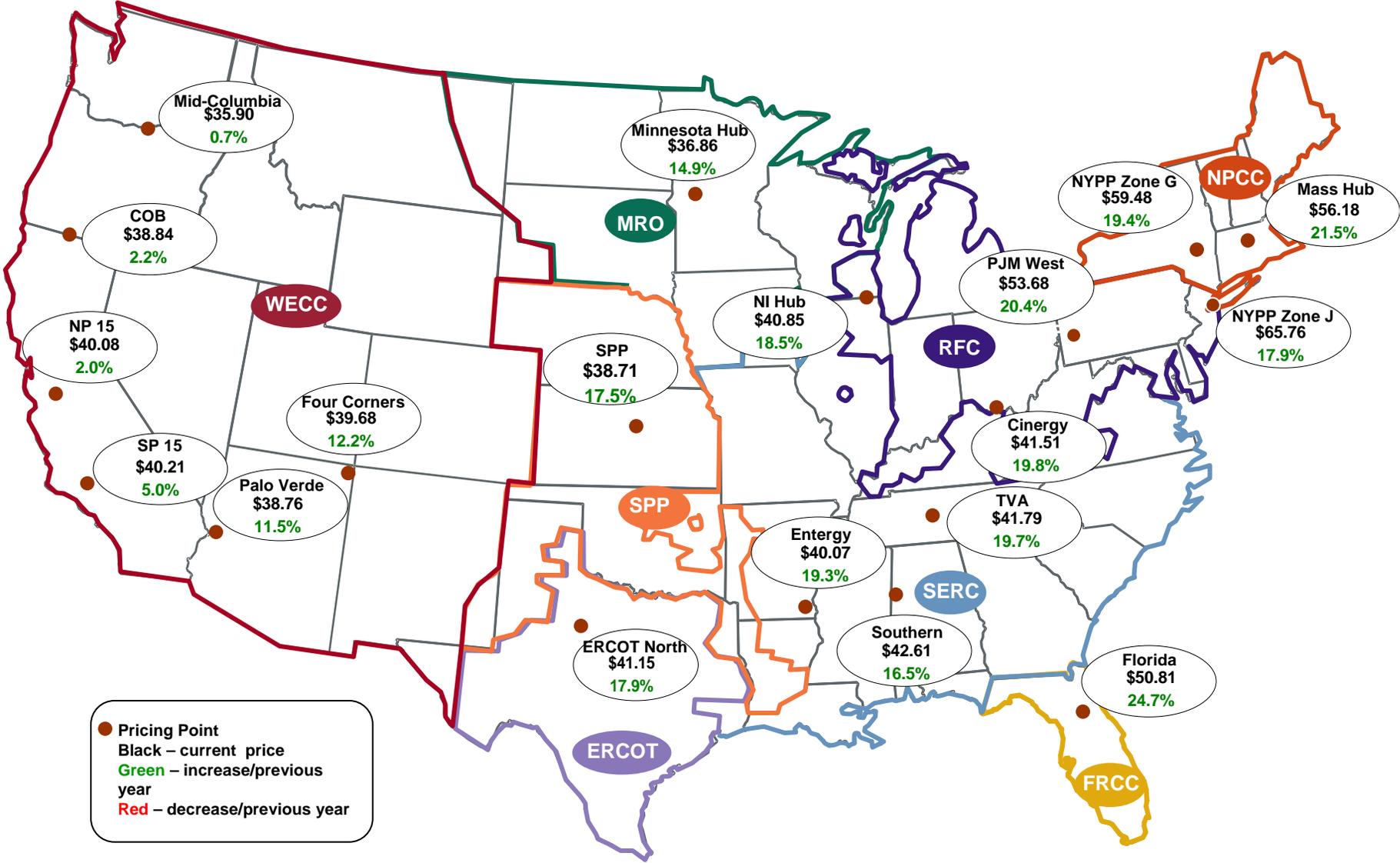
Source: Derived from Bloomberg data.  
February 2011 Western Snapshot Report

Updated: February 07, 2011



# Electricity Markets

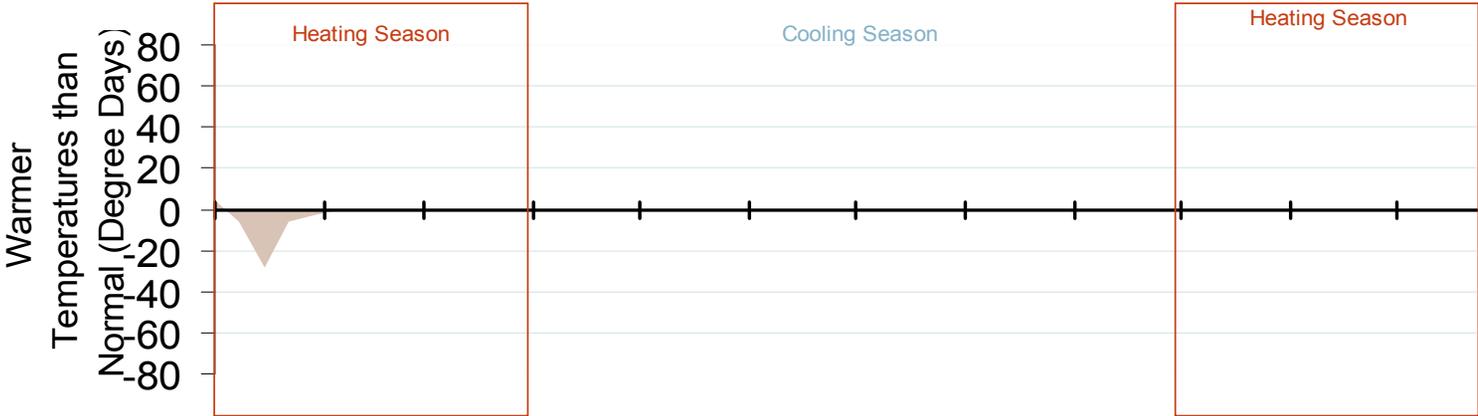
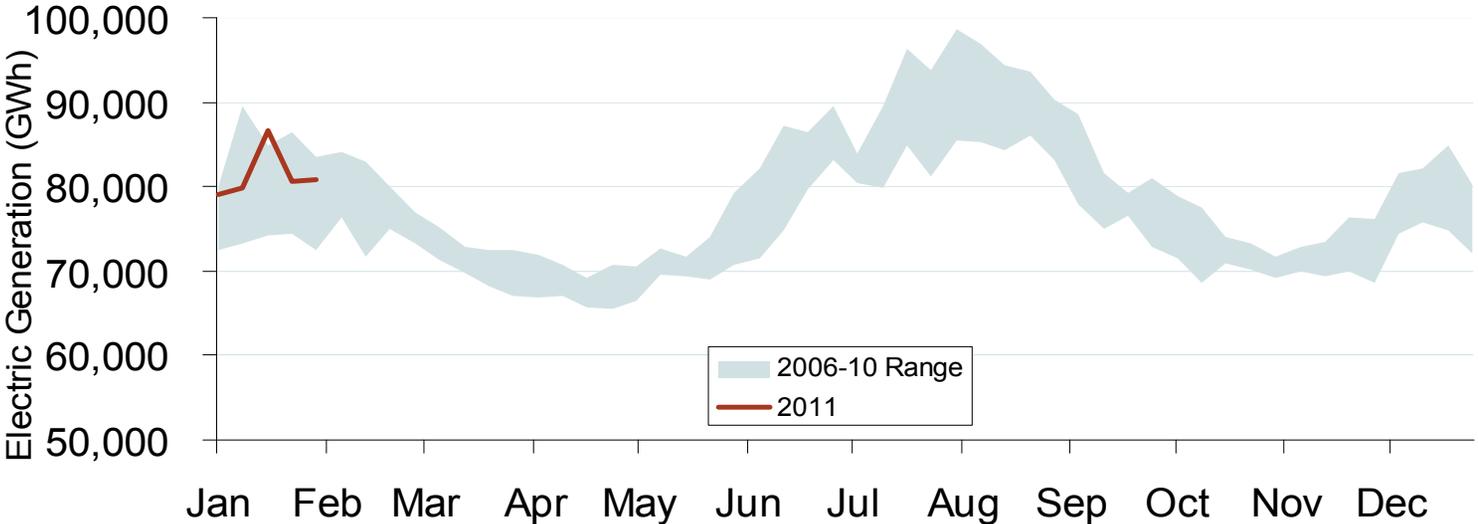
# Average On-Peak Spot Electric Prices 2010 (\$/MWh)



Source: Derived from *Platts* data.  
February 2011 Western Snapshot Report

Updated January 4, 2011

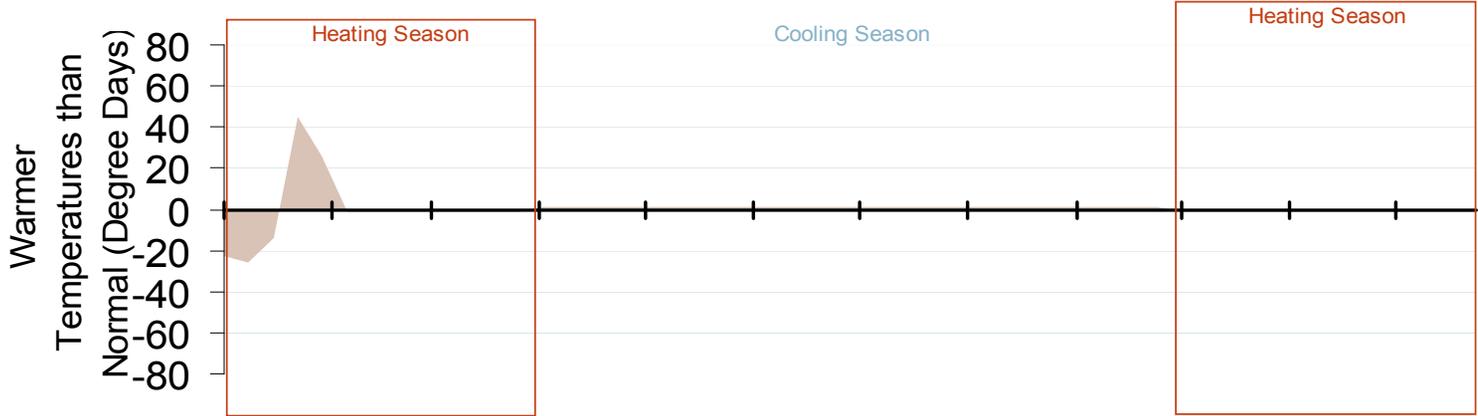
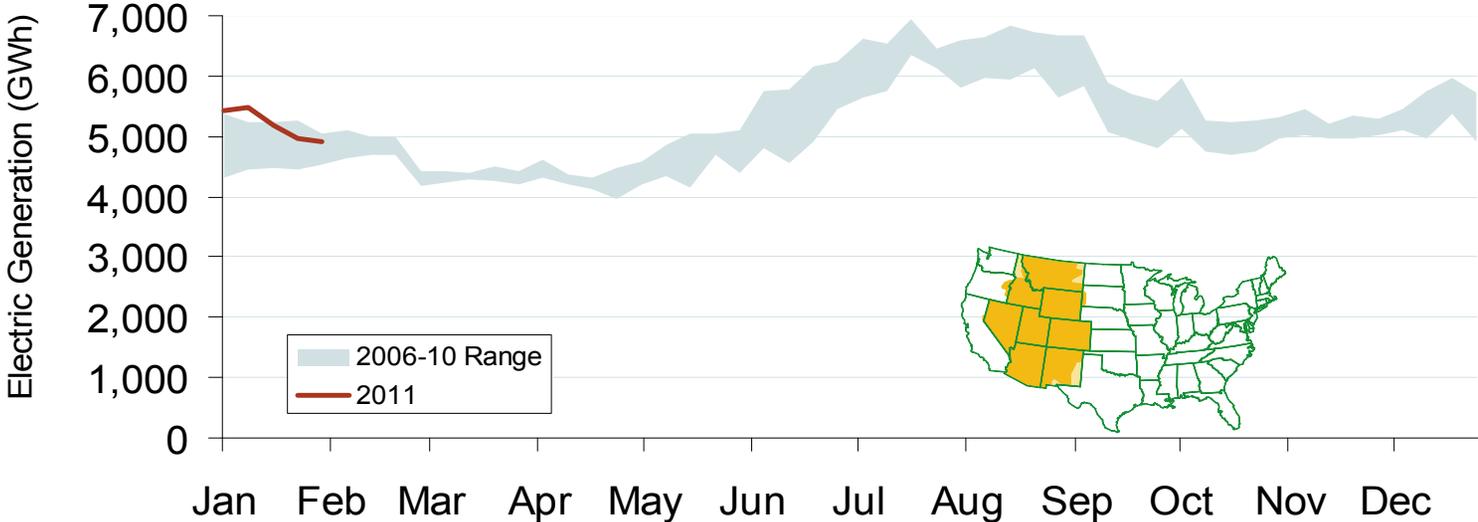
# Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from EEI and NOAA data.

Updated: February 04, 2011

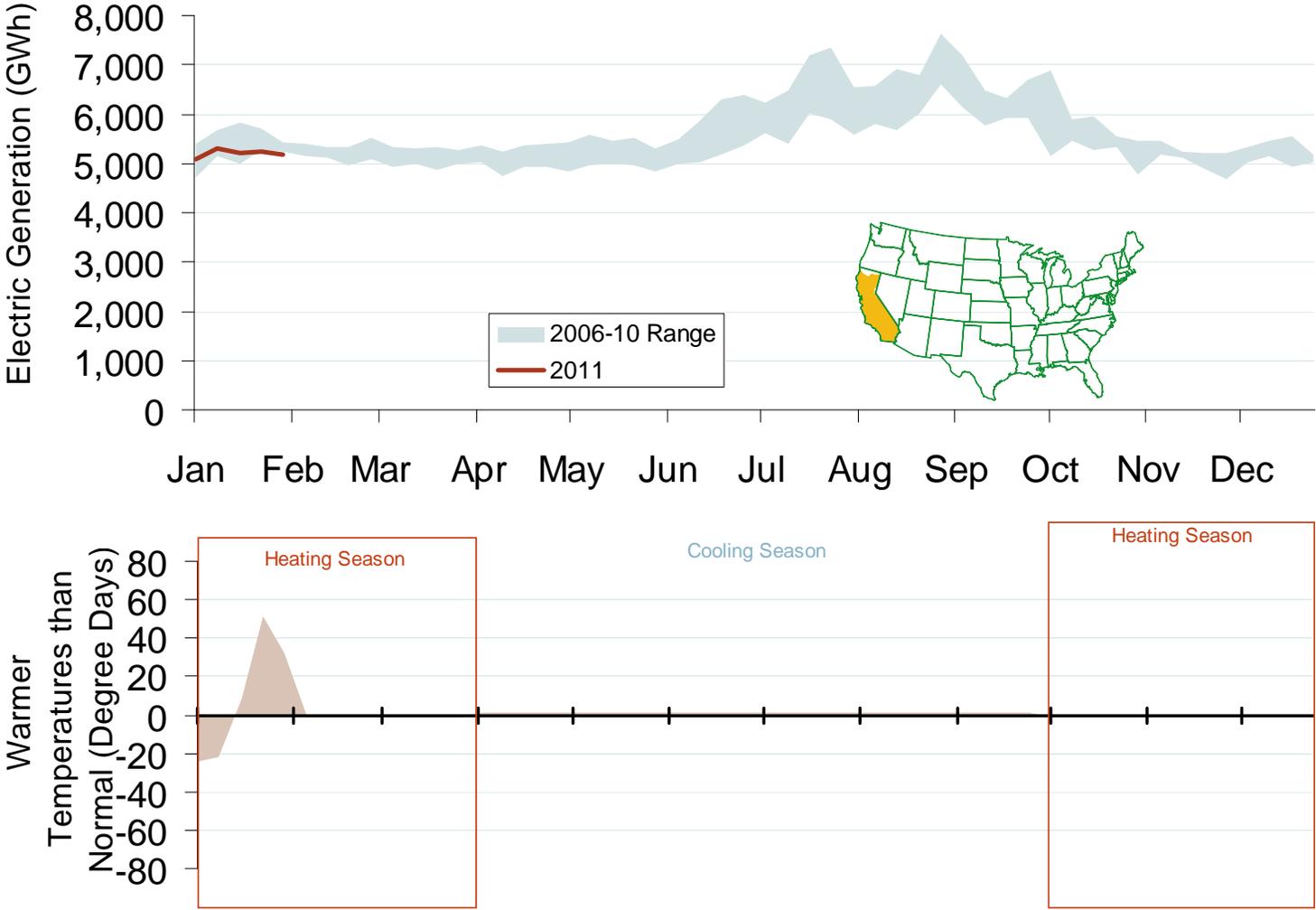
# Weekly Electric Generation Output and Temperatures Southwest



Source: Derived from EEI and NOAA data.

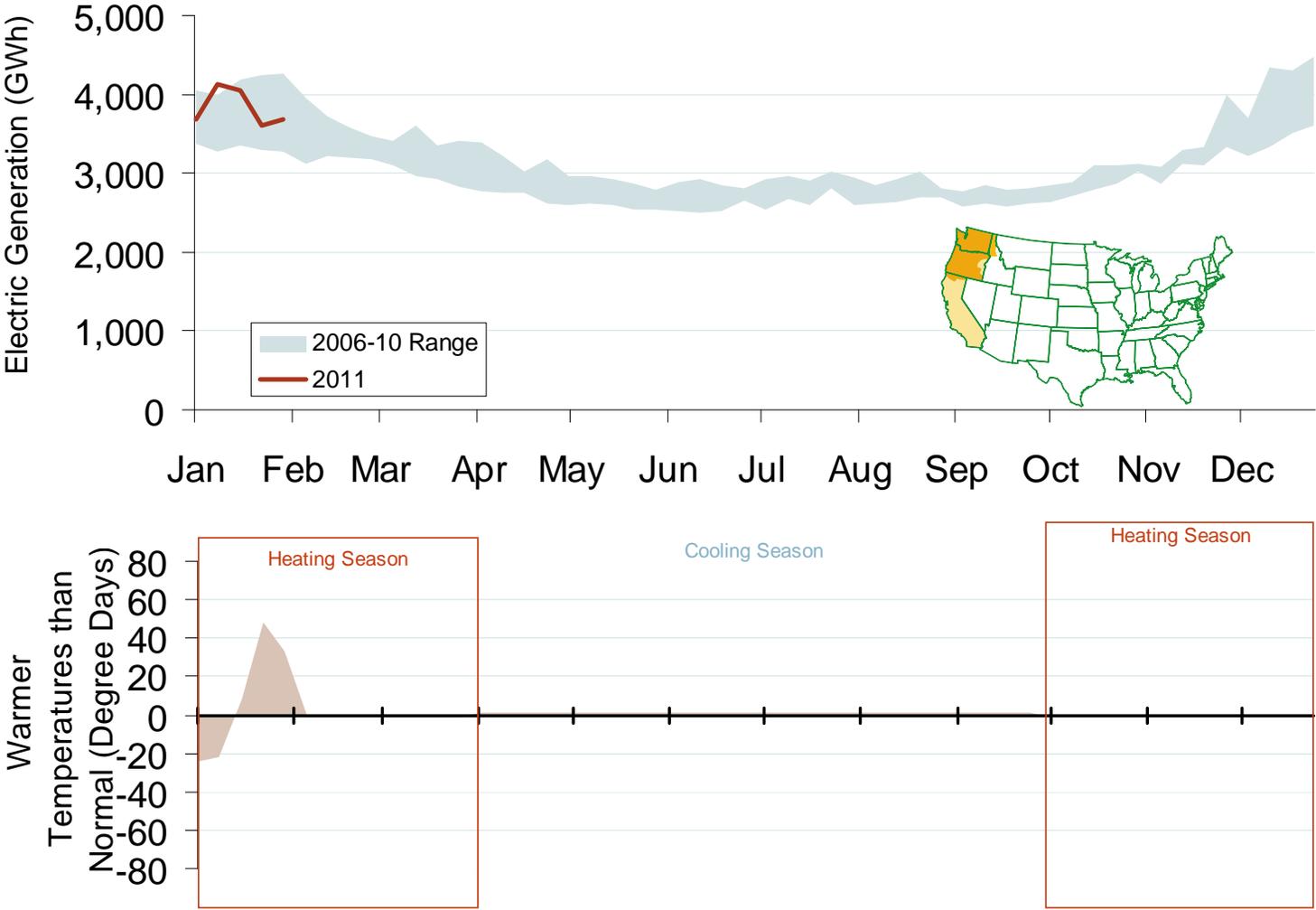
Updated: February 04, 2011

# Weekly Electric Generation Output and Temperatures California



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

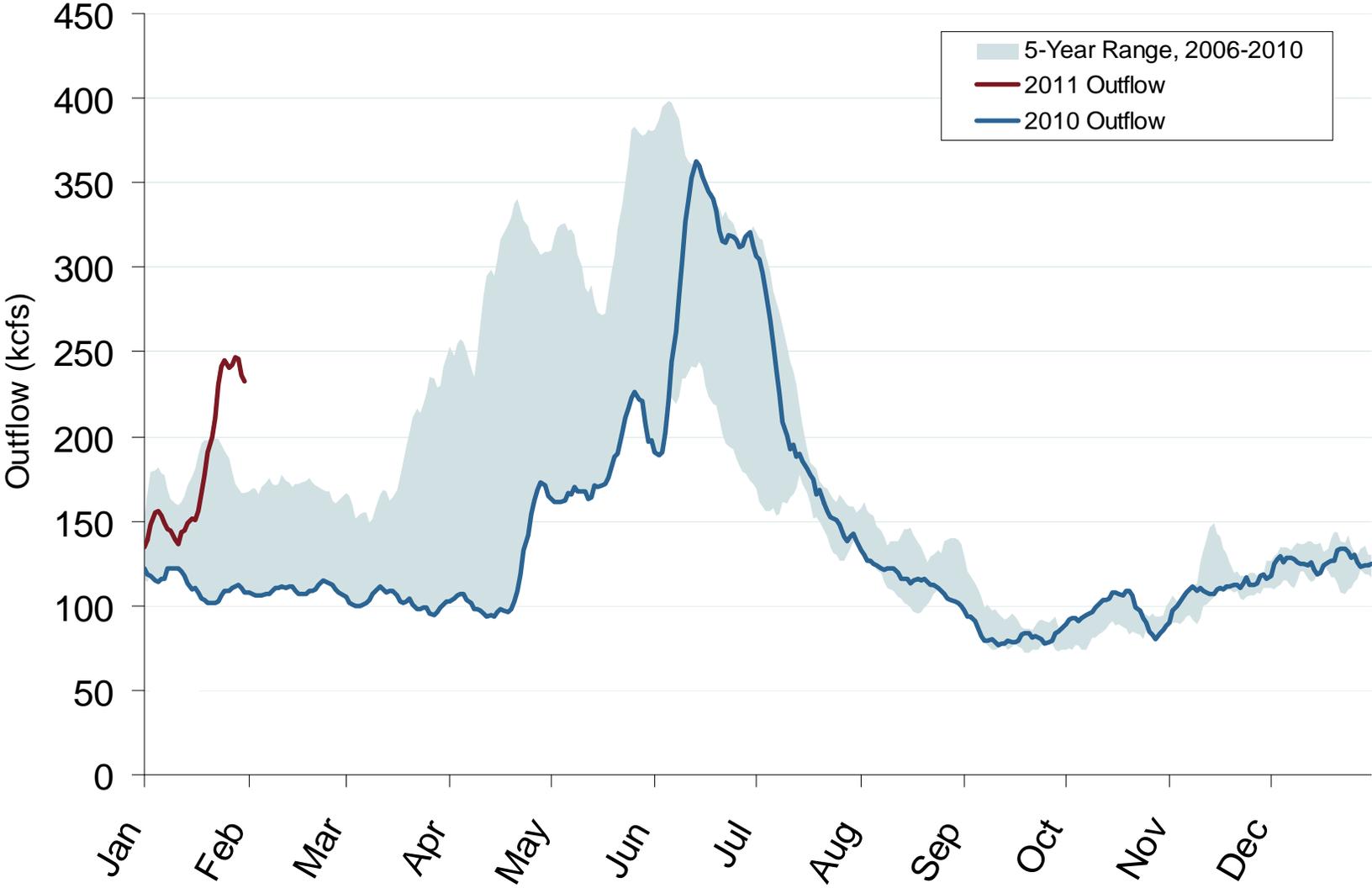
# Weekly Electric Generation Output and Temperatures Pacific Northwest Region



Source: Derived from *EEl* and *NOAA* data.  
February 2011 Western Snapshot Report

Updated February 7, 2011

# Stream Flow at The Dalles Dam



Source: Derived from USACE data.

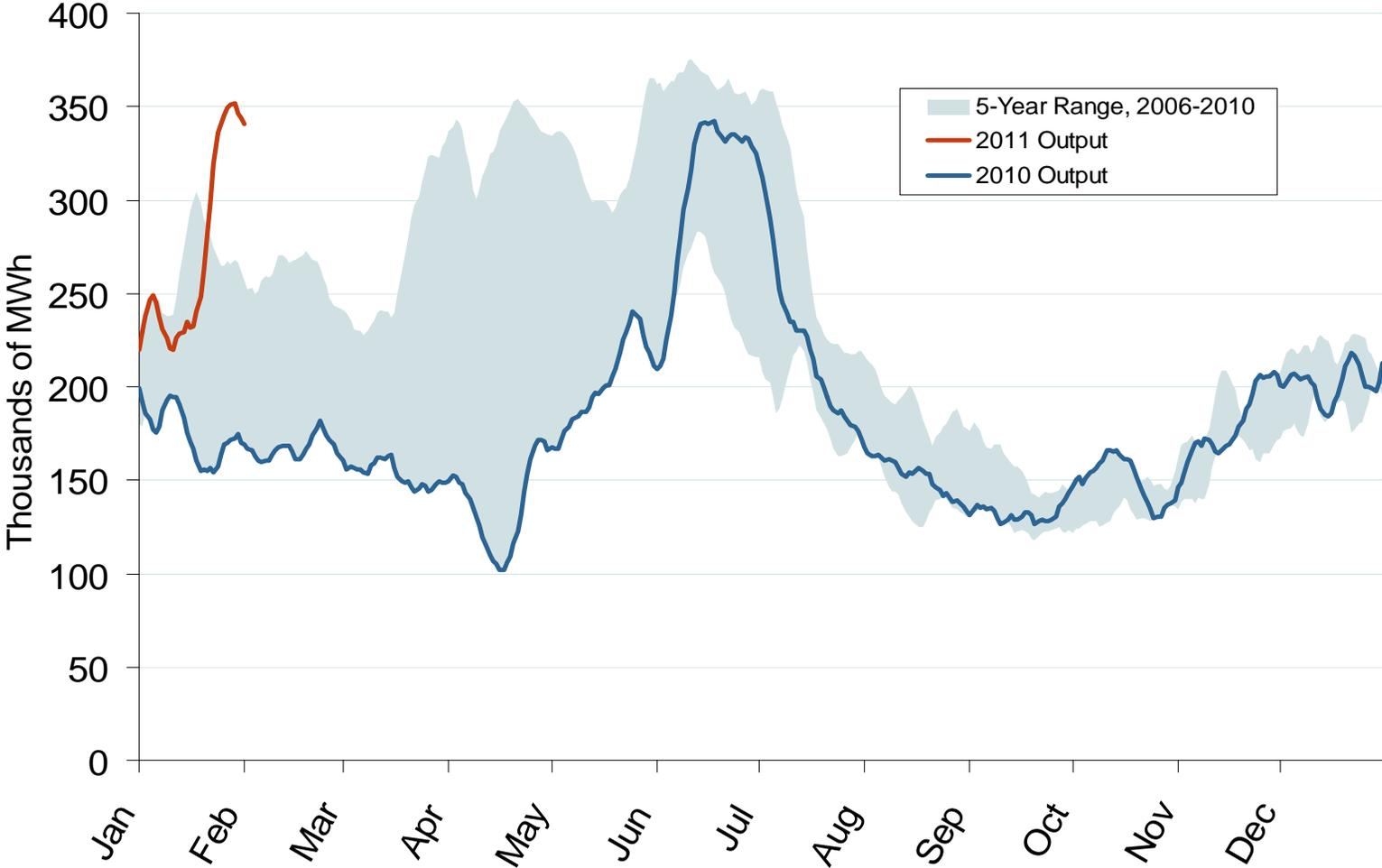
Trend lines are 7-day moving averages.

## Pacific/Northwest Hydro and Snowpack Levels

|                         | Hydro Generation                    |  | Snow Water Equivalent <sup>3</sup>              |  |                            |
|-------------------------|-------------------------------------|--|---|--|----------------------------|
|                         | In-State Capacity (MW) <sup>1</sup> | Additional Capacity Created Downstream (MW) <sup>2</sup> | One Year Ago (2/3/10) (% of historical average) | Current (2/3/11) (% of historical average) | % Change from One Year Ago |
| <b>Washington</b>       | <b>21,500</b>                       | <b>0</b>   | <b>73%</b>                                      | <b>81%</b>                                 | <b>+8%</b>                 |
| <b>Oregon</b>           | <b>9,100</b>                        | <b>0</b>   | <b>79%</b>                                      | <b>81%</b>                                 | <b>+2%</b>                 |
| <b>California</b>       | <b>10,400</b>                       | <b>0</b>   | <b>115%</b>                                     | <b>127%</b>                                | <b>+12%</b>                |
| <b>Idaho</b>            | <b>2,700</b>                        | <b>19,700</b>  | <b>68%</b>                                      | <b>97%</b>                                 | <b>+29%</b>                |
| <b>Montana</b>          | <b>2,700</b>                        | <b>16,200</b>  | <b>67%</b>                                      | <b>109%</b>                                | <b>+42%</b>                |
| <b>British Columbia</b> | <b>10,000</b>                       | <b>16,200</b>  | <b>91%</b>                                      | <b>85%</b>                                 | <b>-6%</b>                 |

- <sup>1</sup> Net summer capacity in megawatts by state (EIA).
- <sup>2</sup> 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.
- <sup>3</sup> 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).

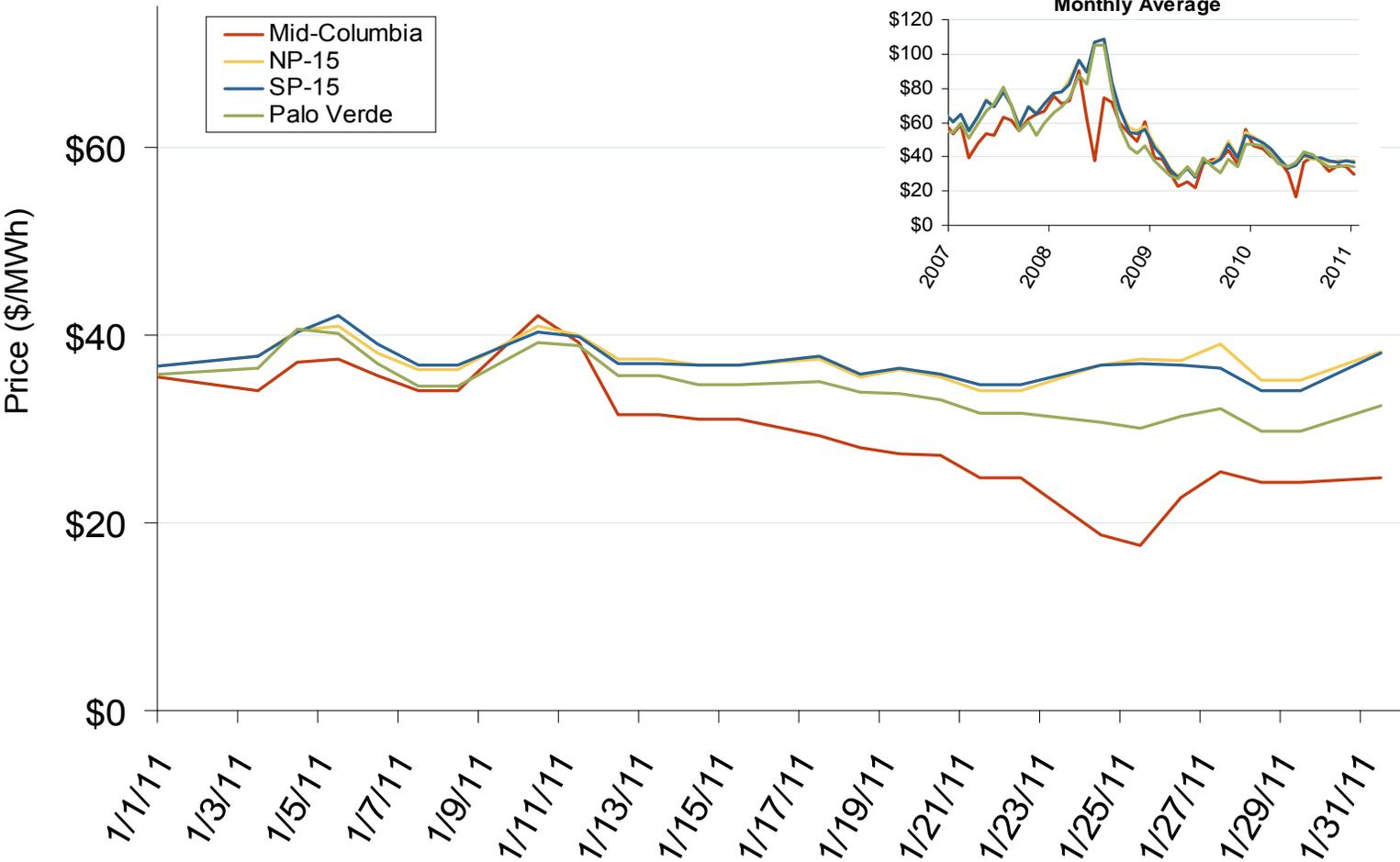
# Pacific Northwest Hydroelectric Production



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

Note: Trend lines are 7-day moving averages.

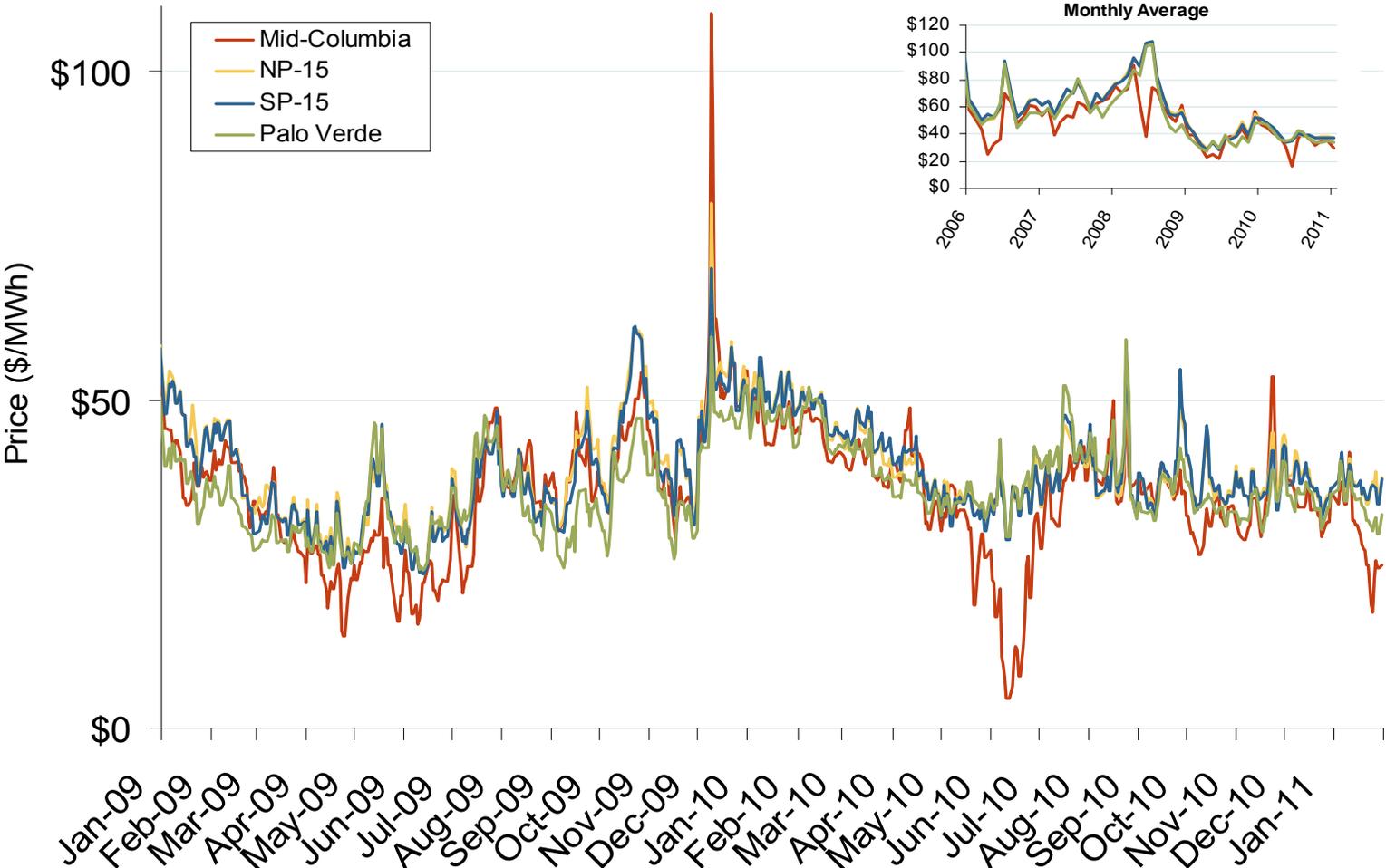
# Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated: February 03, 2011

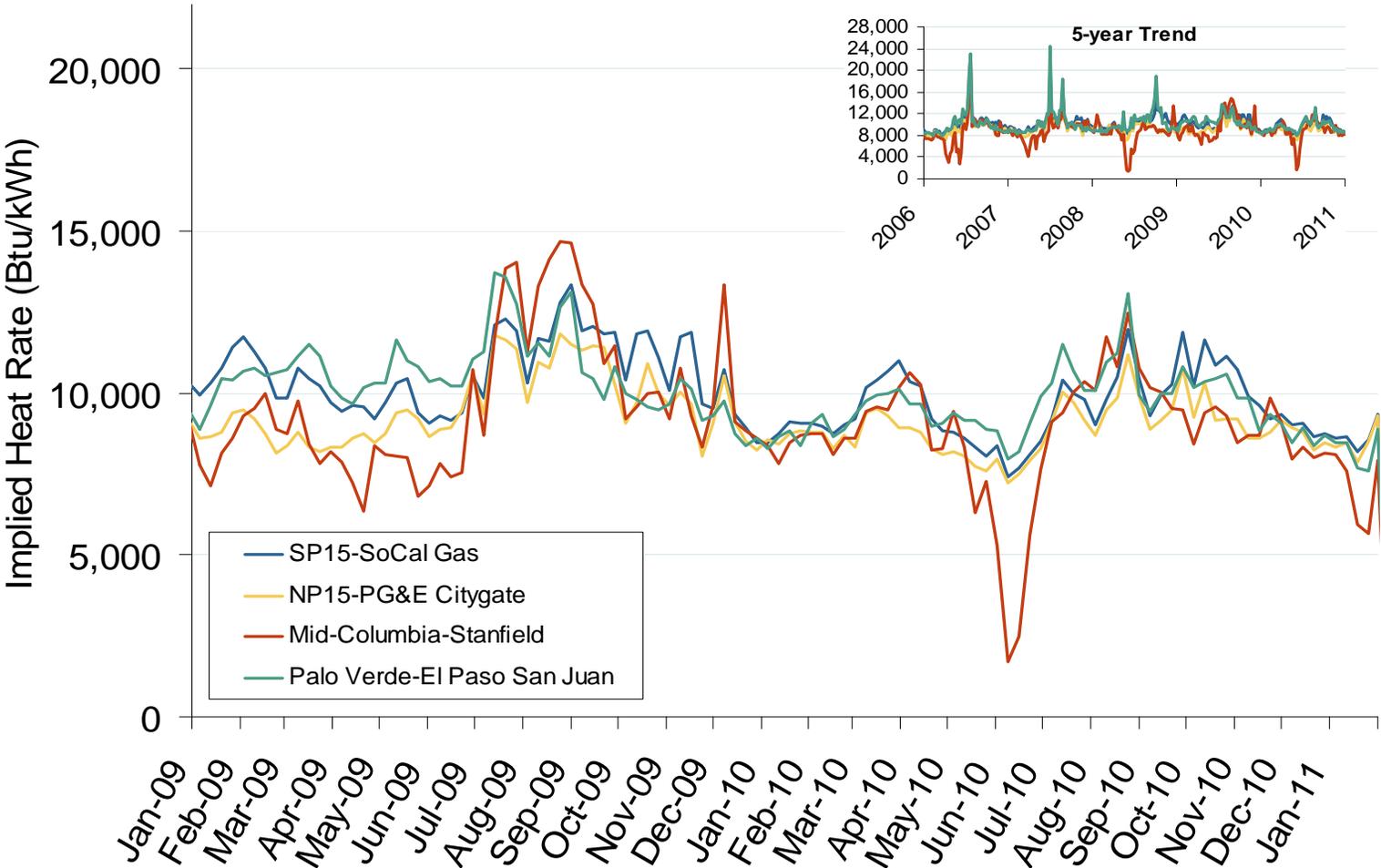
# Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.

Updated: February 03, 2011

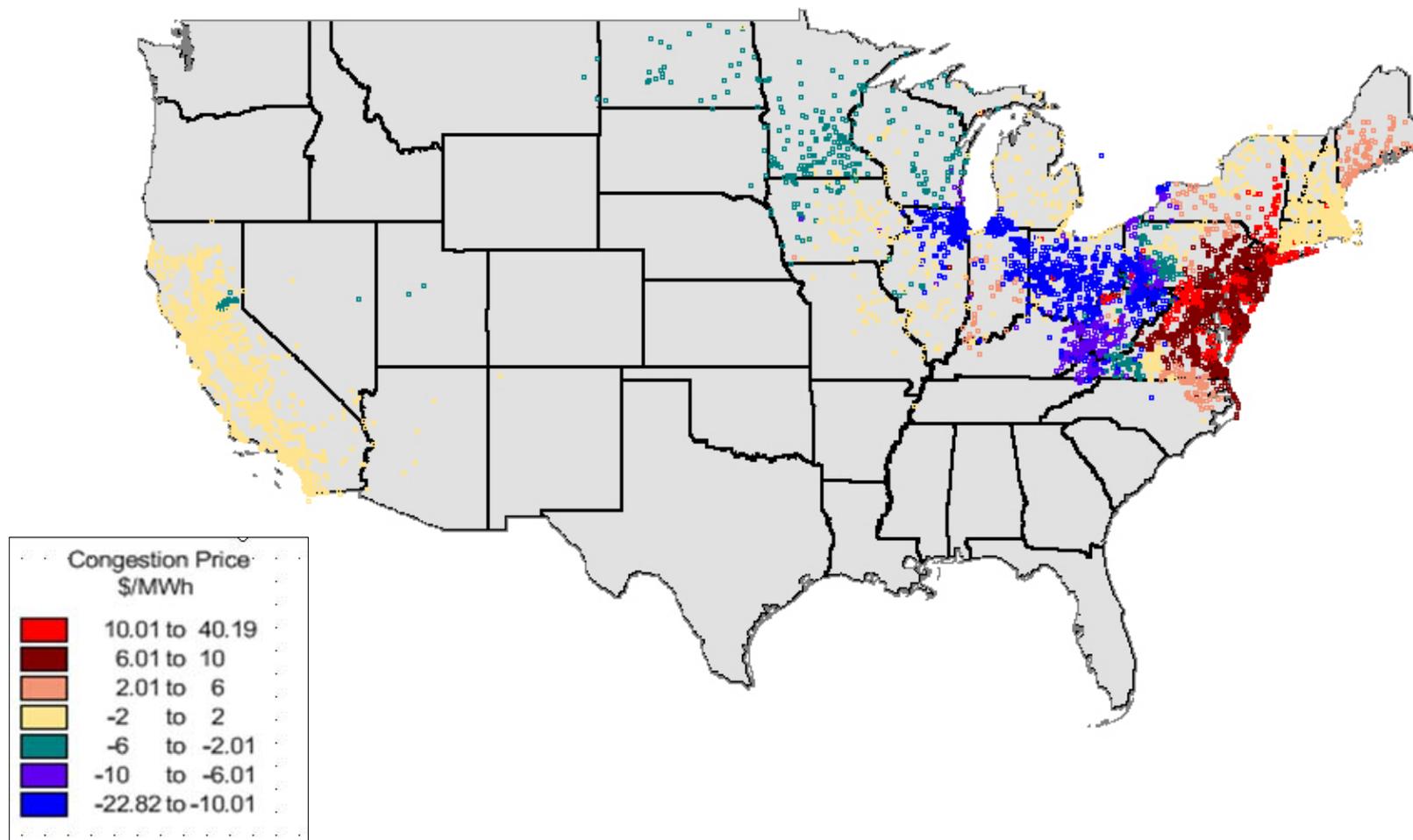
# Implied Heat Rates at Western Trading Points Weekly Averages



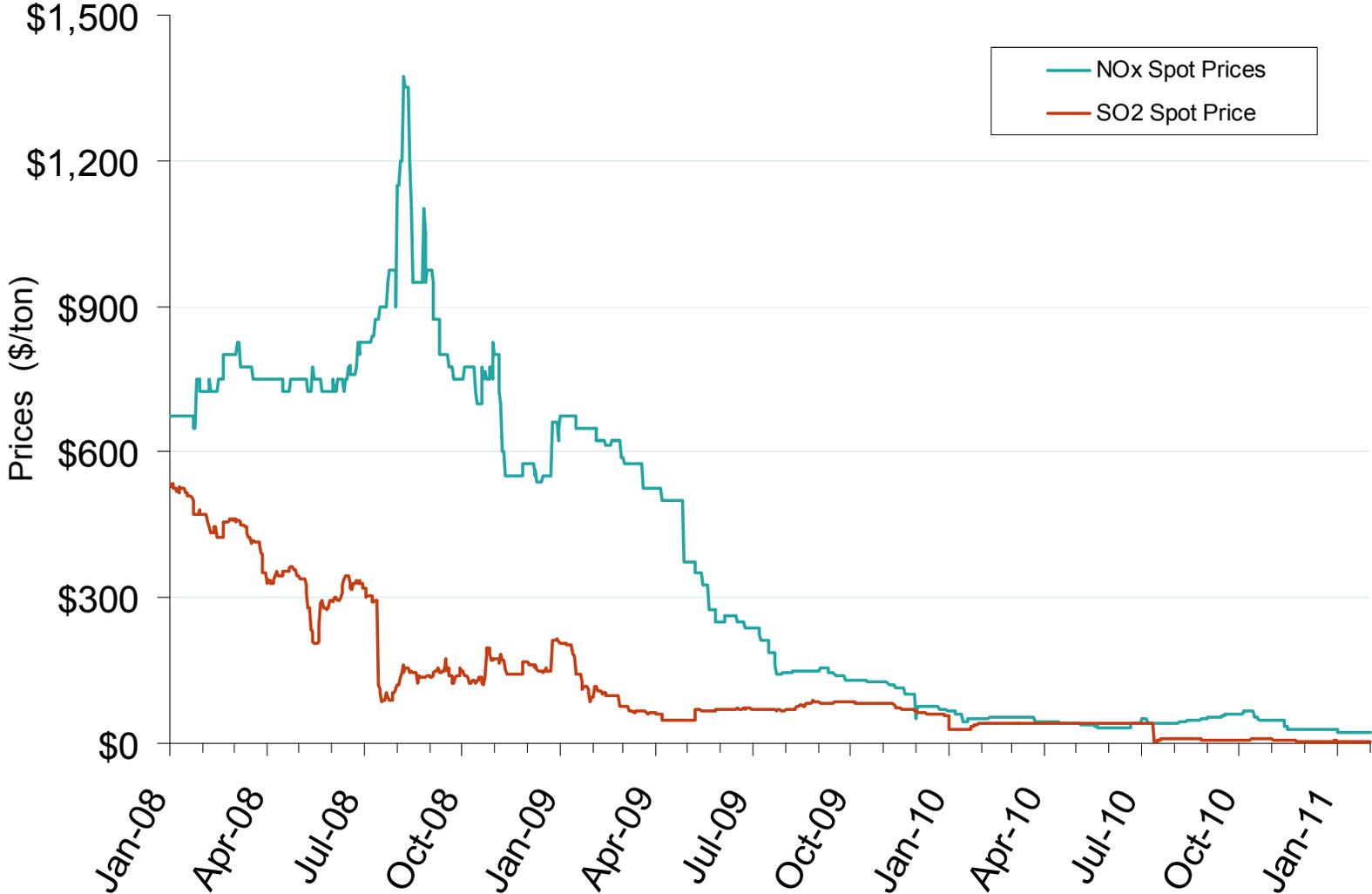
Source: Derived from *Platts* on-peak electric and natural gas price data.

Updated: February 04, 2011

## Day Ahead On-Peak Congestion Average Monthly Prices January 2011



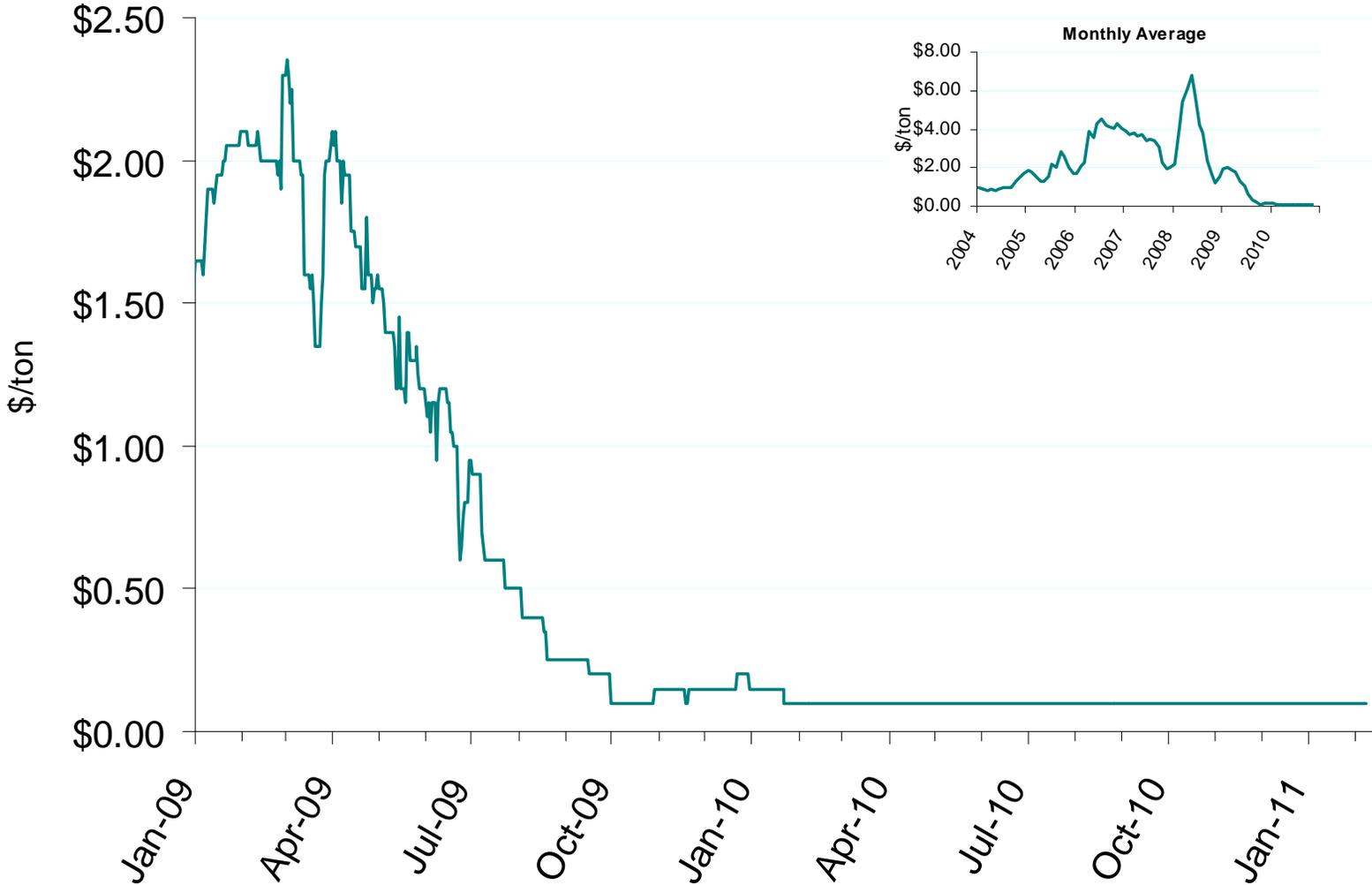
# SO2 Allowance Spot Prices and NOx Seasonal Allowance Spot Prices



Source: Derived from Bloomberg data.

Updated: February 09, 2011

# Chicago Climate Exchange CO2 Index



Source: Derived from *Bloomberg*.  
February 2011 Western Snapshot Report

Updated February 7, 2011