

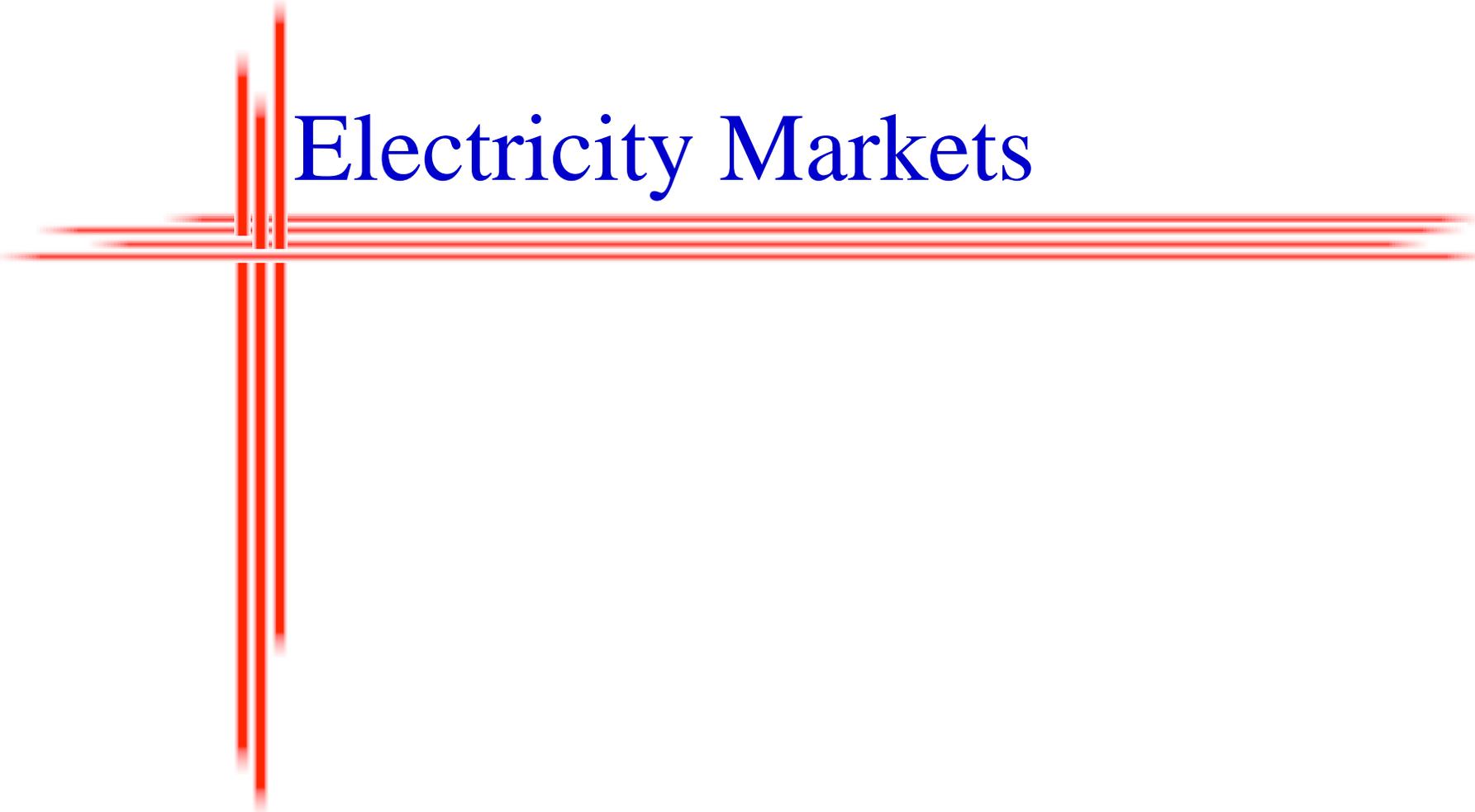
# OE ENERGY MARKET SNAPSHOT

## Midwest States Version – June 2010 Data

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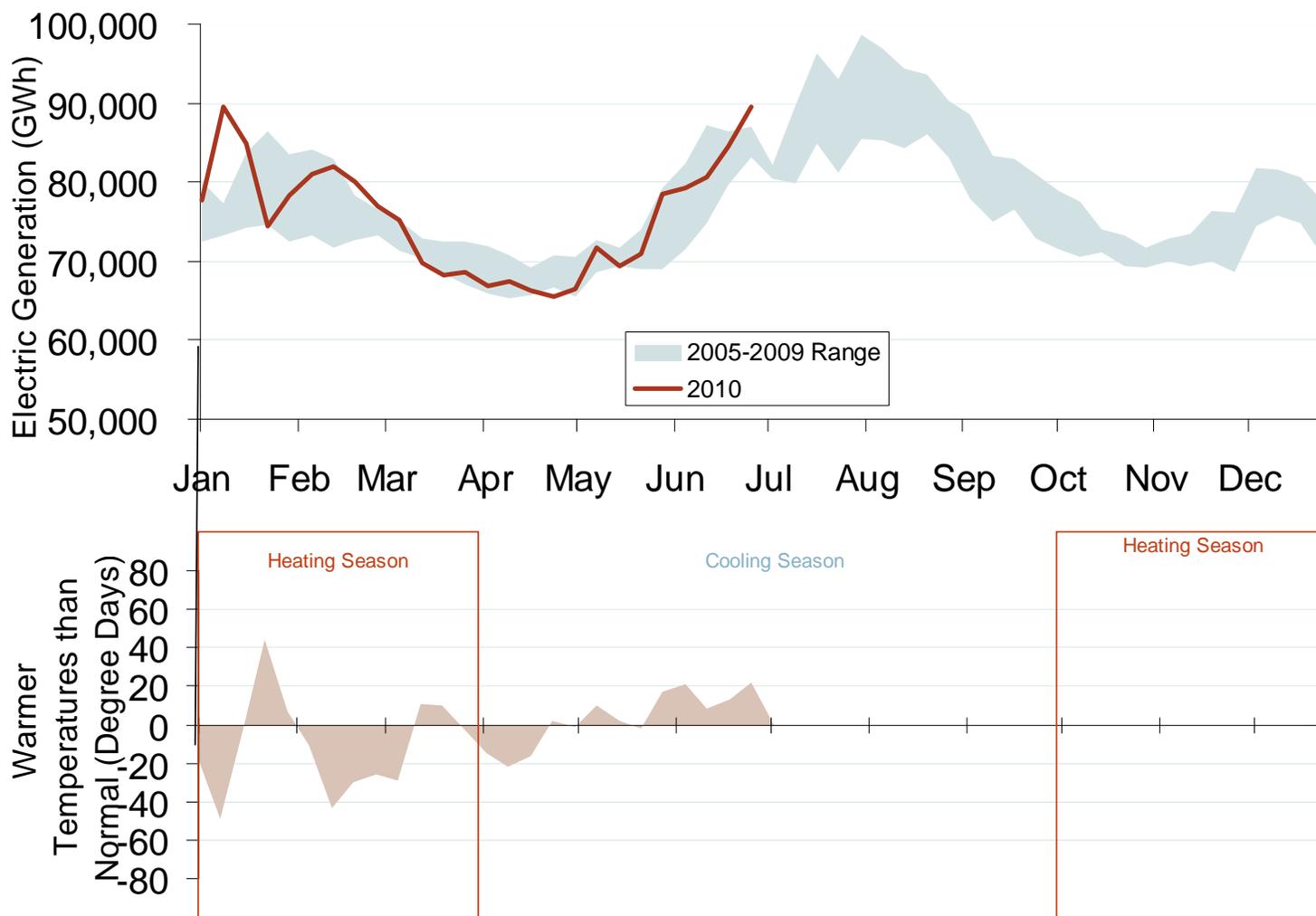
- **Electricity Markets**
- **Natural Gas and Fuel Markets**

Office of Enforcement  
Federal Energy Regulatory Commission  
July 2010

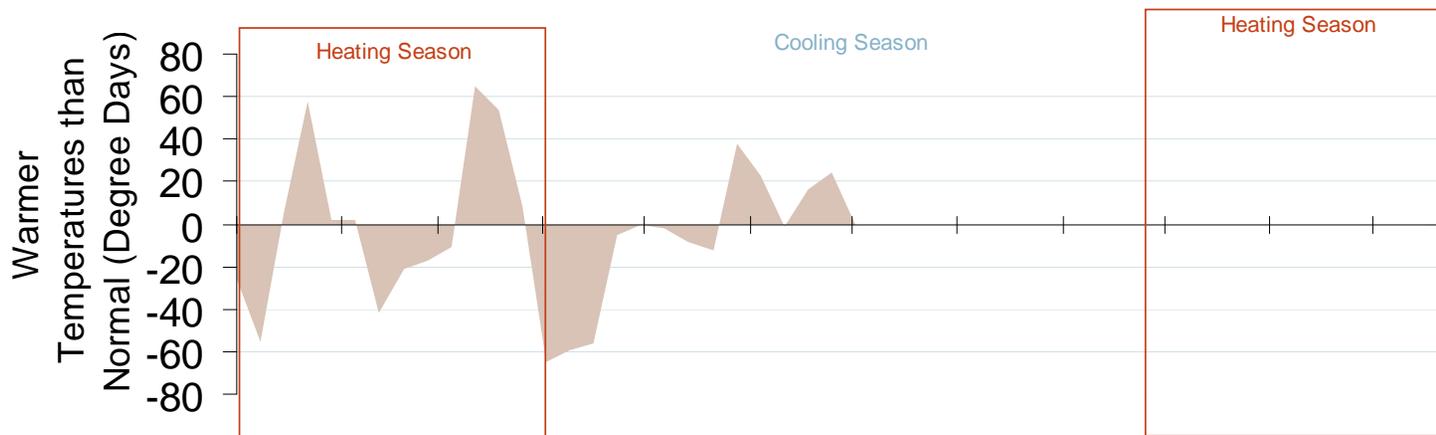
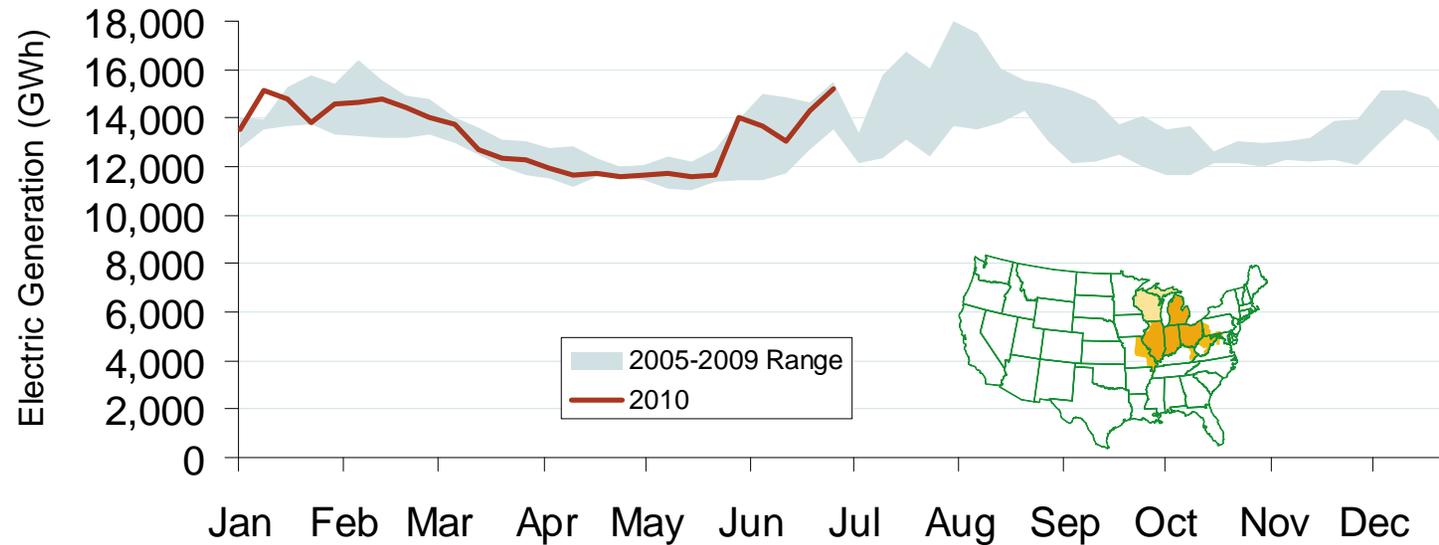


# Electricity Markets

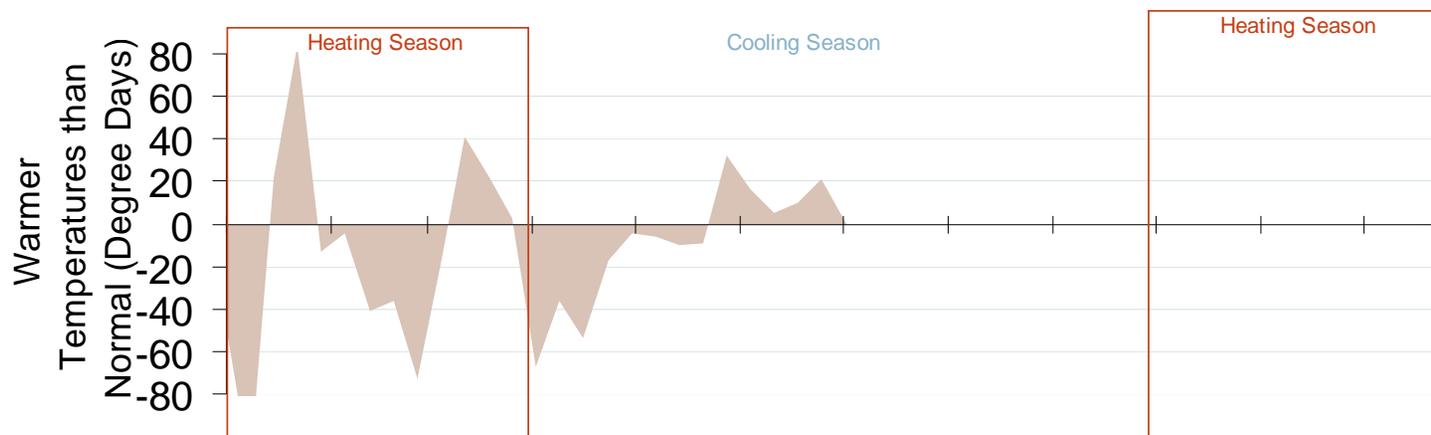
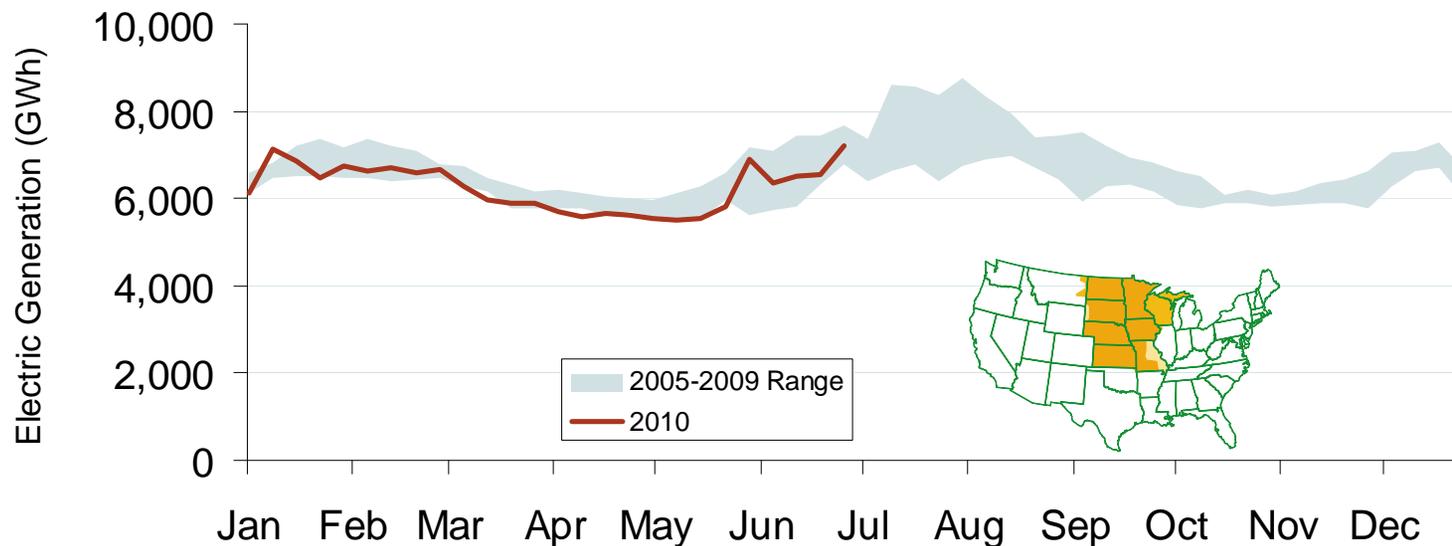
# Weekly U.S. Electric Generation Output and Temperatures



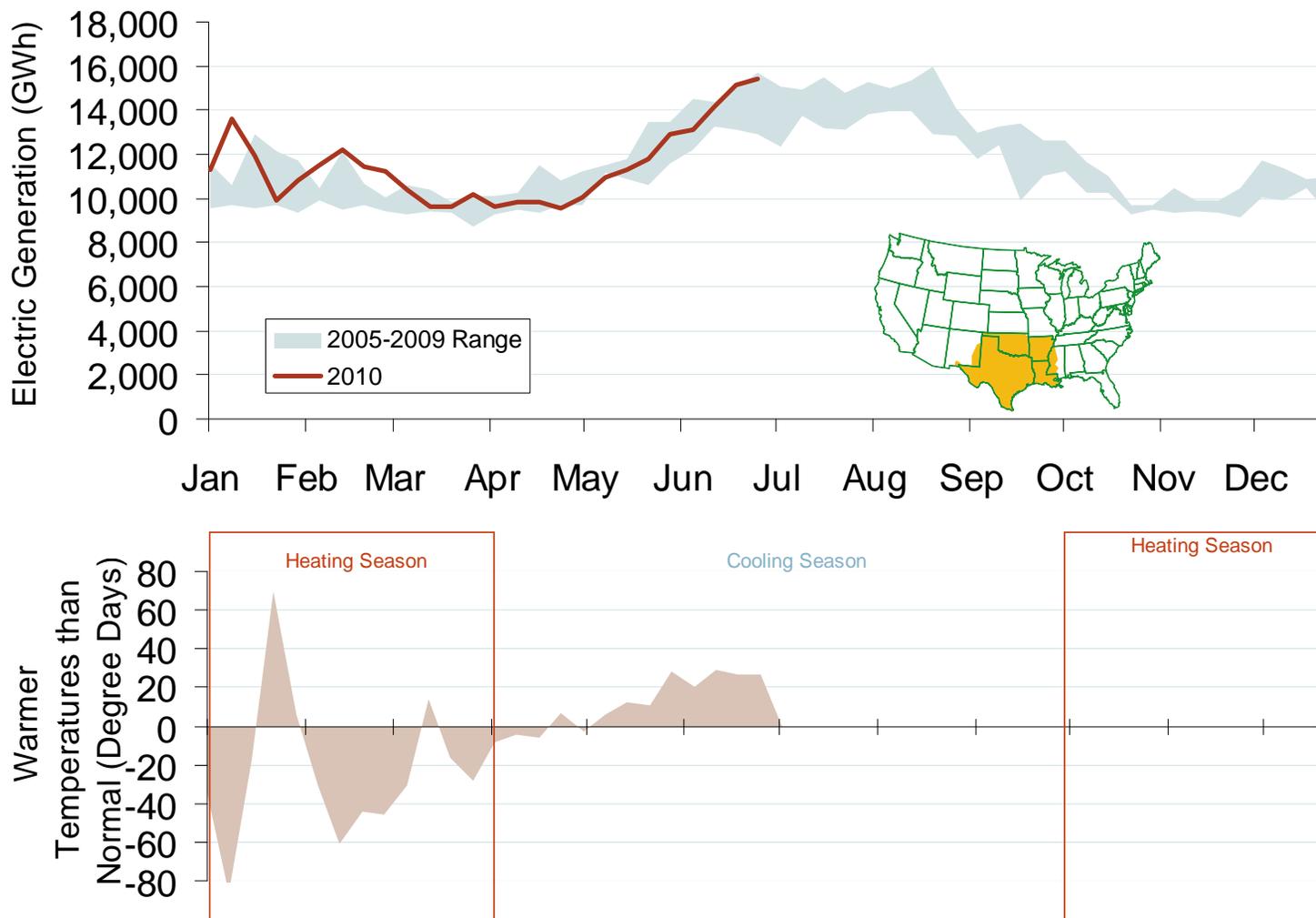
# Weekly Electric Generation Output and Temperatures Central Industrial Region



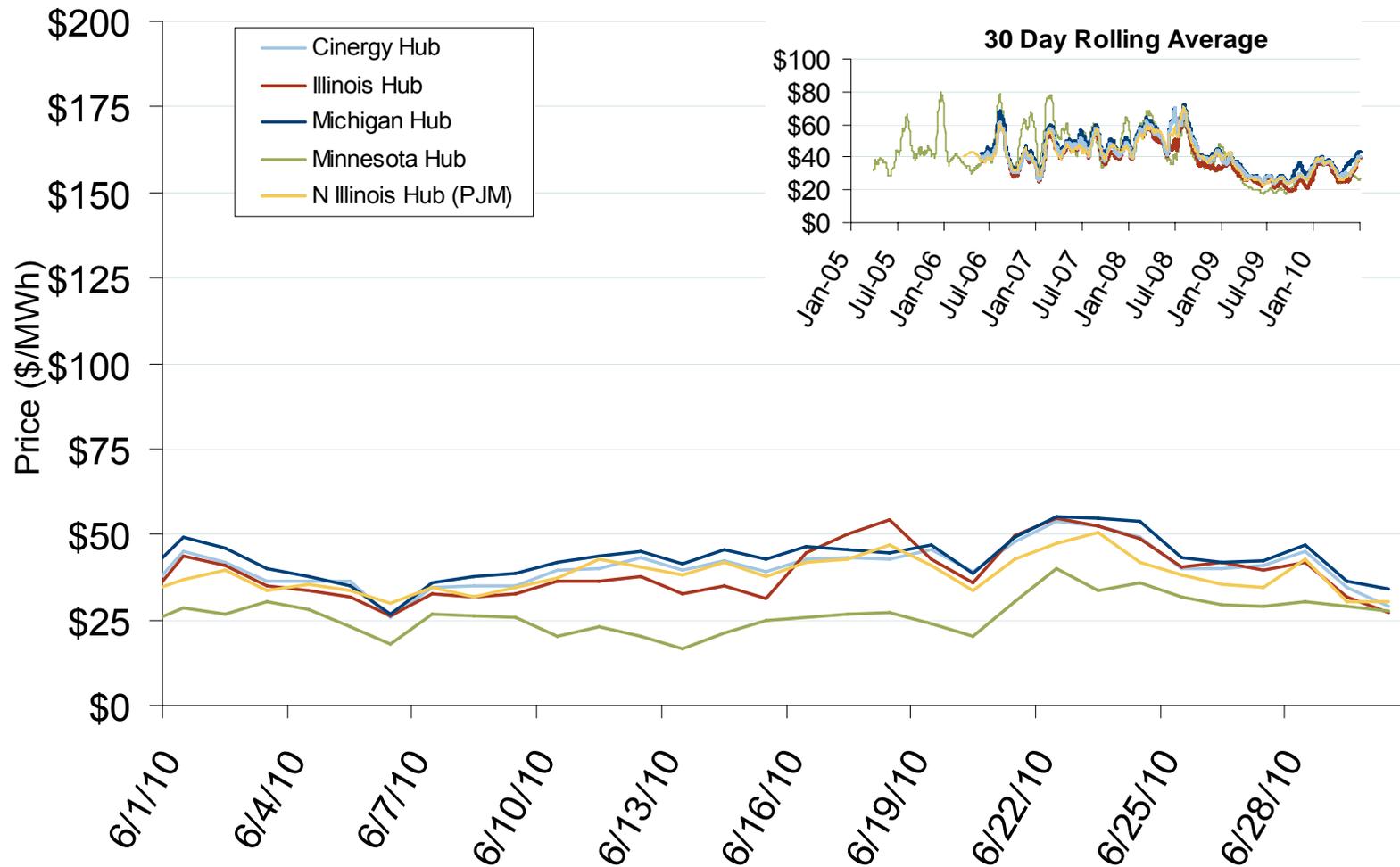
# Weekly Electric Generation Output and Temperatures West Central Region



## Weekly Electric Generation Output and Temperatures South Central Region



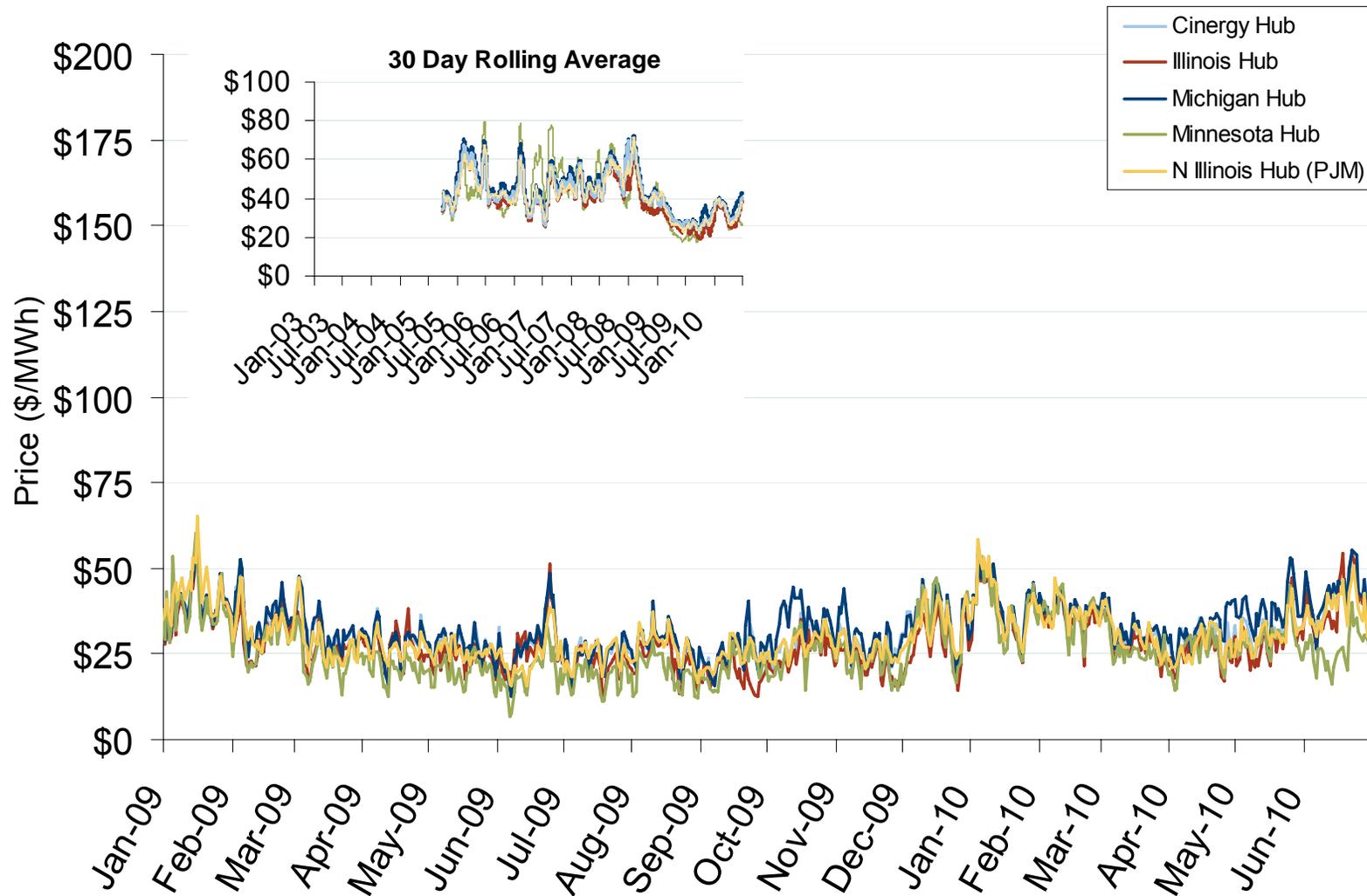
## Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.  
 July 2010 Midwest Snapshot Report

Updated July 9, 2010

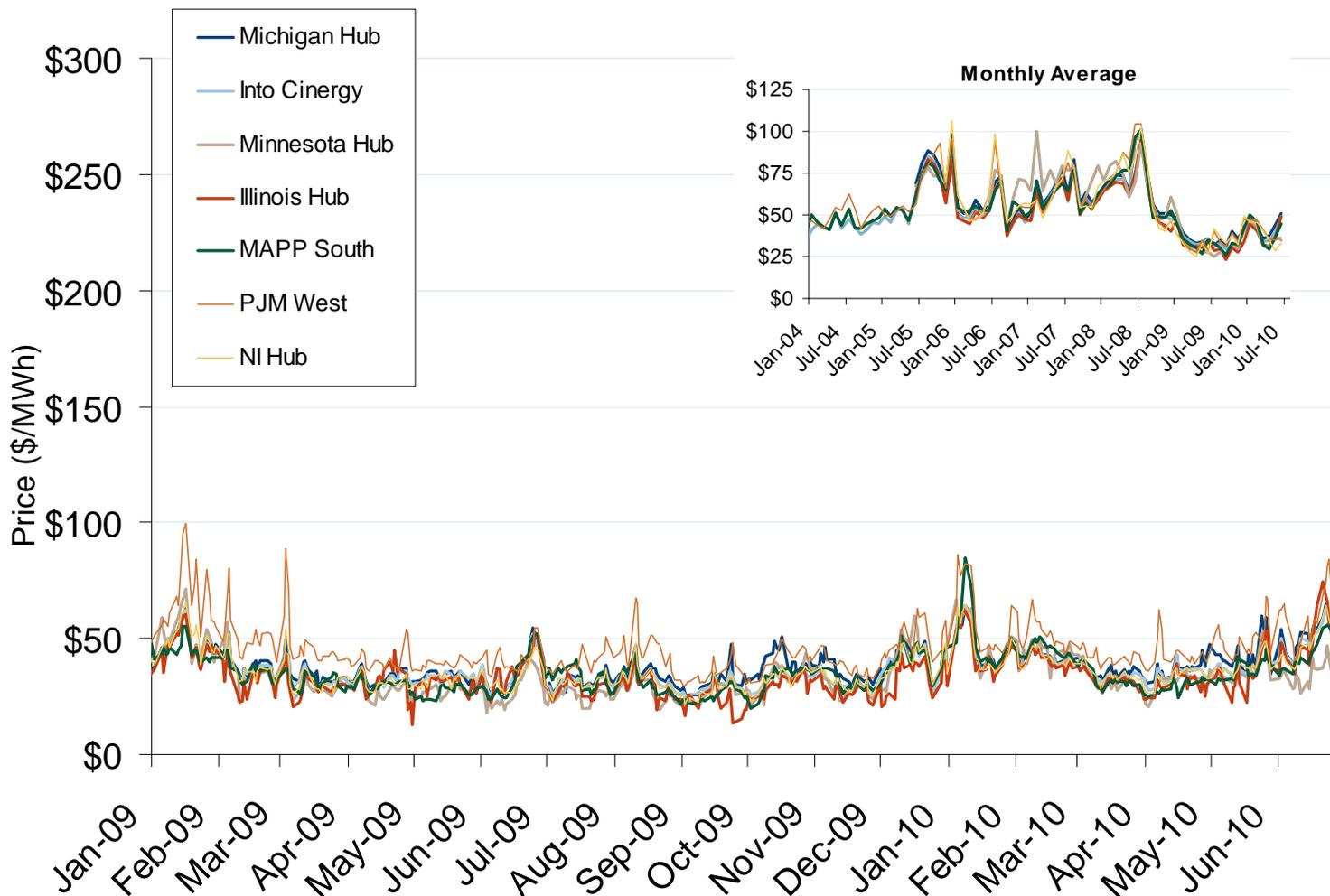
## Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.

Updated July 9, 2010

## MISO/PJM Bilateral Day-Ahead On-Peak Prices

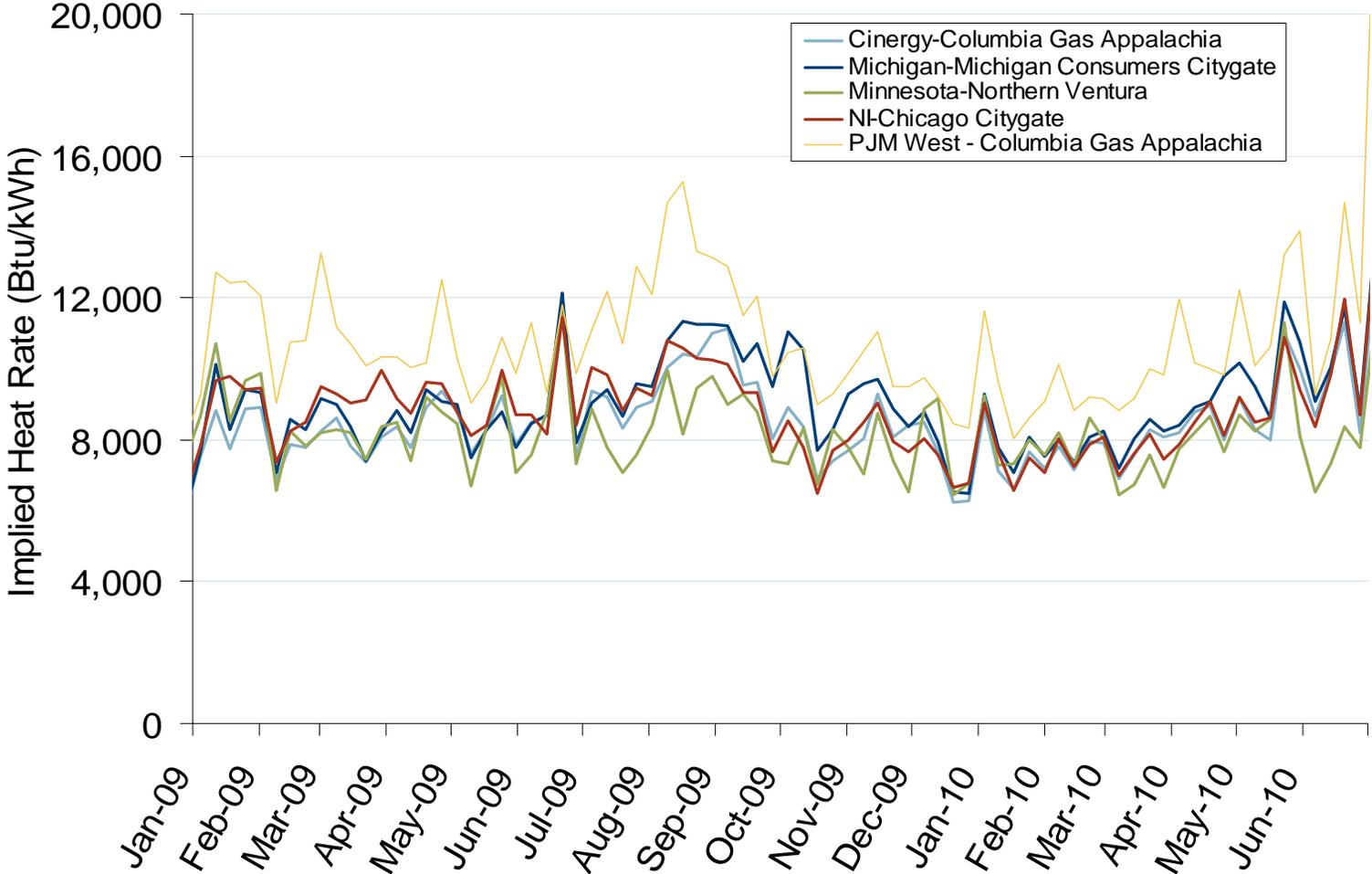


Source: Derived from *Platts* data.

July 2010 Midwest Snapshot Report

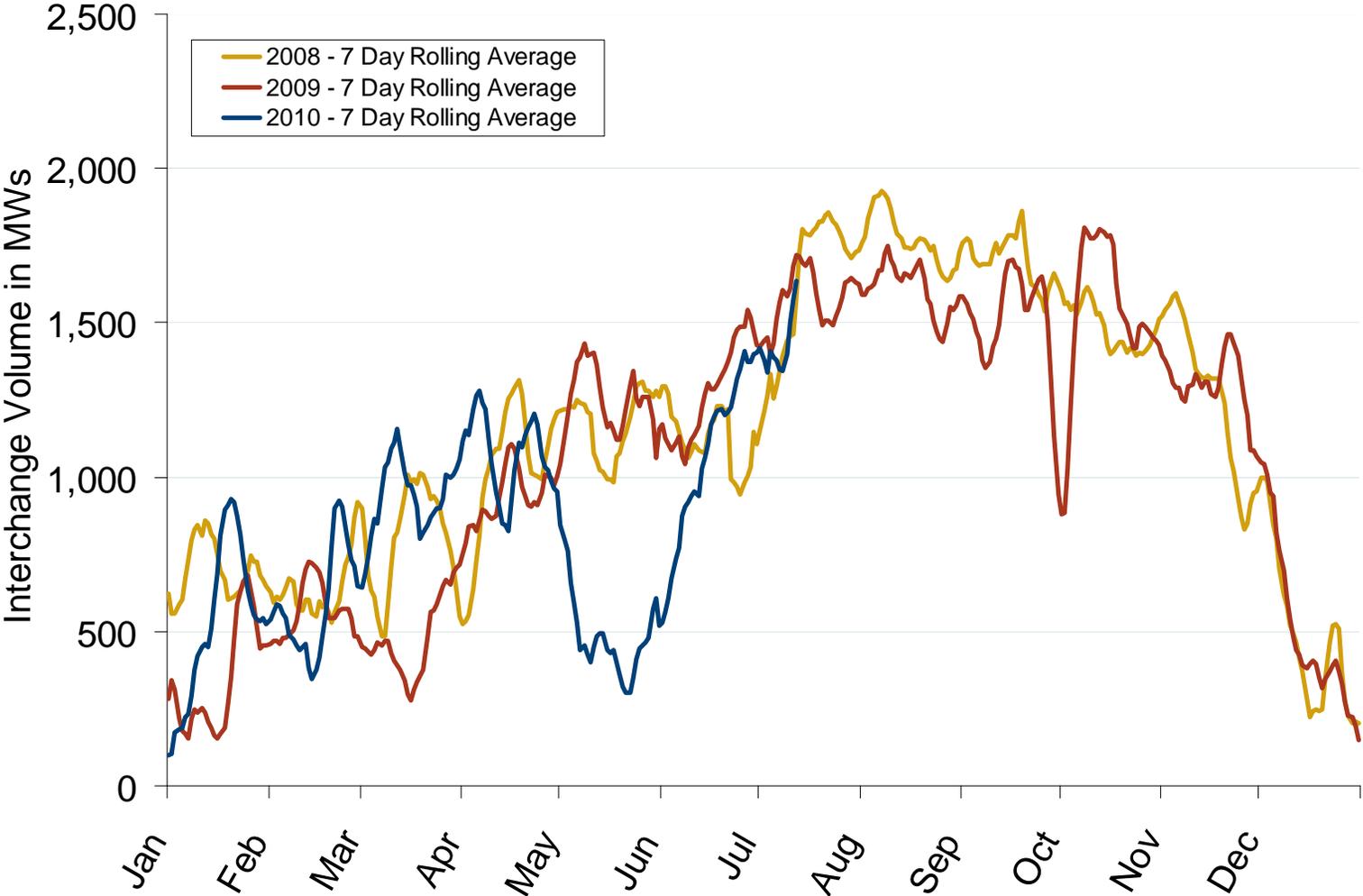
Updated July 9, 2010

# Implied Heat Rates at MISO and PJM Hubs Weekly Averages



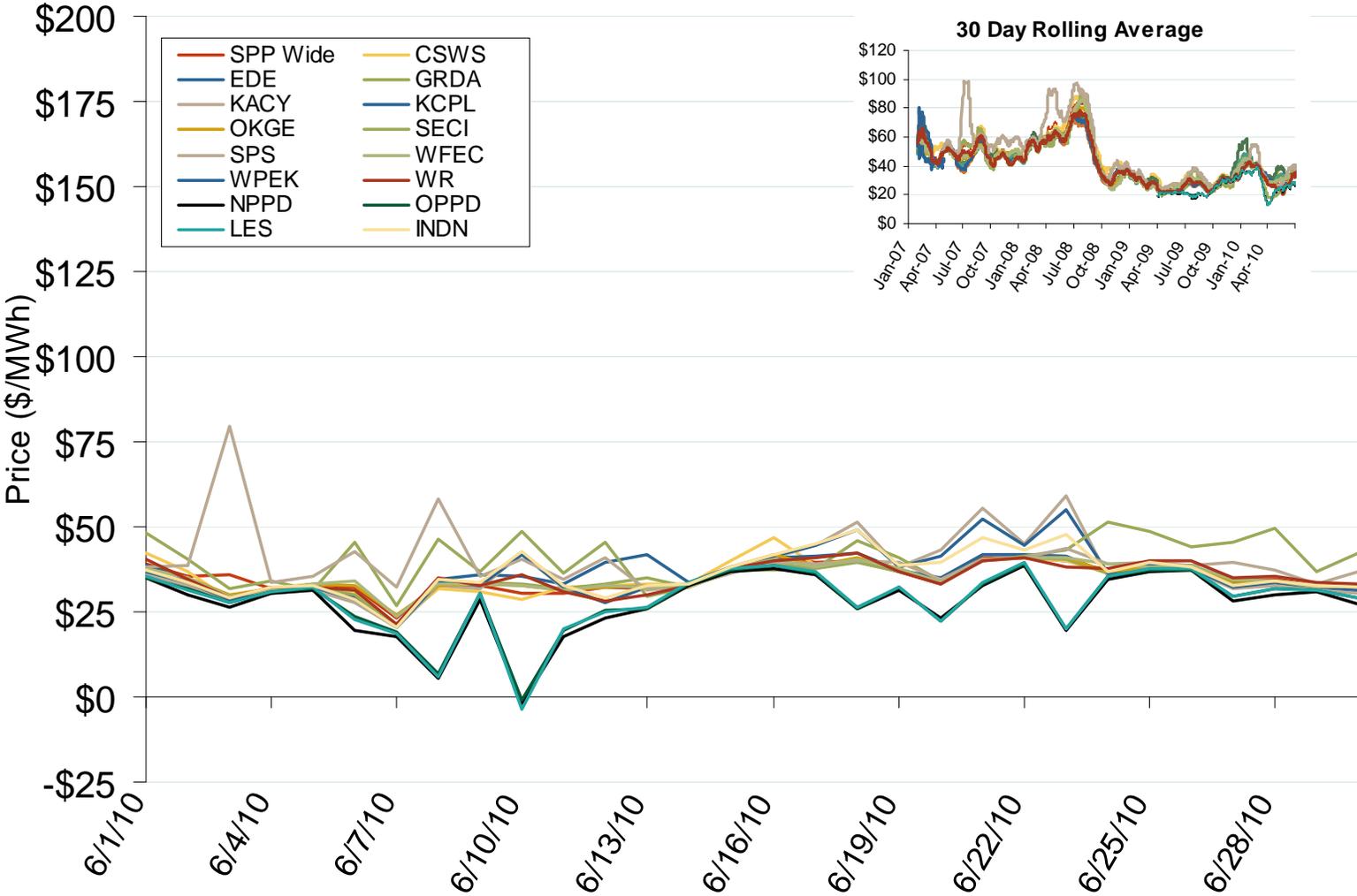
Source: Derived from *Platts* on-peak electric and natural gas price data.  
July 2010 Midwest Snapshot Report

## Imports into MISO from Manitoba Hydro 2008 - 2010



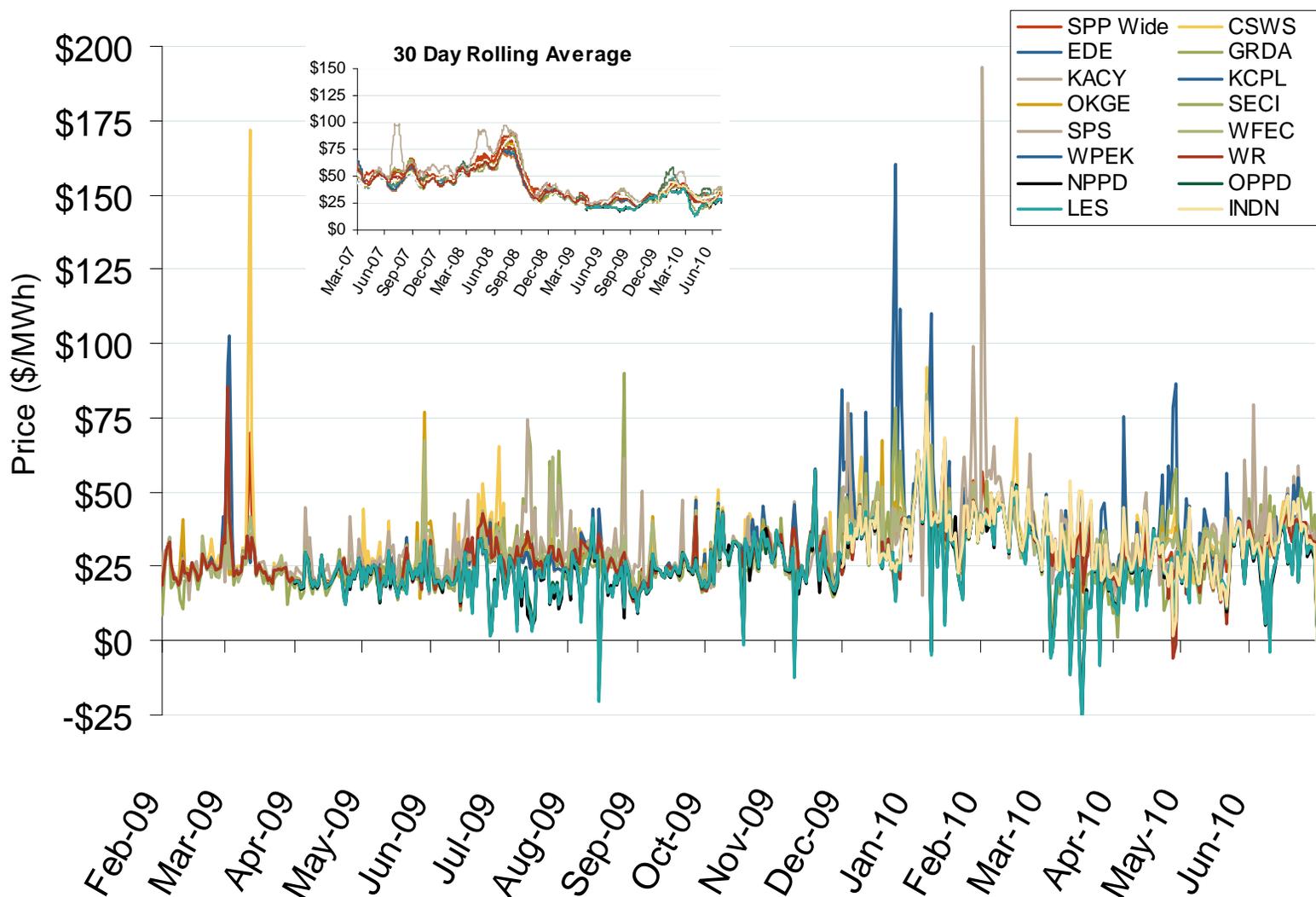
Source: Derived from MISO data.  
July 2010 Midwest Snapshot Report

# Daily Average of SPP Real Time Prices - All Hours



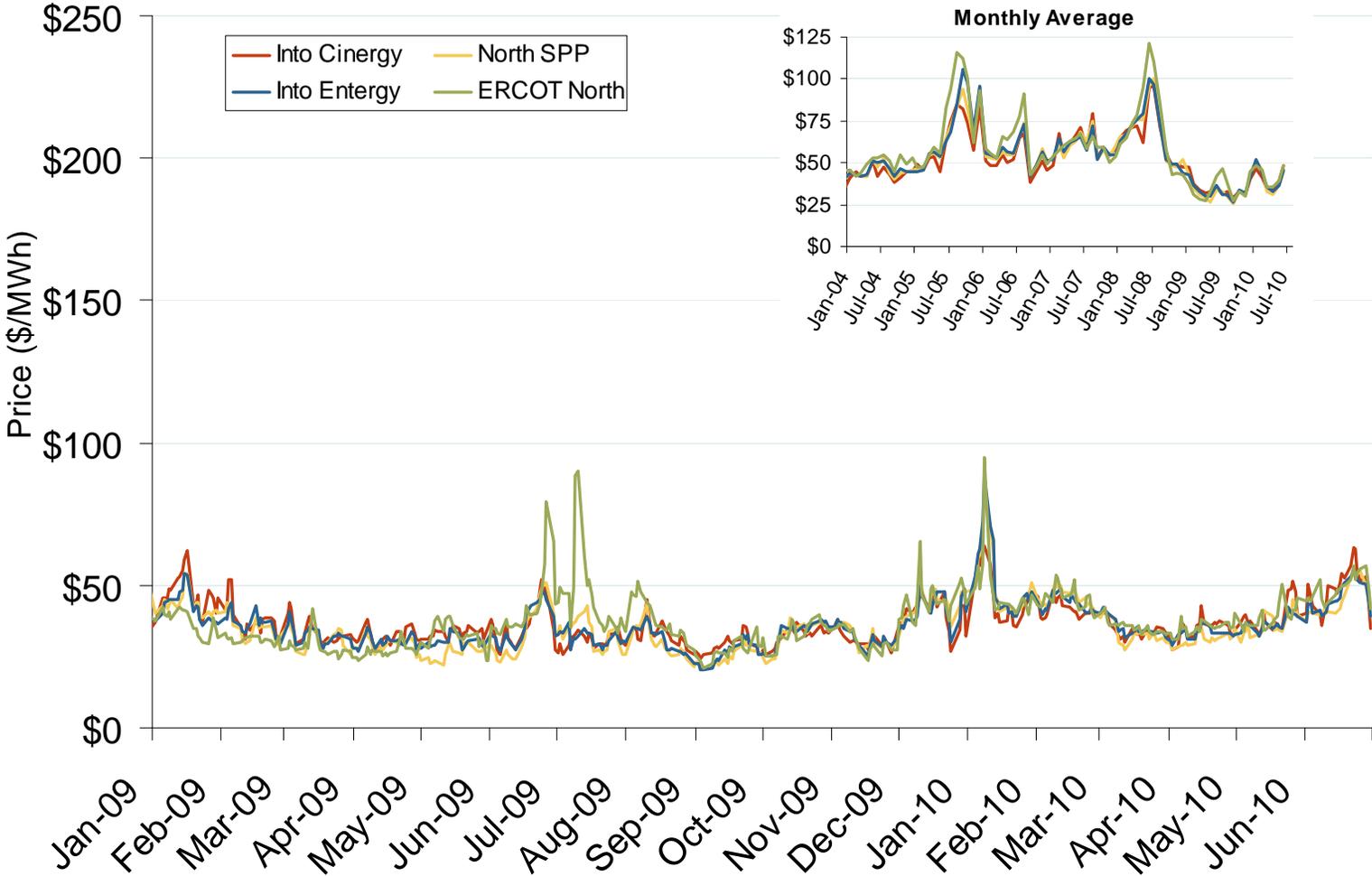
Source: Derived from SPP data.  
July 2010 Midwest Snapshot Report

## Daily Average of SPP Real Time Prices - All Hours



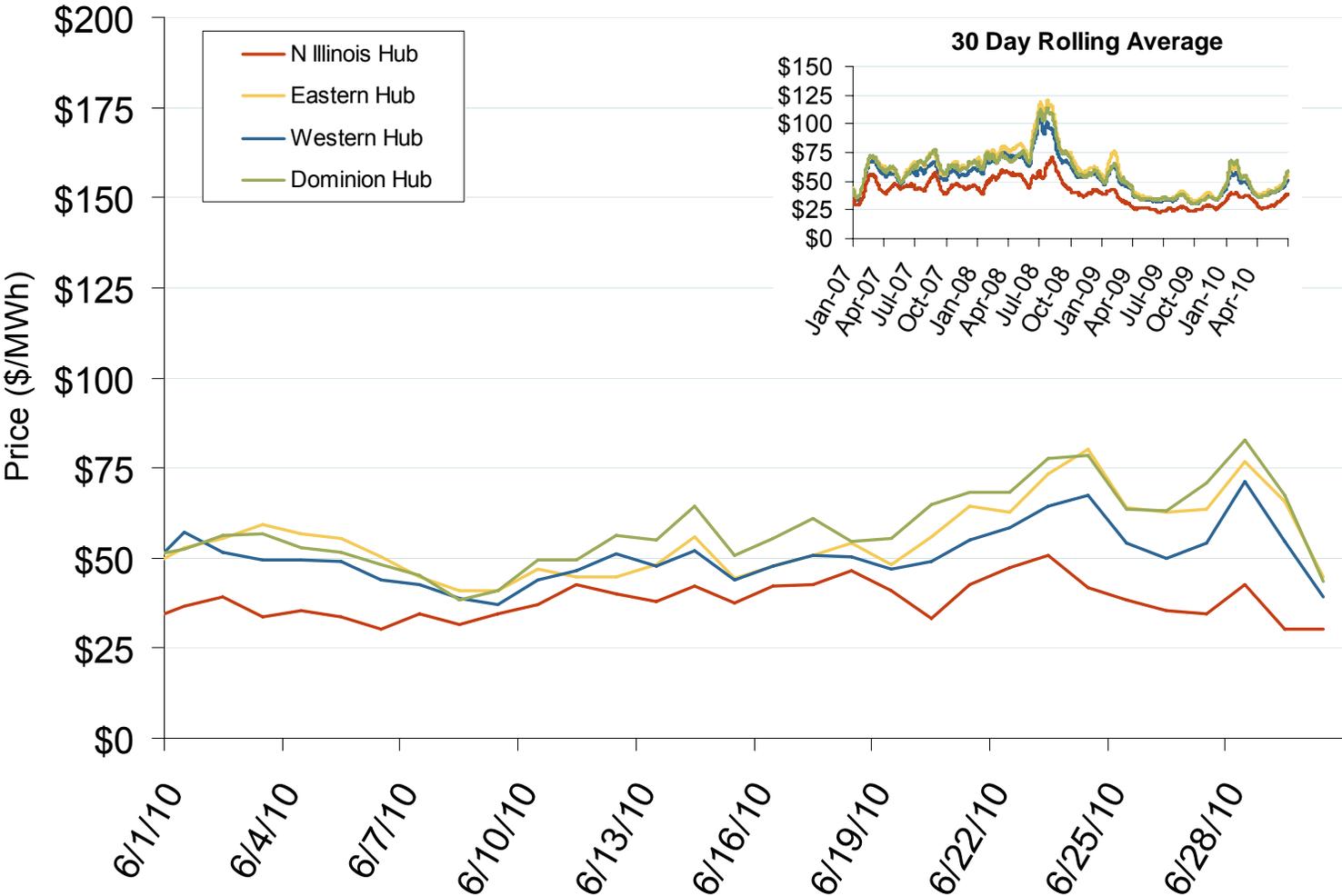
Source: Derived from SPP data.  
July 2010 Midwest Snapshot Report

# Central Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

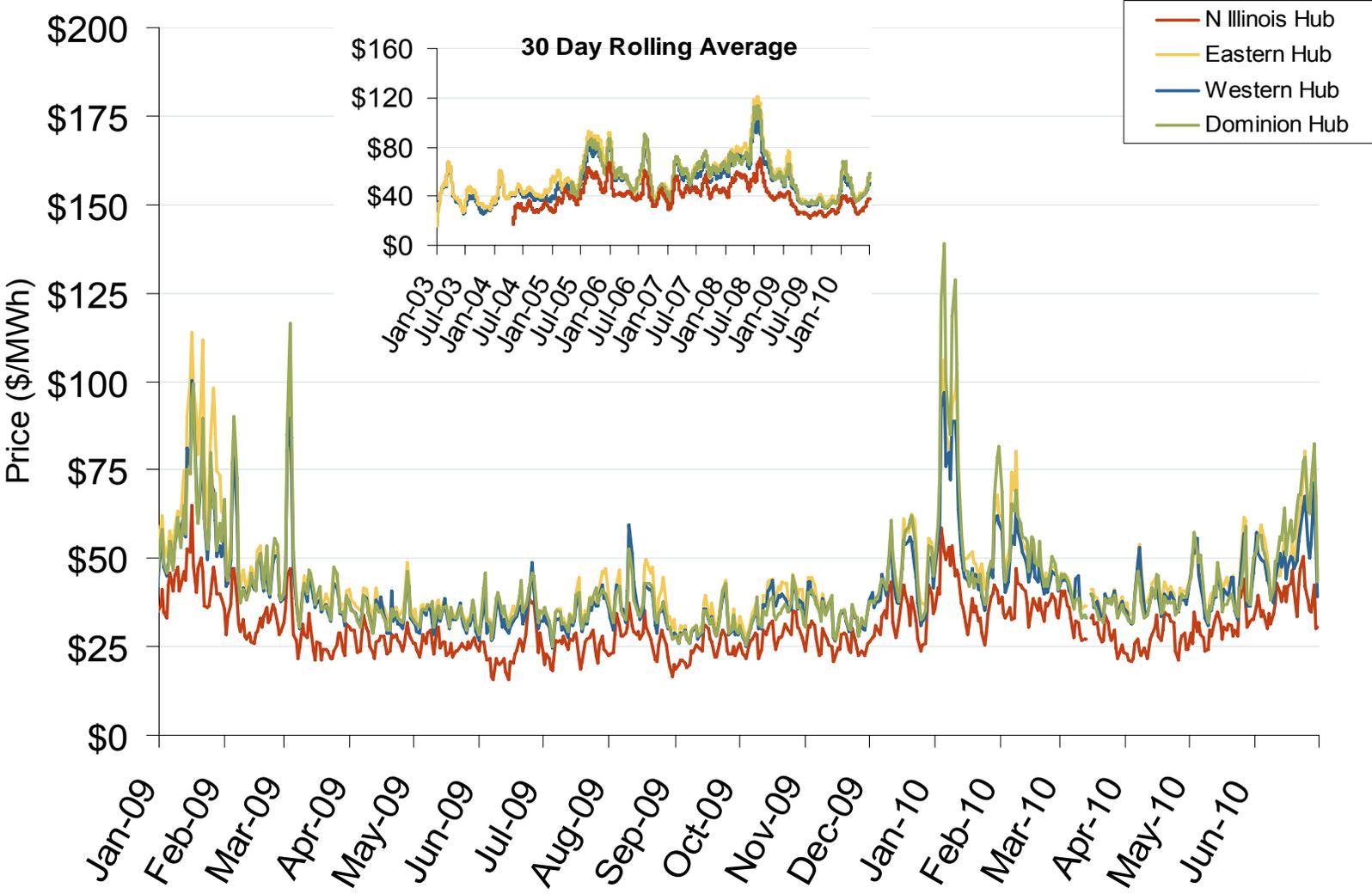
# Daily Average of PJM Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from PJM data as reported by Bloomberg.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

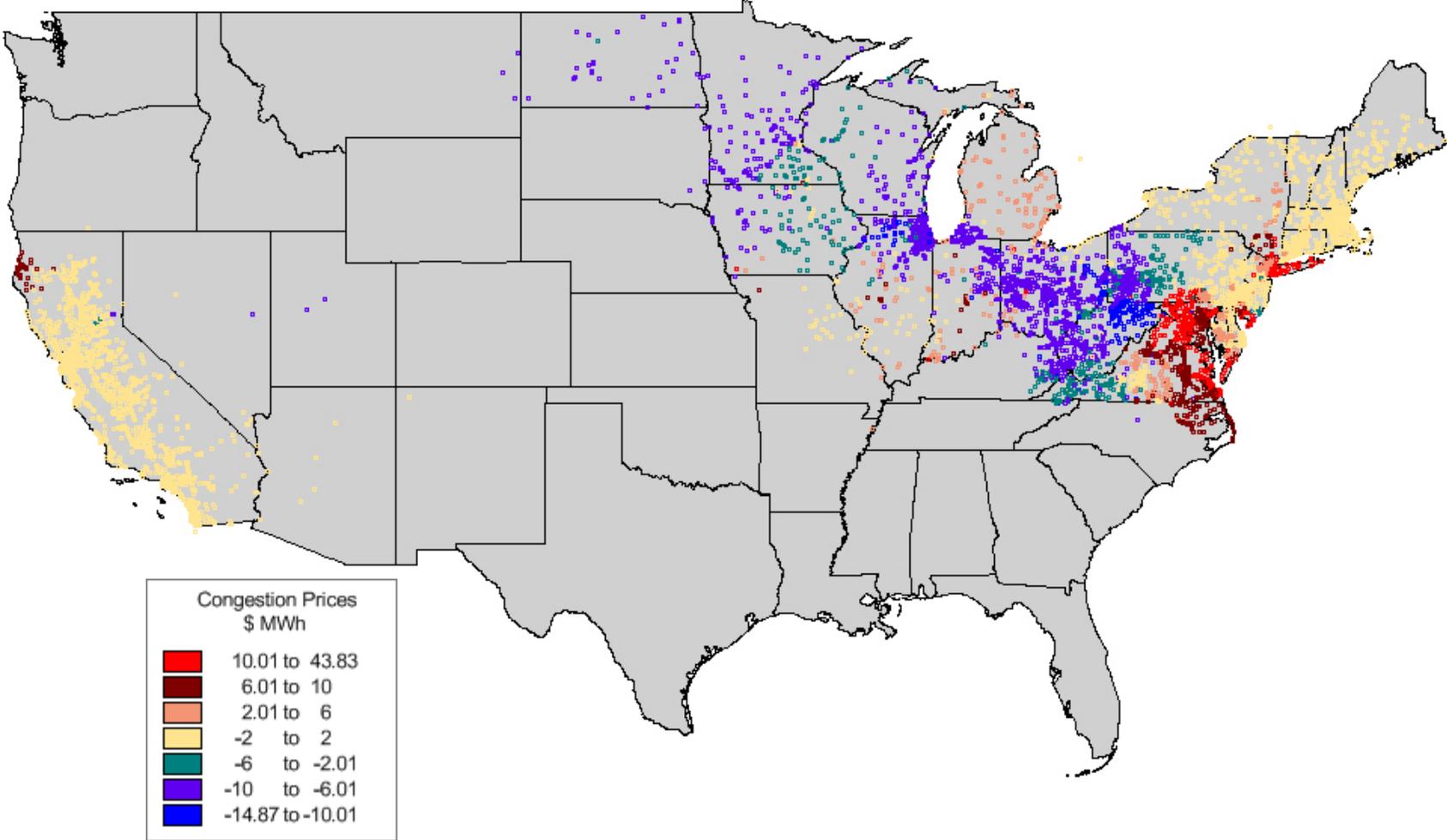
# Daily Average of PJM Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from PJM data as reported by Bloomberg.

Updated July 9, 2010

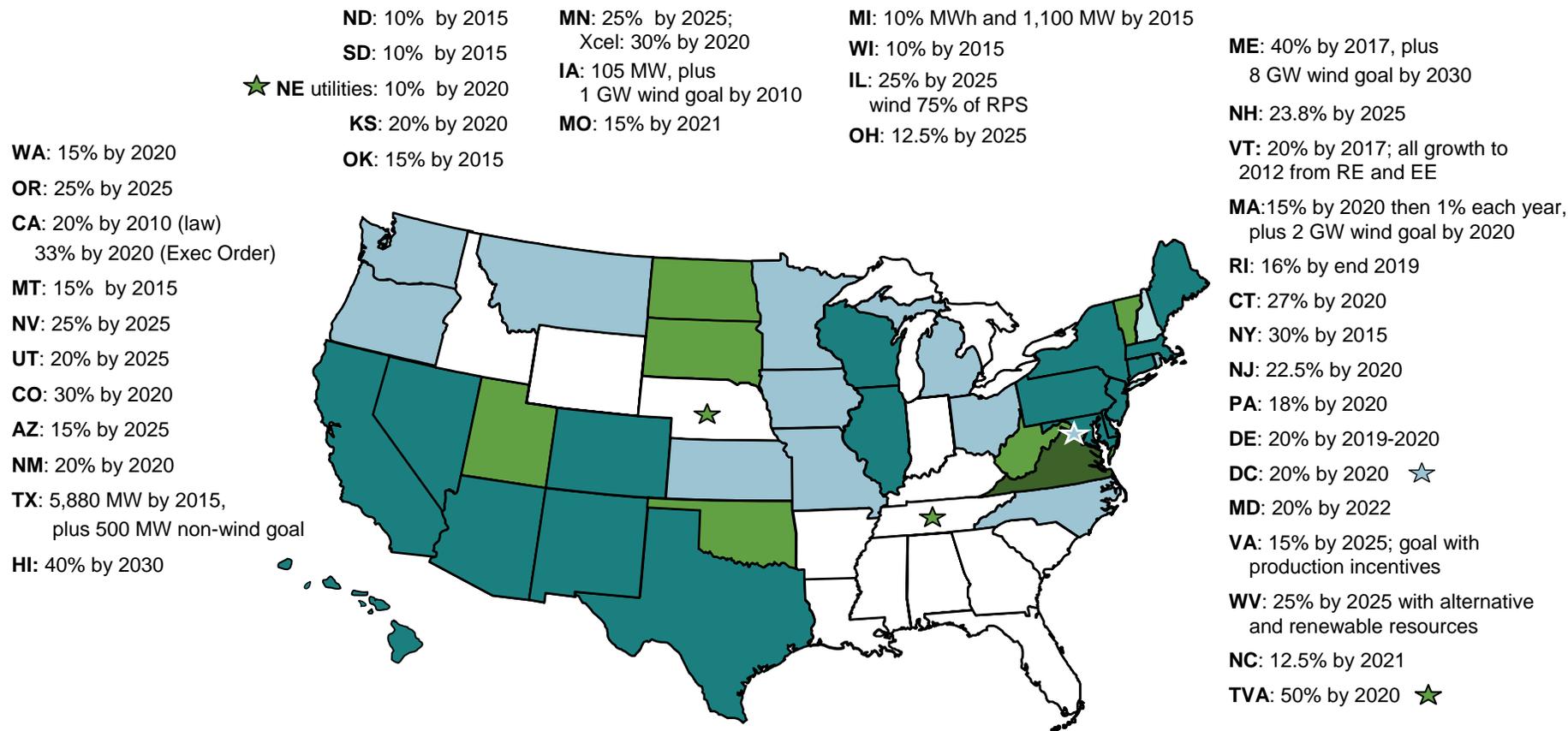
# Day Ahead On-Peak Congestion Average Monthly Prices June 2010



## Renewable Power & 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)



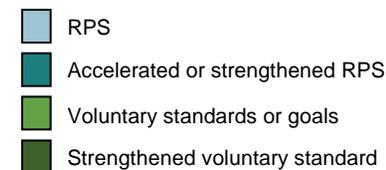
Updates at: <http://www.ferc.gov/market-oversight/othr-mkts/renew.asp>

**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.

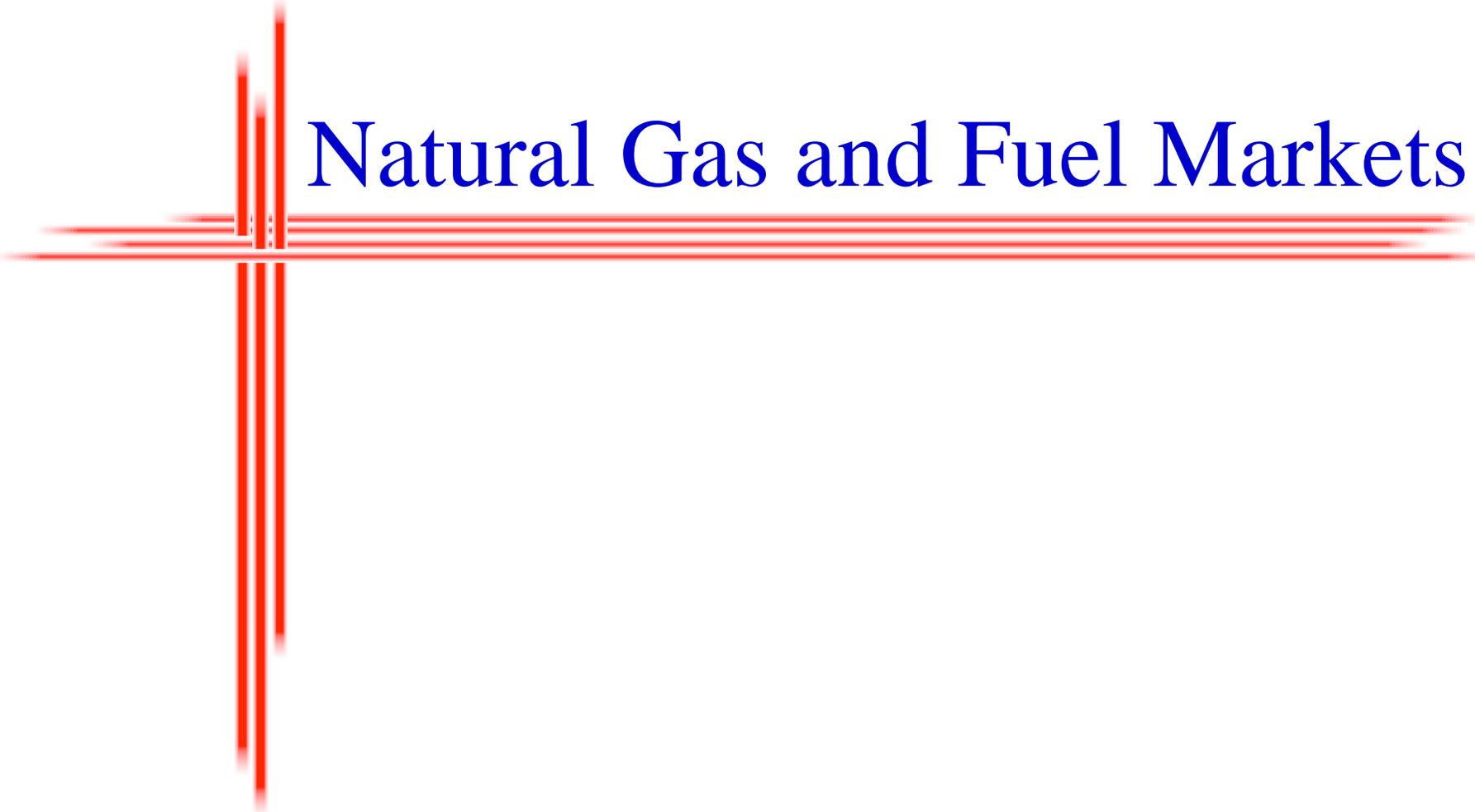
\* Nebraska does not have a state-wide goal, but its two largest public power districts do.

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>

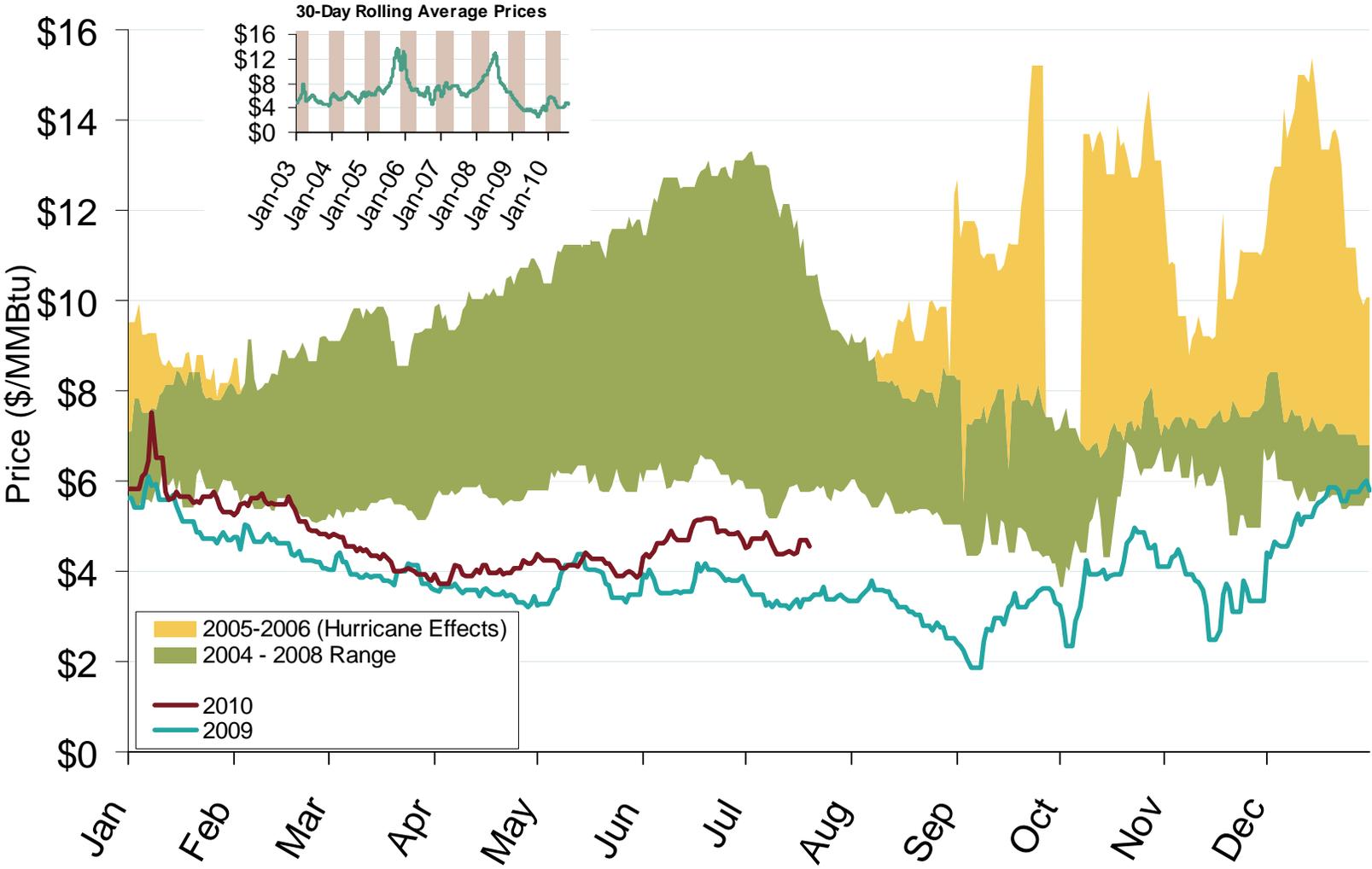


Updated June 29, 2010



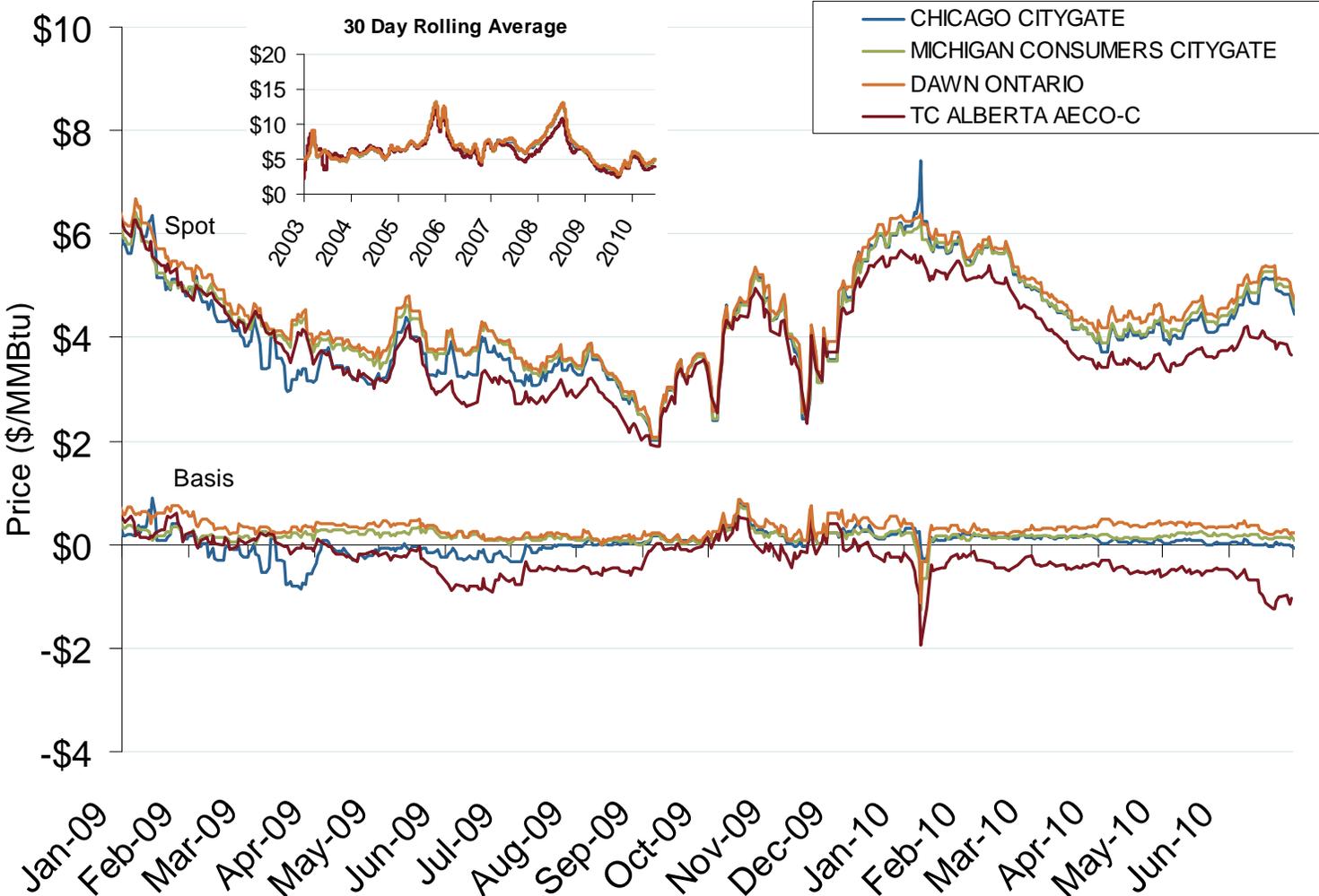
# Natural Gas and Fuel Markets

# Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data.  
July 2010 Midwest Snapshot Report

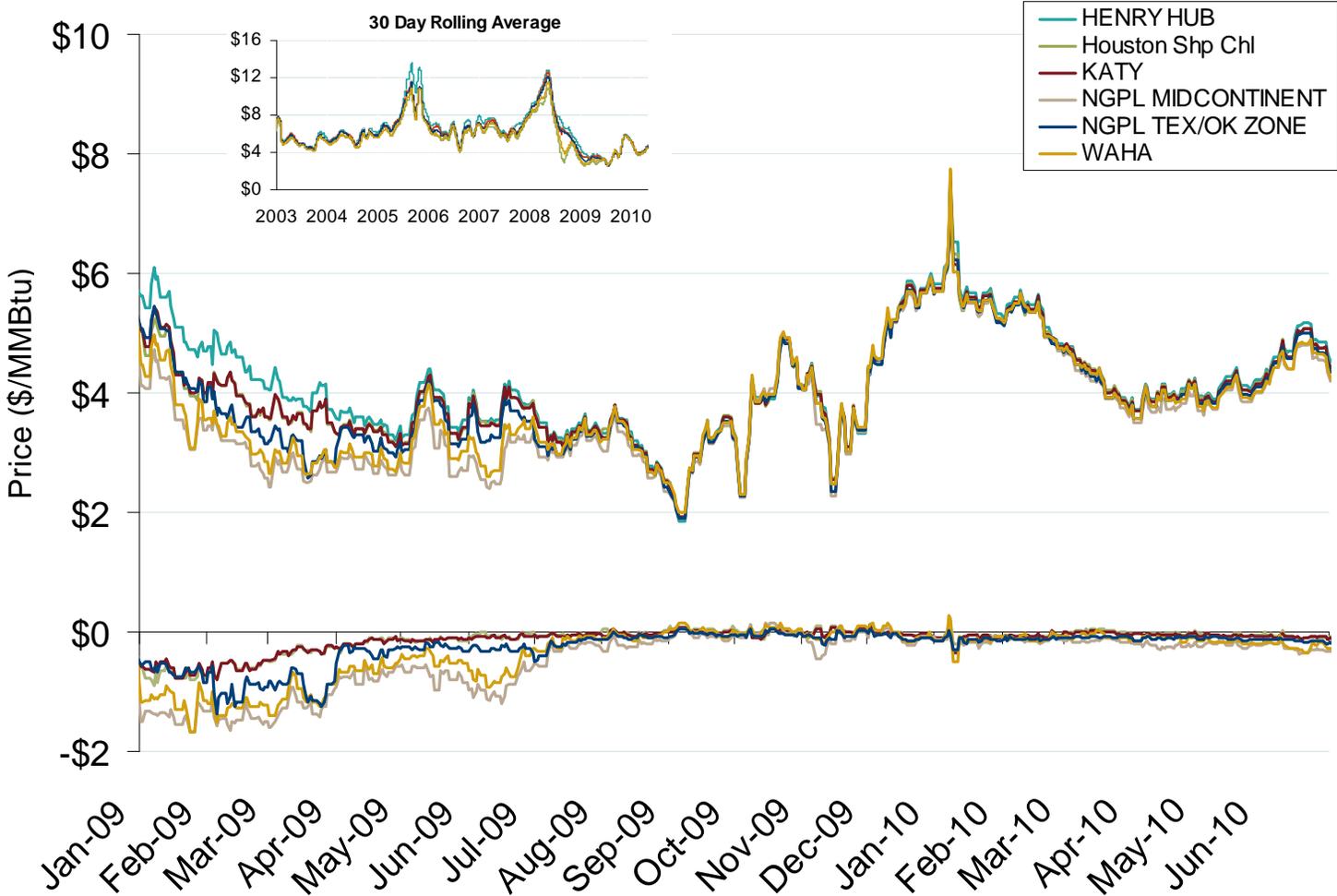
# Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

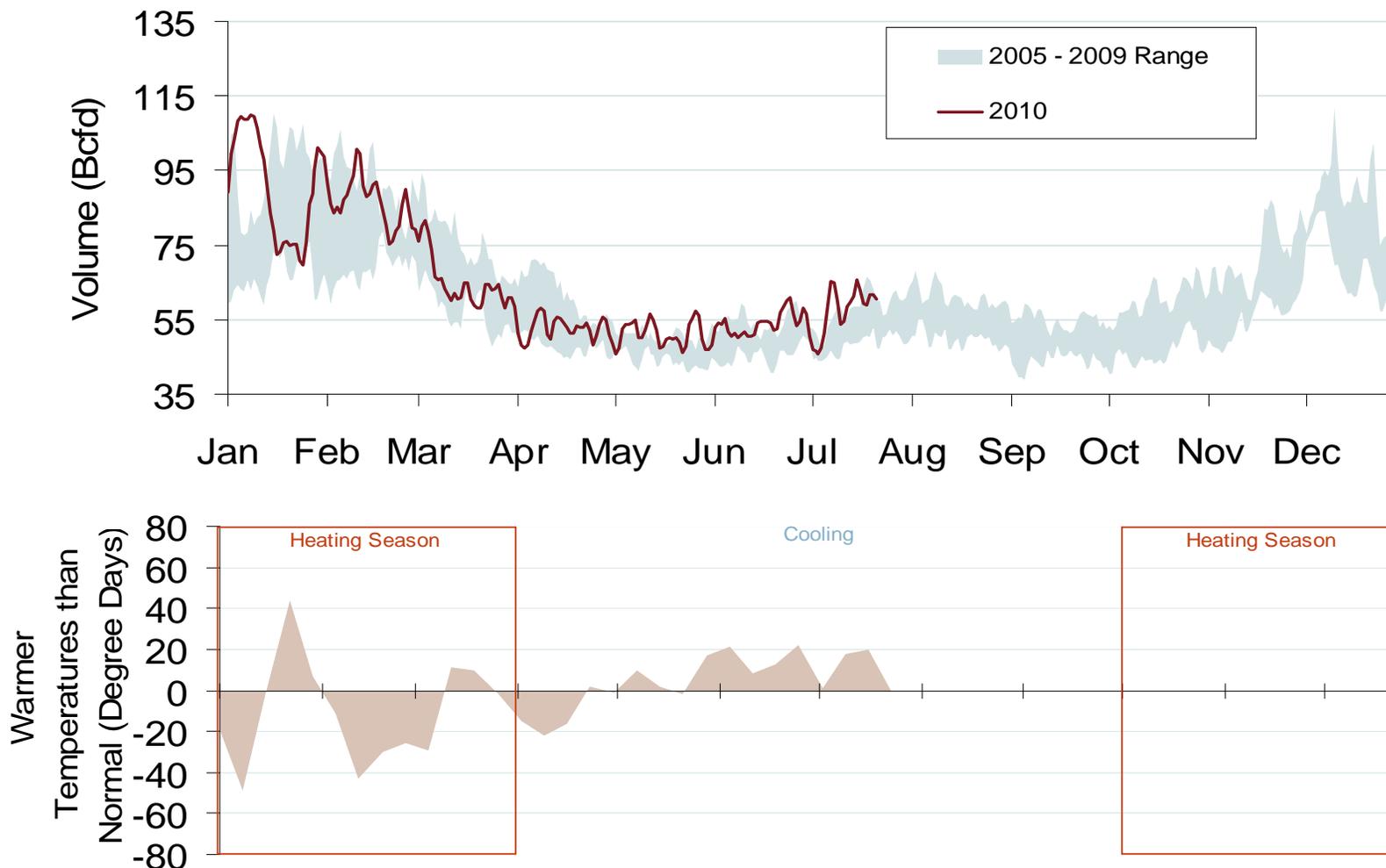
# Gulf Day-Ahead Hub Spot Prices and Basis



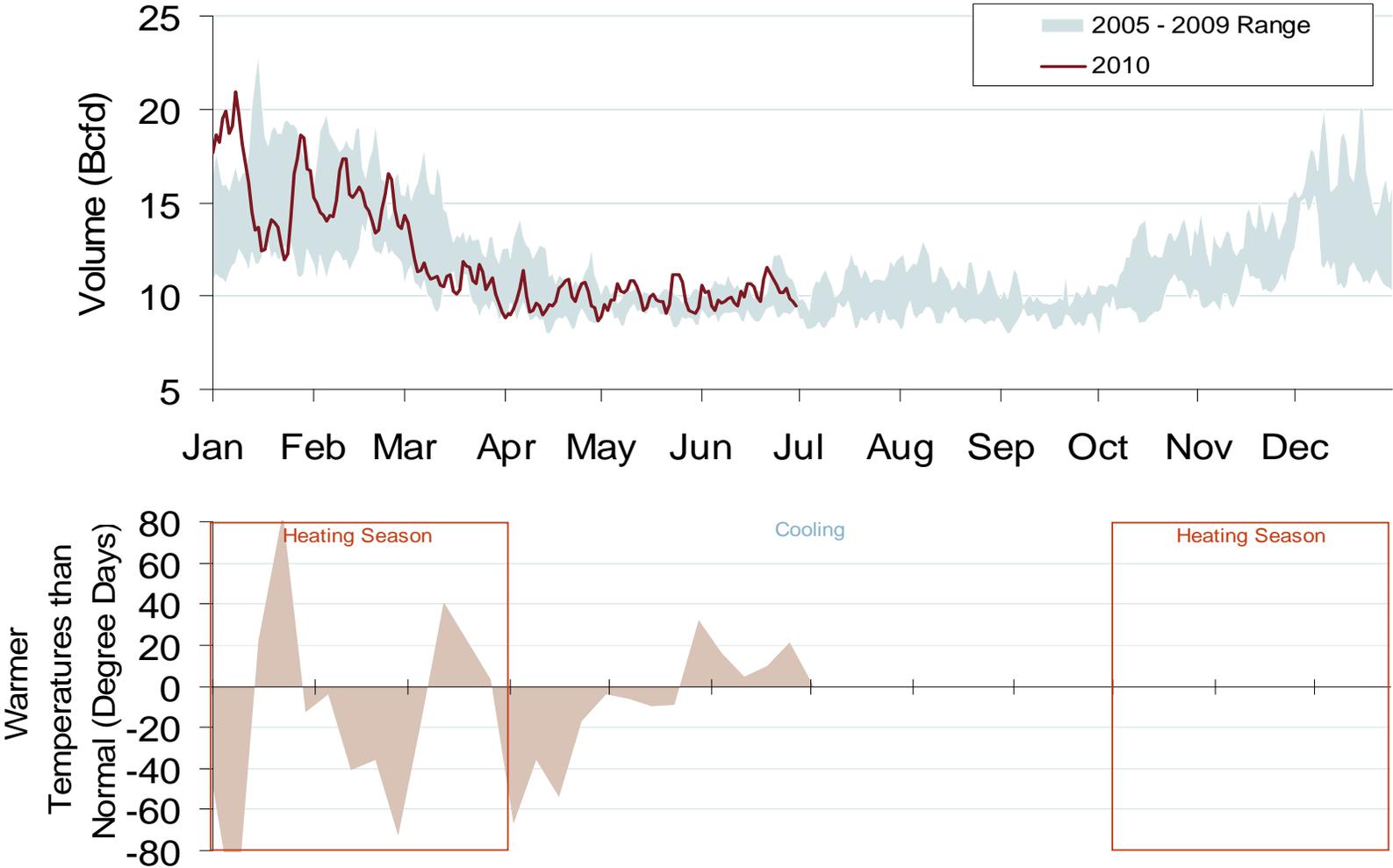
Source: Derived from *Platts* data.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

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



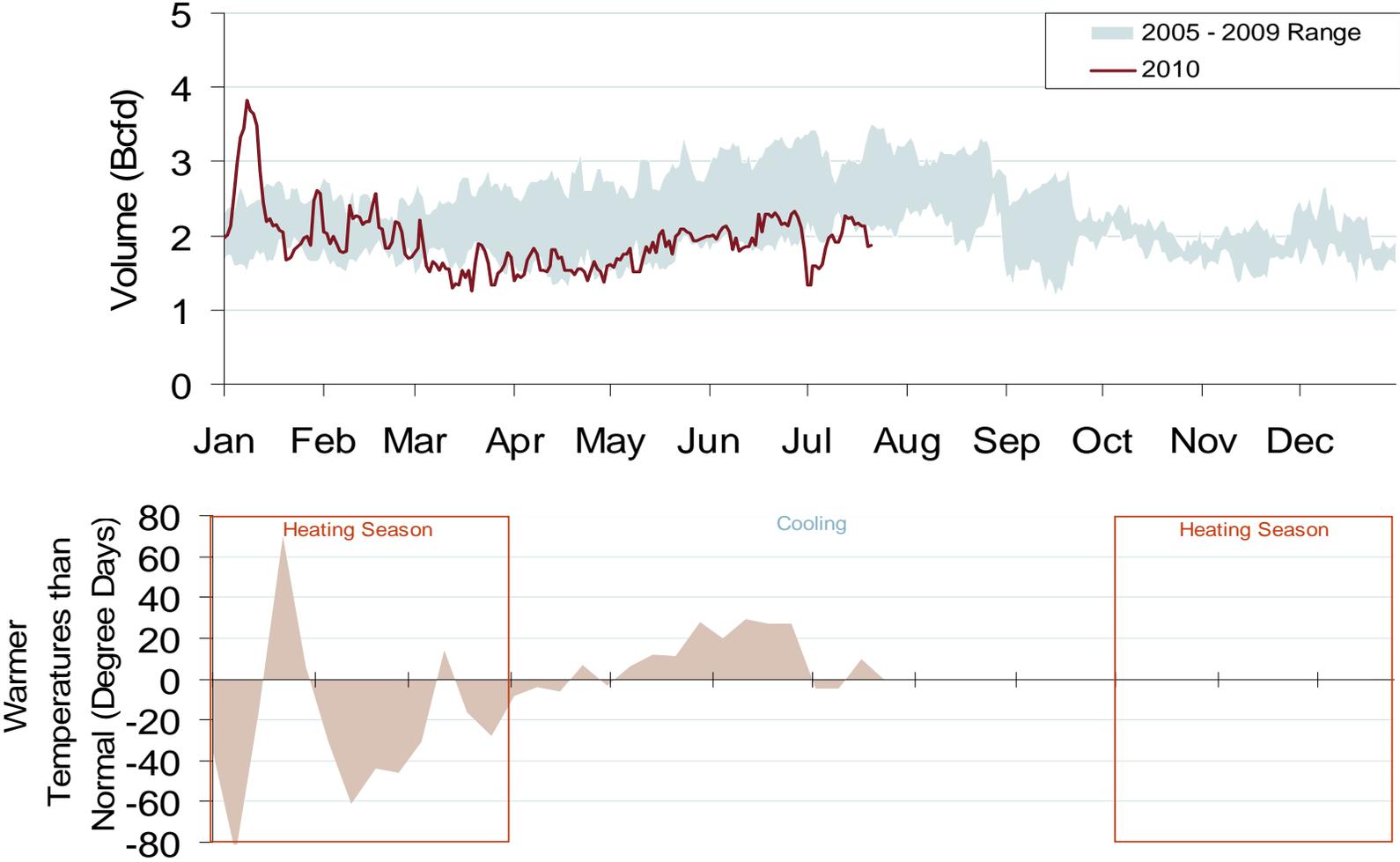
# Daily Midwest Natural Gas Demand All Sectors



Source: Derived from Bentek Energy and Weekly NOAA data.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

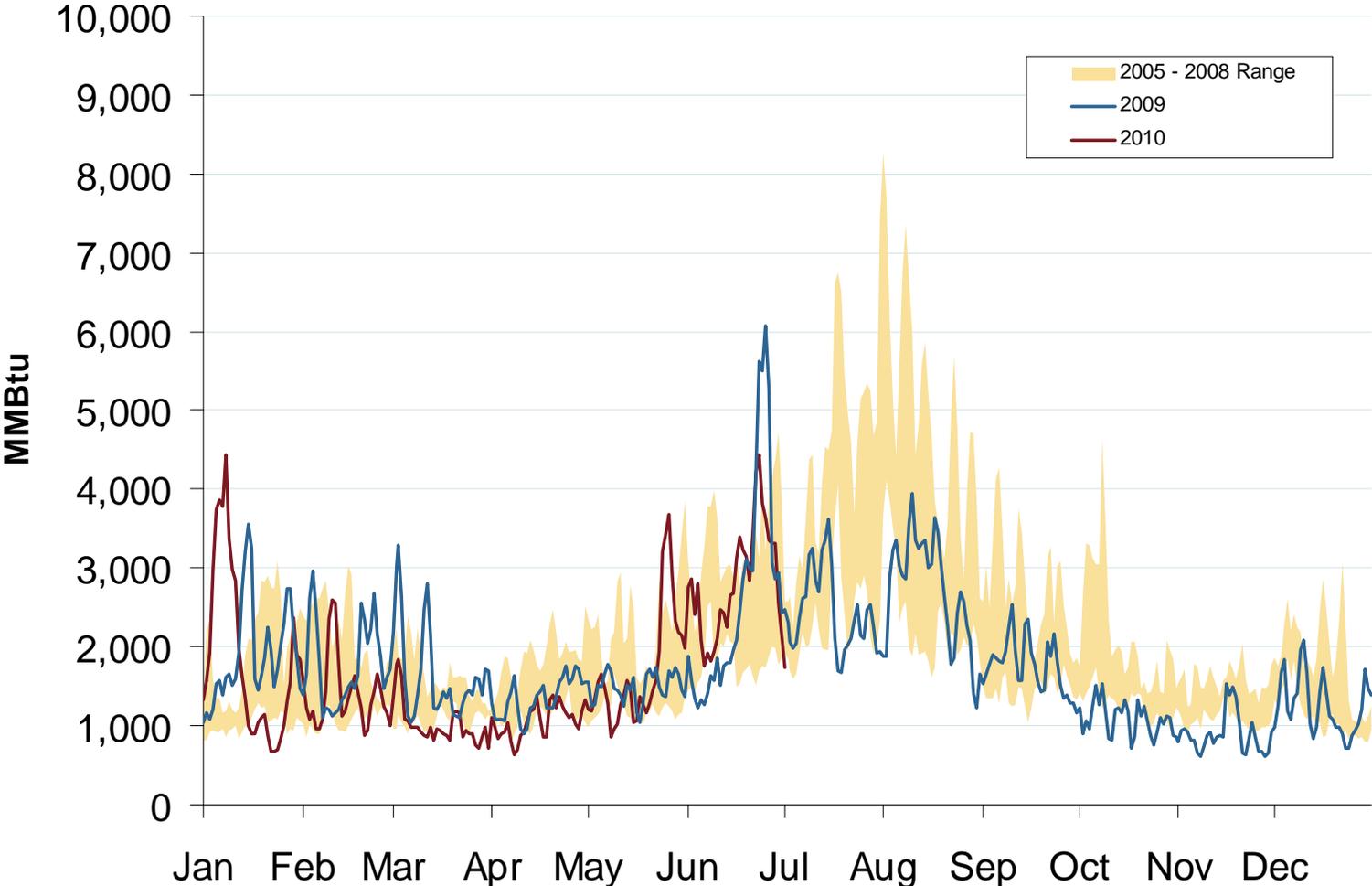
# Daily Gulf Natural Gas Demand All Sectors



Source: Derived from Bentek Energy and Weekly NOAA data.  
July 2010 Midwest Snapshot Report

Updated July 21, 2010

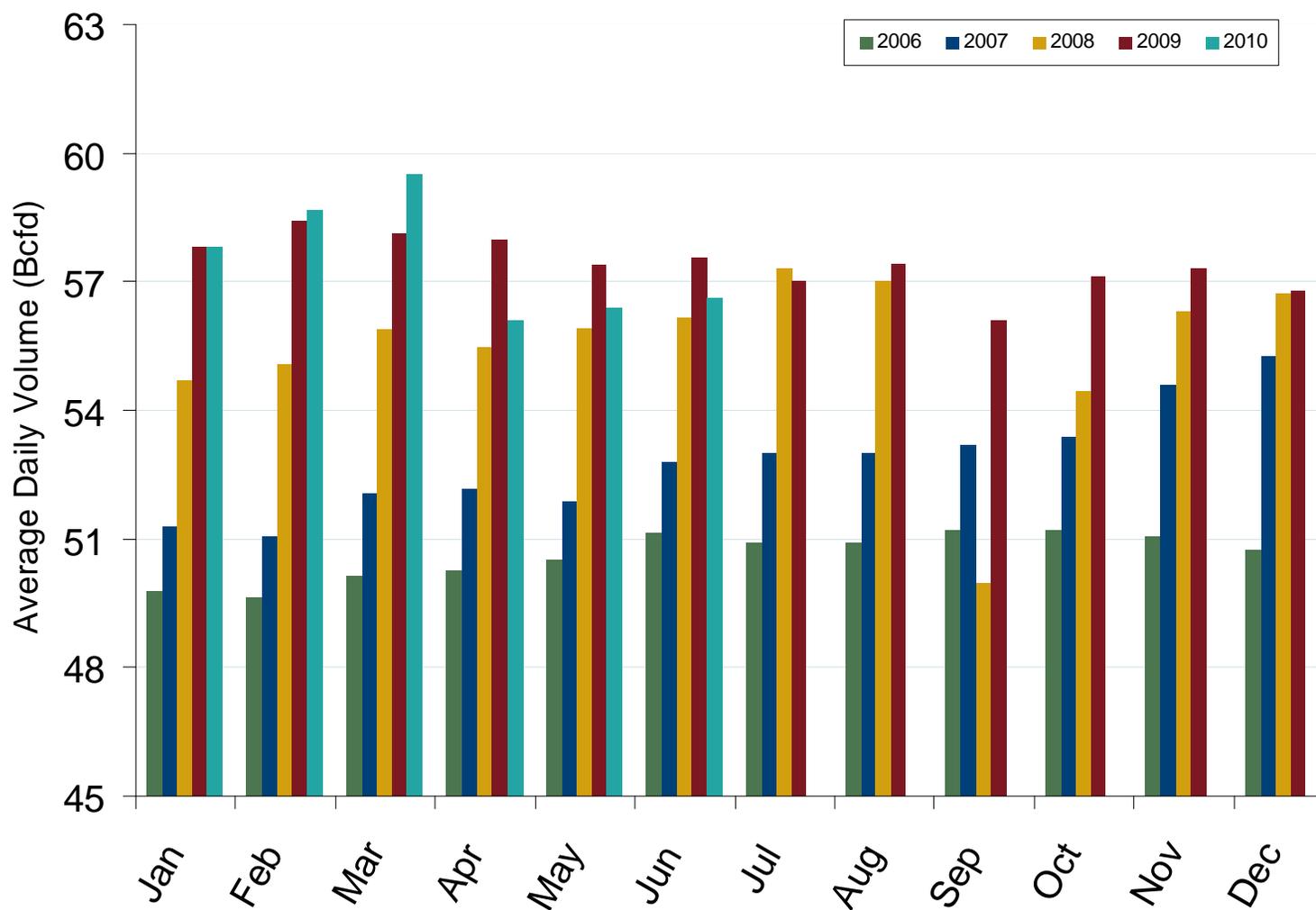
# Midwest Natural Gas Consumption for Power Generation



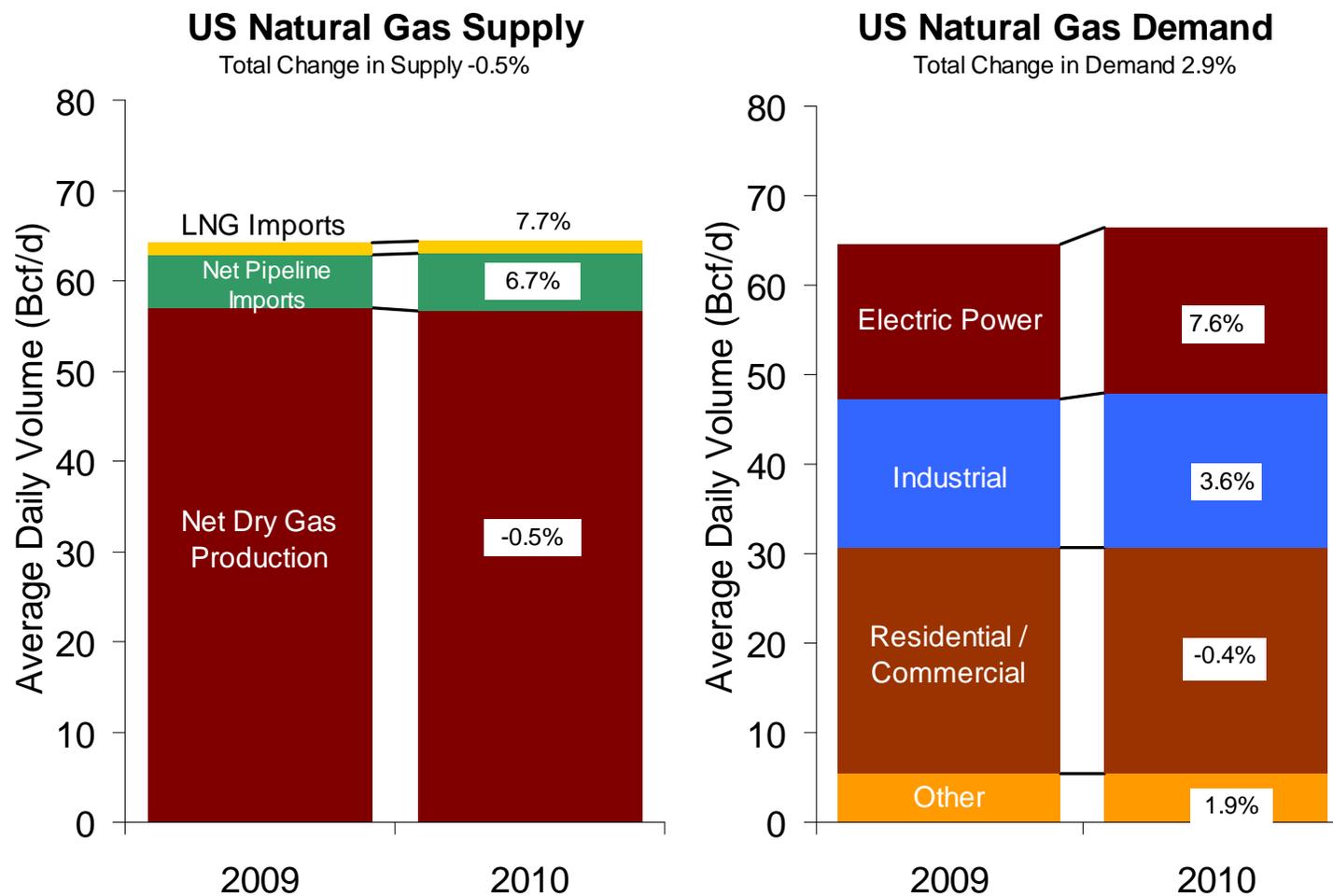
Source: Derived from Bentek Data  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

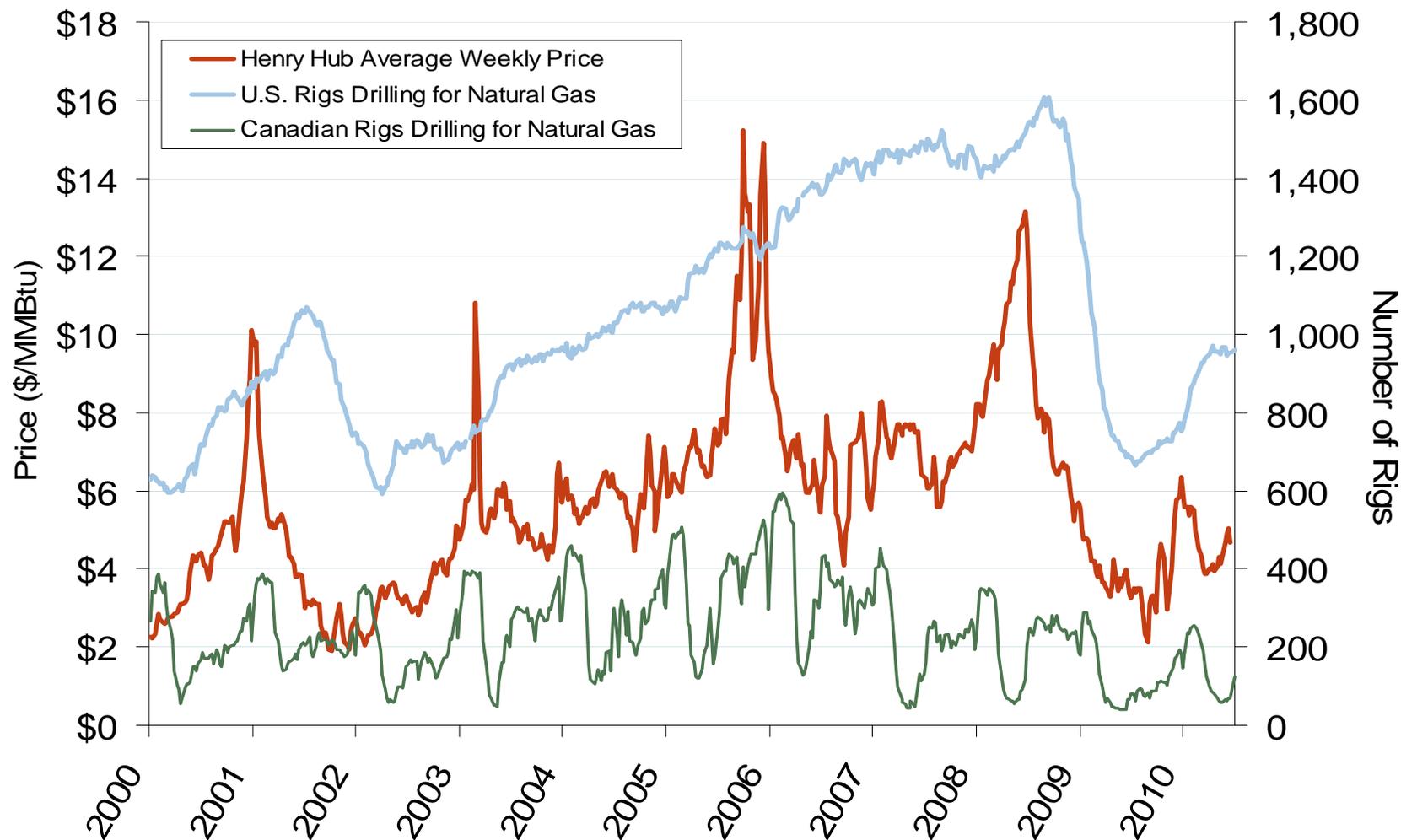
## U.S. Dry Gas Production



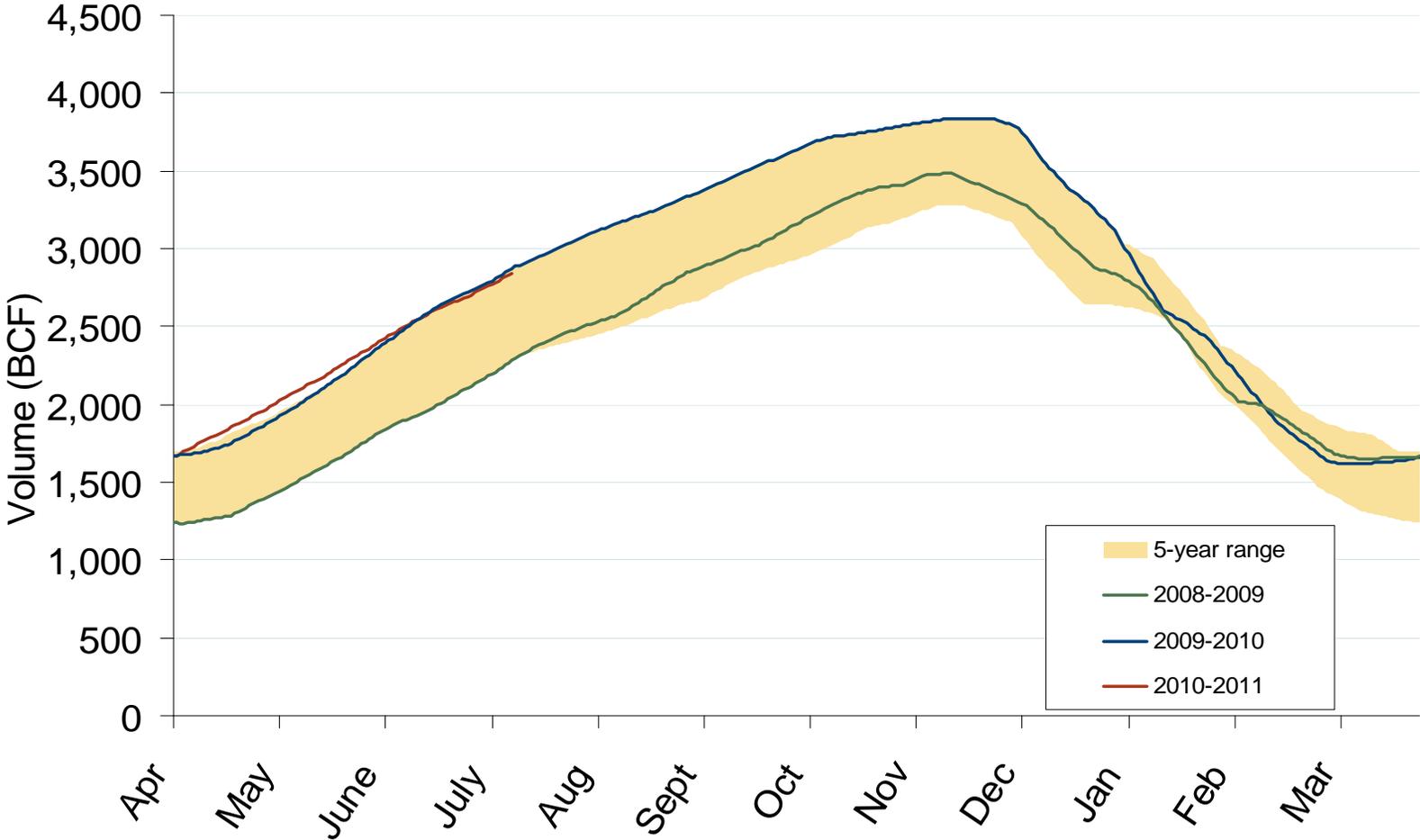
## U.S. Natural Gas Supply and Demand 2009 vs. 2010: January - June



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



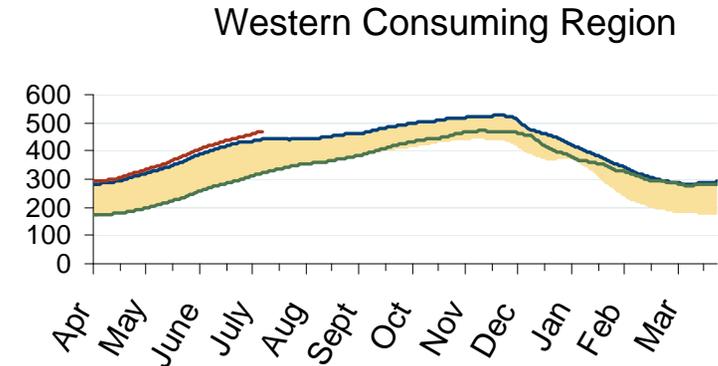
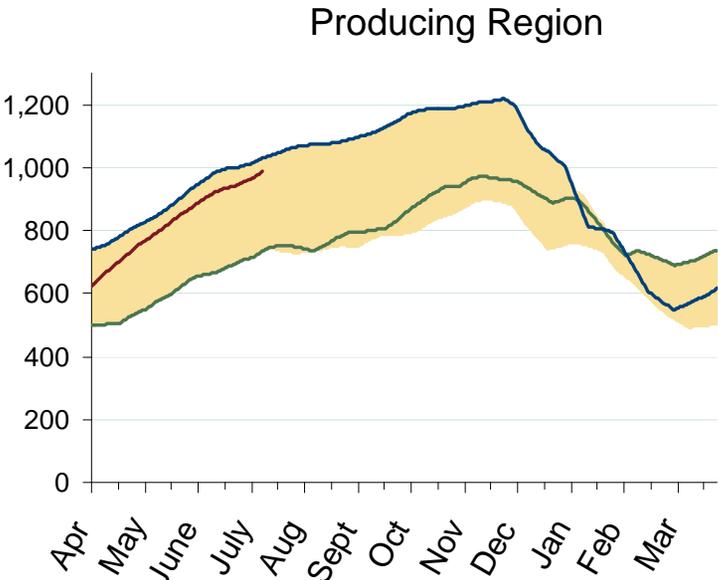
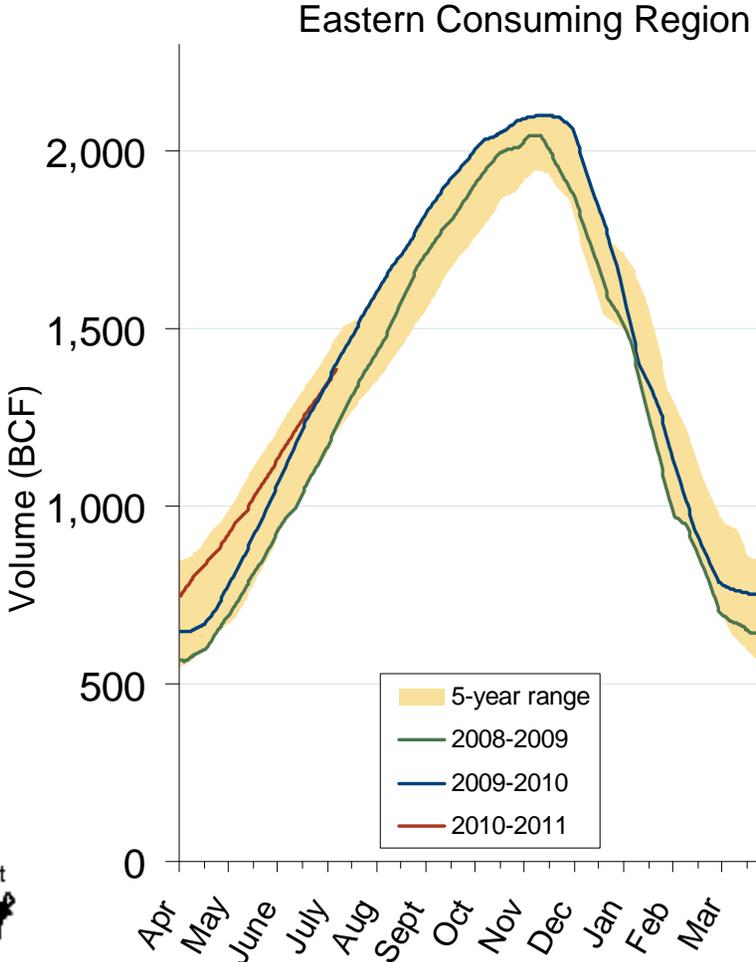
# Total U.S. Working Gas in Storage



Source: Derived from EIA data.  
July 2010 Midwest Snapshot Report

Updated July 15, 2010

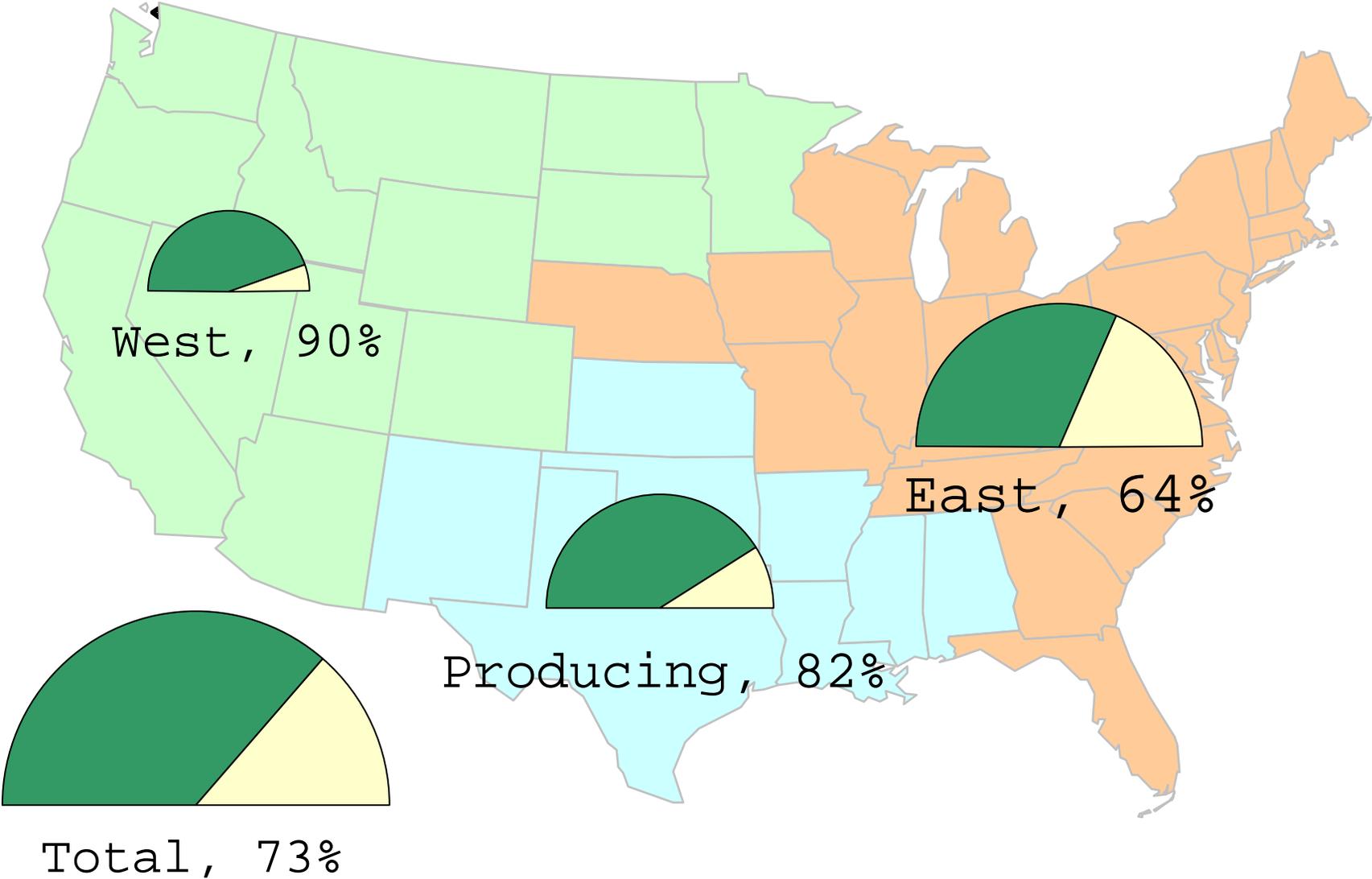
# Regional Totals of Working Gas in Storage



Source: Derived from EIA data.  
July 2010 Midwest Snapshot Report

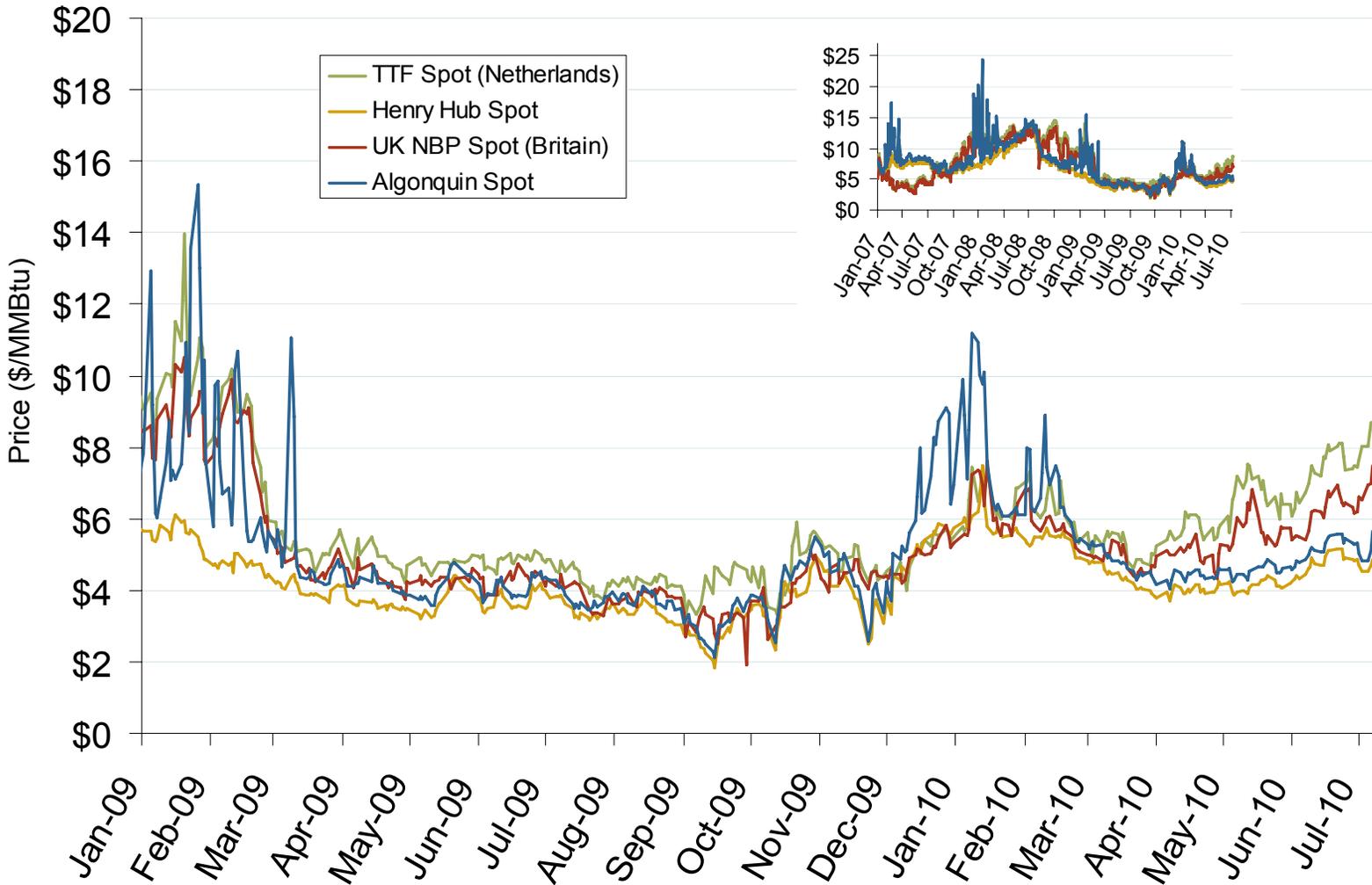
Updated July 15, 2010

# 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  
July 2010 Midwest Snapshot Report

# Atlantic Basin European and US Spot Natural Gas Prices



Source: Derived from *Bloomberg* and *ICE* data.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

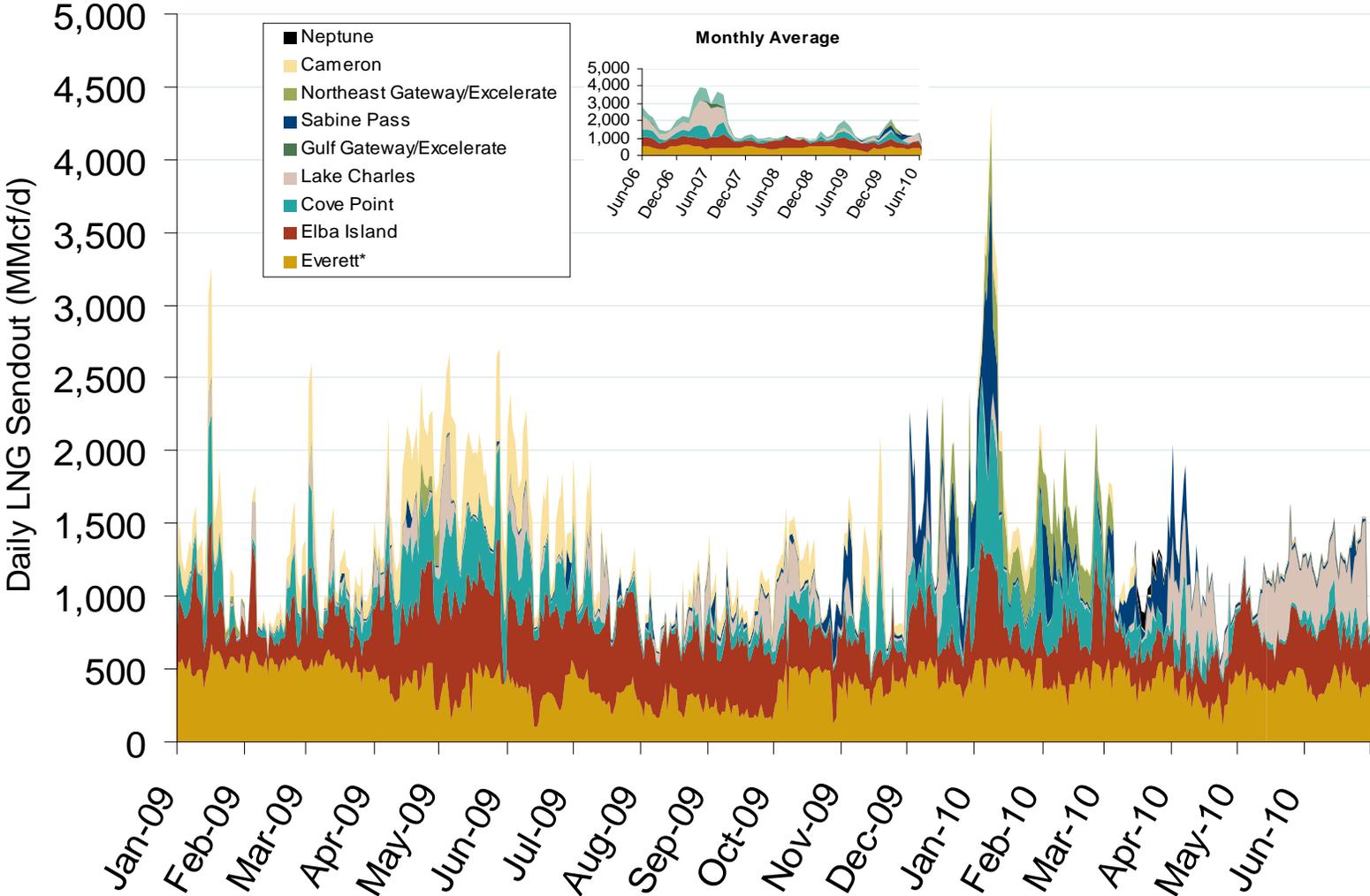
# World LNG Estimated July 2010 Landed Prices



Source: Waterborne Energy, Inc. Data in \$US/MMBtu.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

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

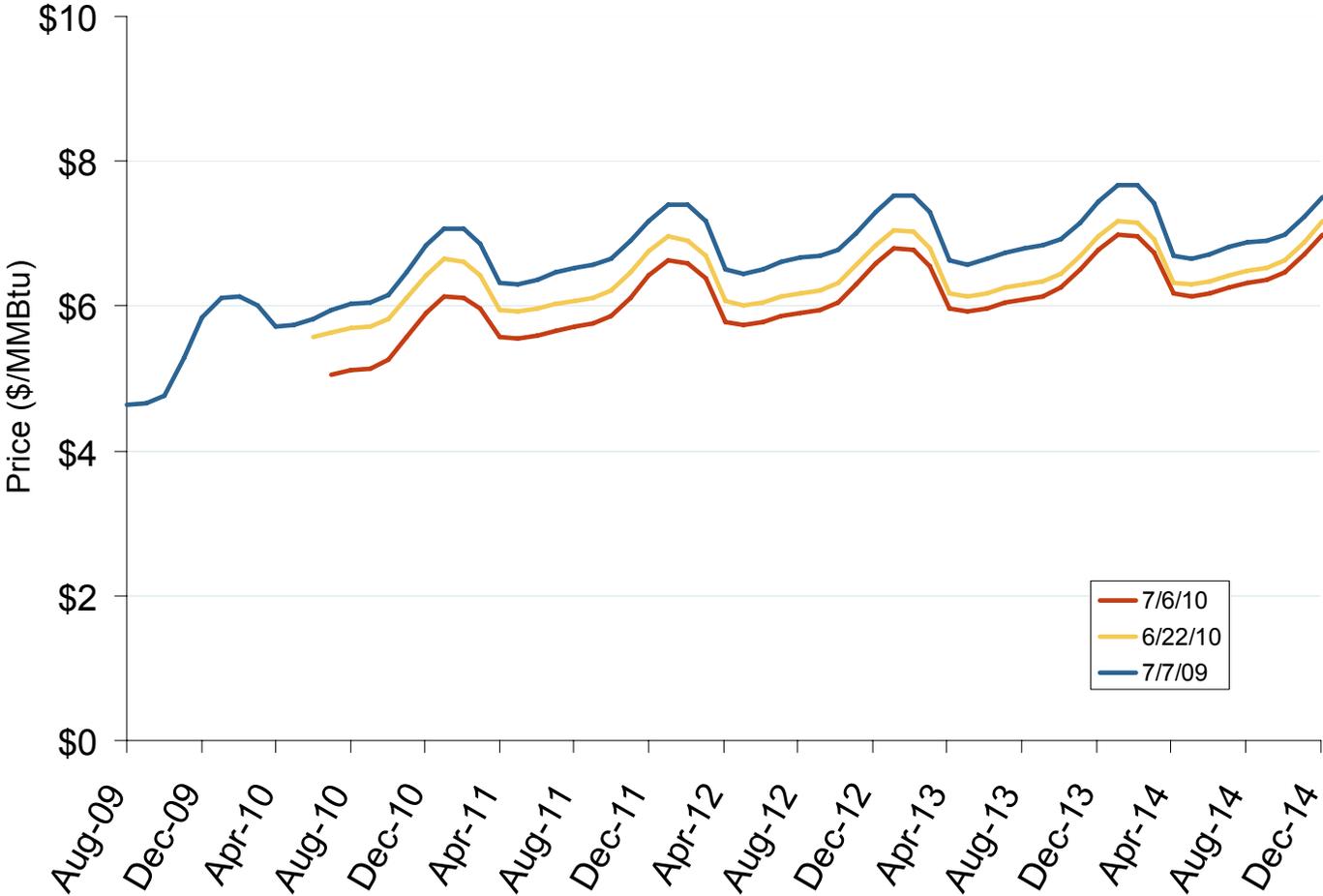


Source: Derived from *Bentek* data.

\* 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

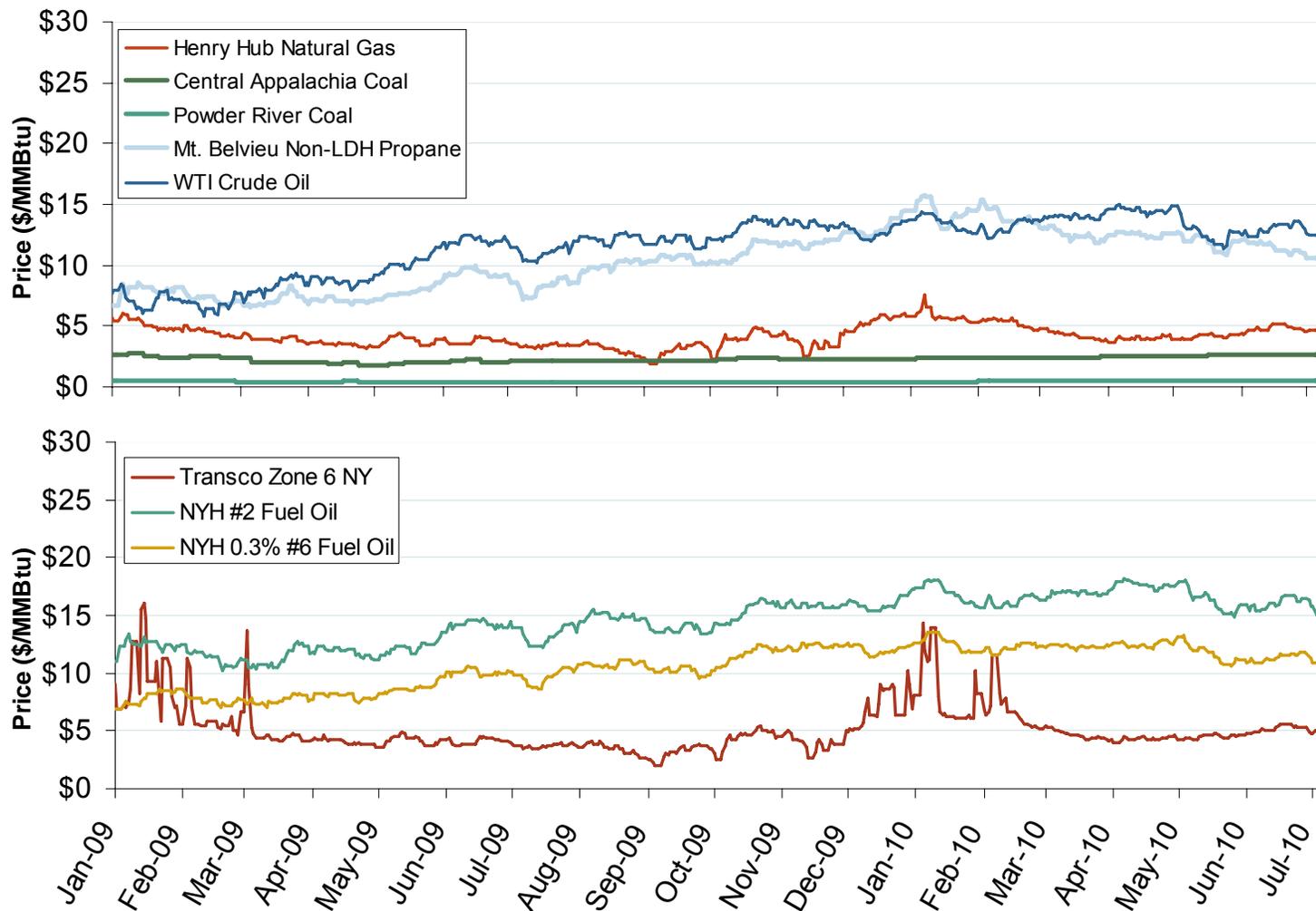
# NYMEX Natural Gas Forward Price Curve



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.

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

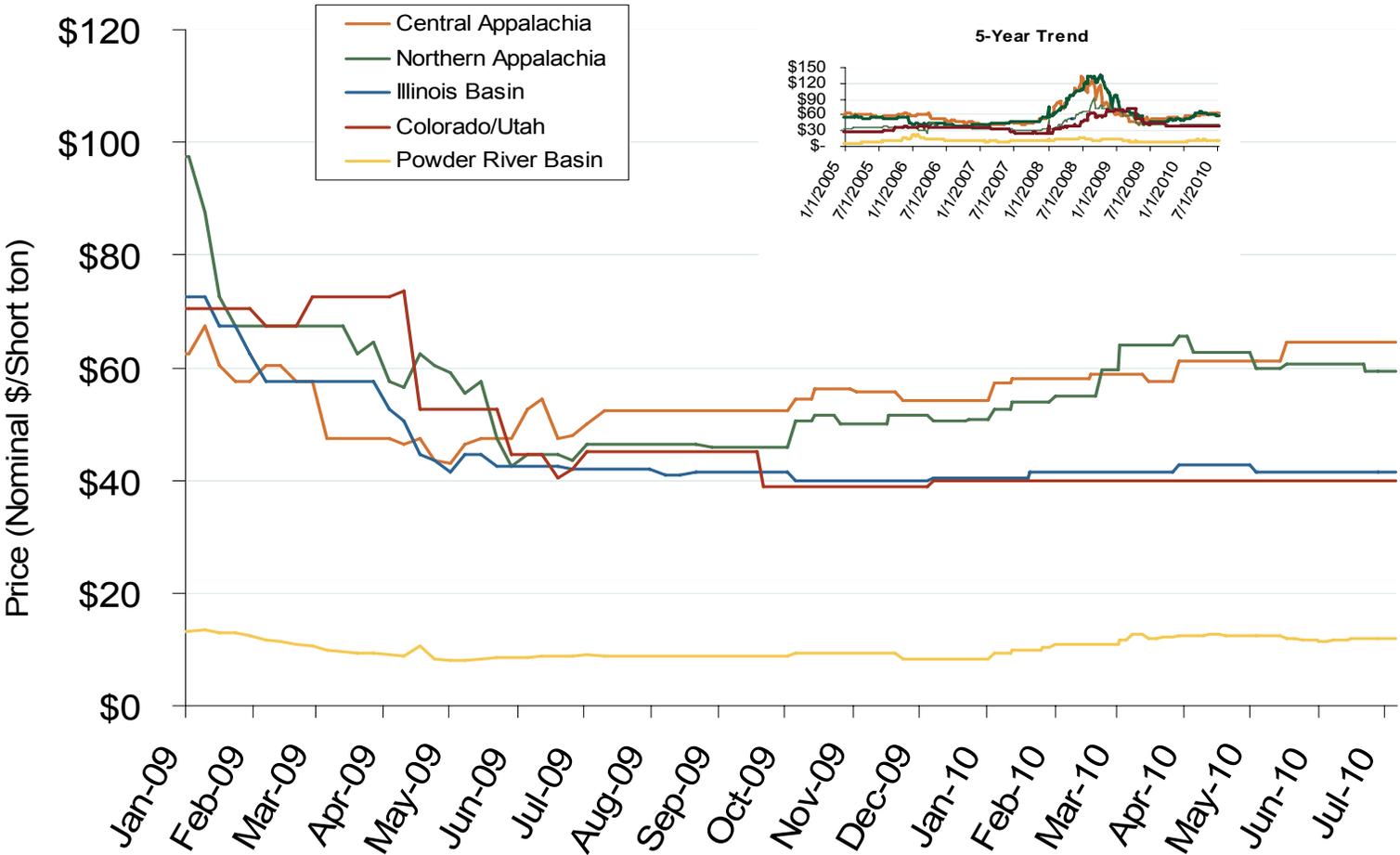


Source: Derived from *ICE* and *Bloomberg* data.

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

# Regional Coal Spot Prices

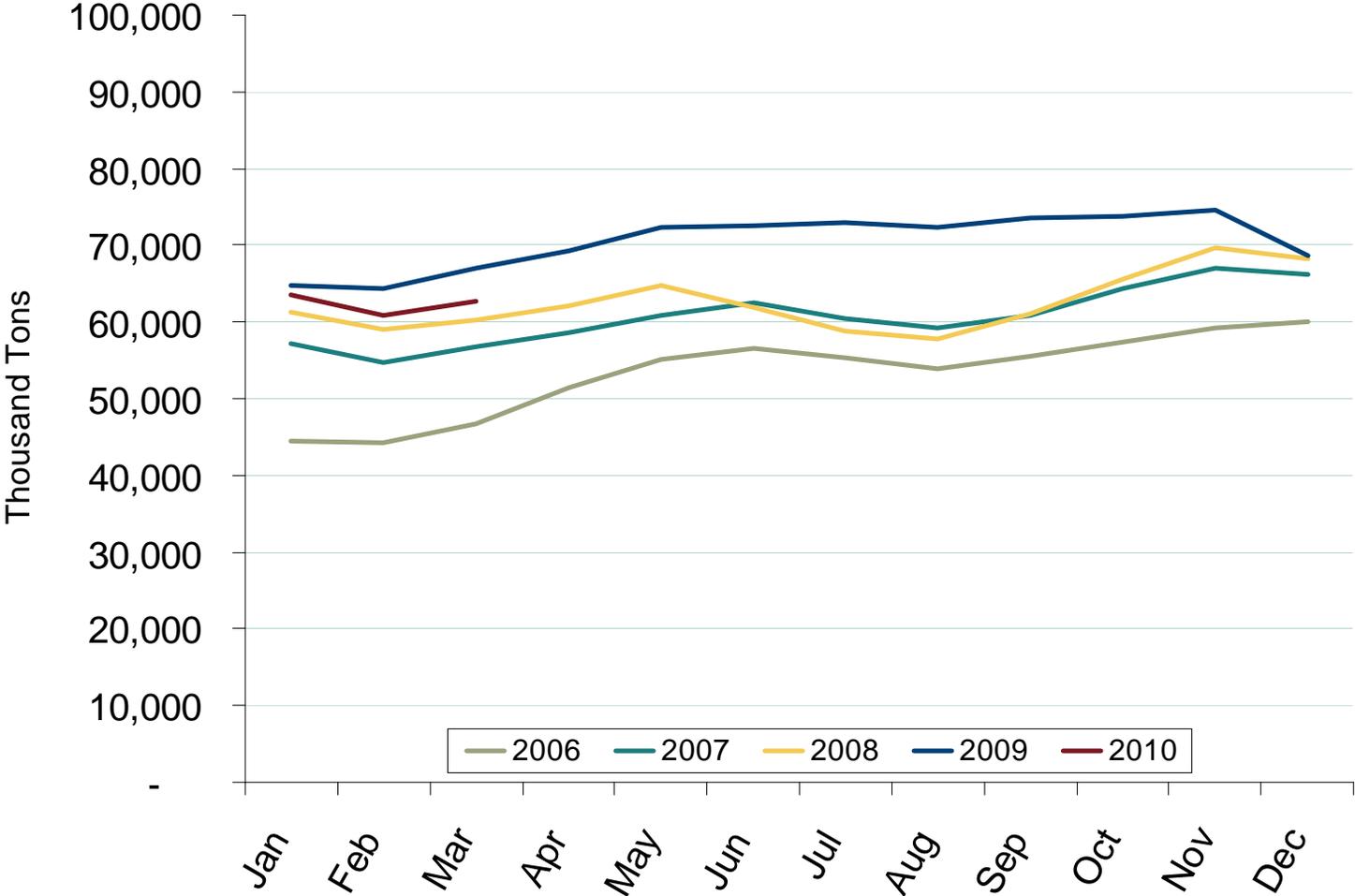


Note: the Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010

# Midwest Coal Stockpiles at Electric Power Generating Facilities



Source: Energy Information Administration. Excludes Industrial and Commercial Plants.  
July 2010 Midwest Snapshot Report

Updated July 9, 2010