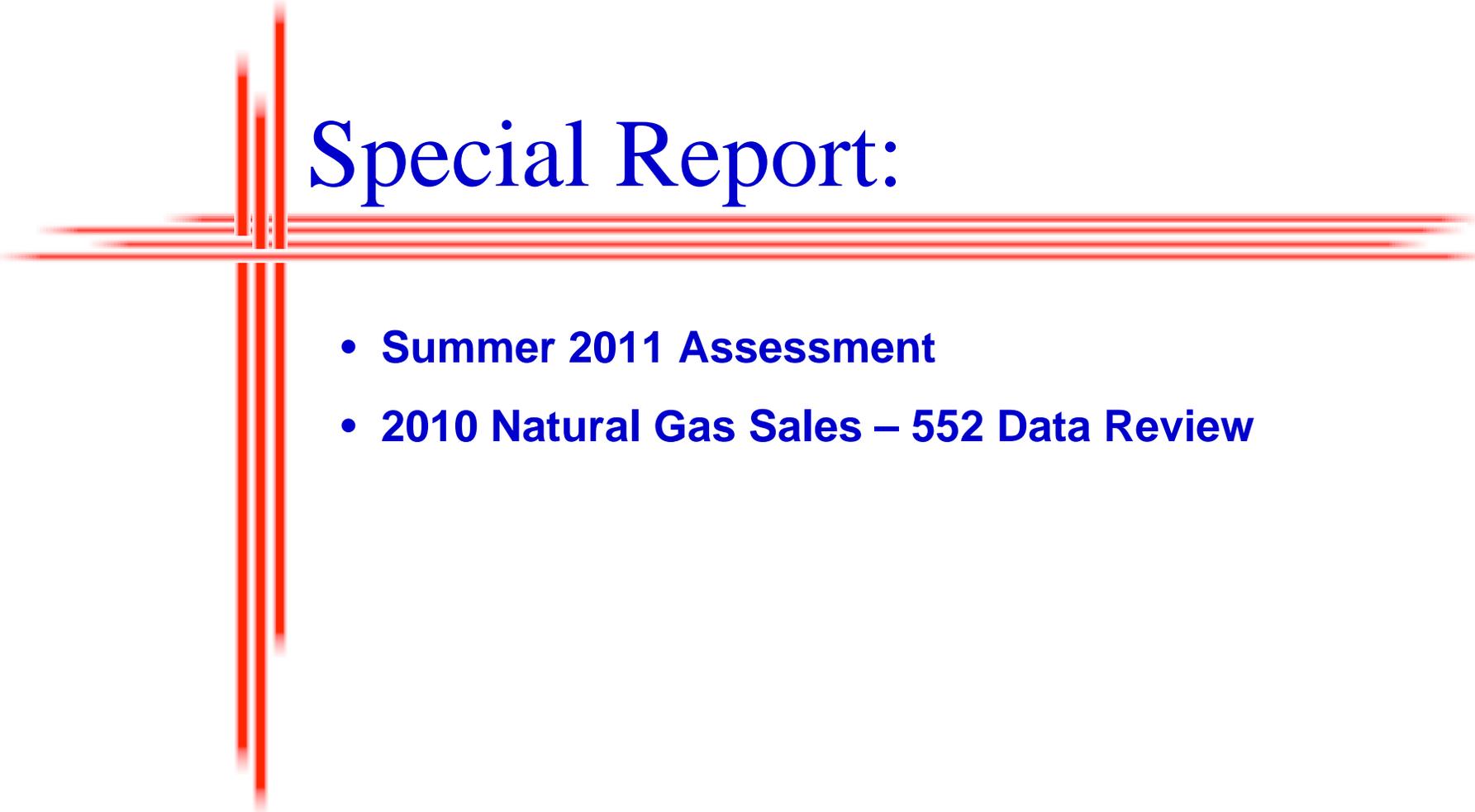


# OE ENERGY MARKET SNAPSHOT

## Midwest 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

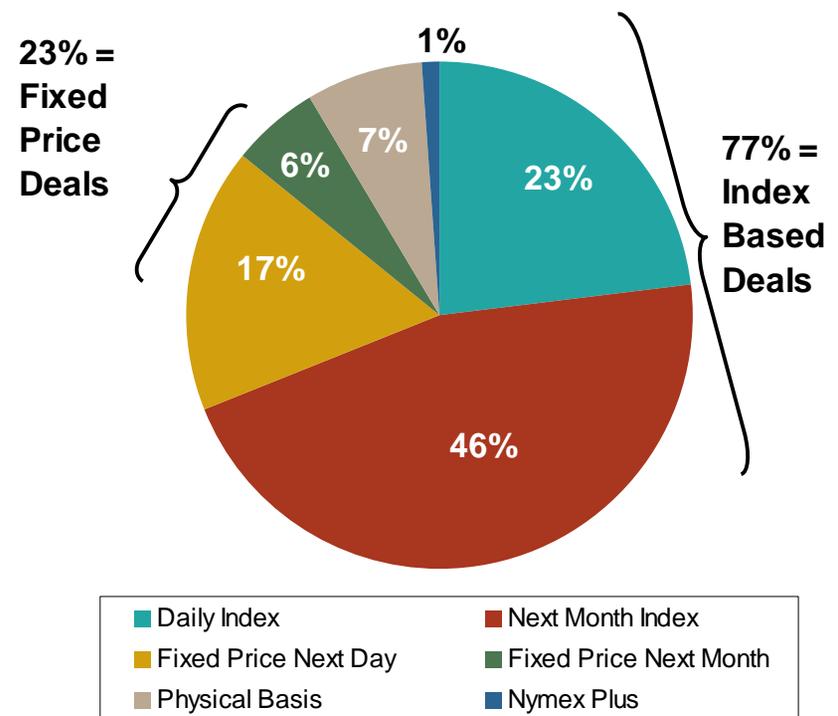
**Item No: A-3**  
**May 19, 2011**

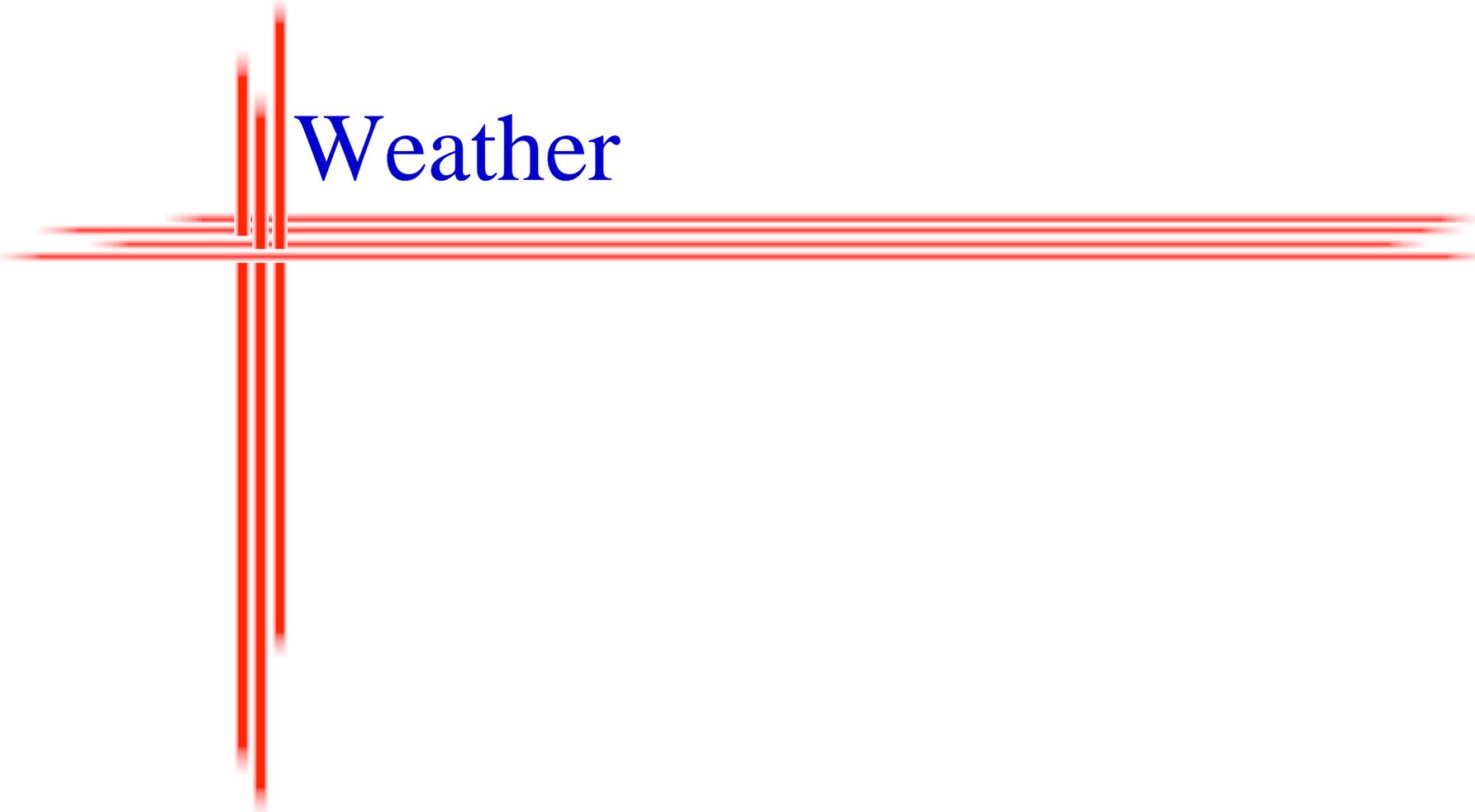
<http://www.ferc.gov/market-oversight/mkt-views/2011/05-19-11.pdf>

## 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.

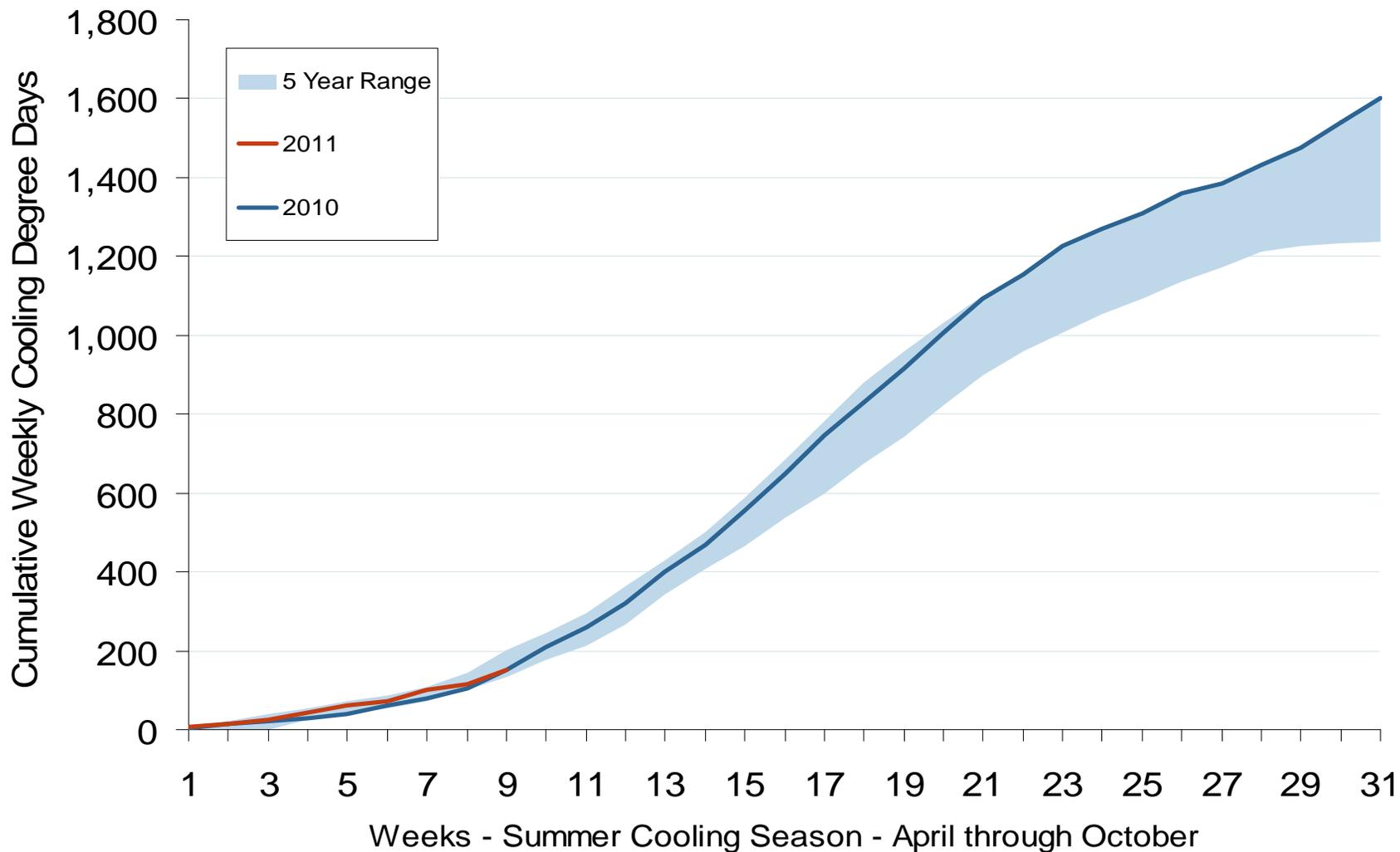
**Breakdown of Form No. 552 Reportable Sale Volumes for Calendar Year 2010**





# Weather

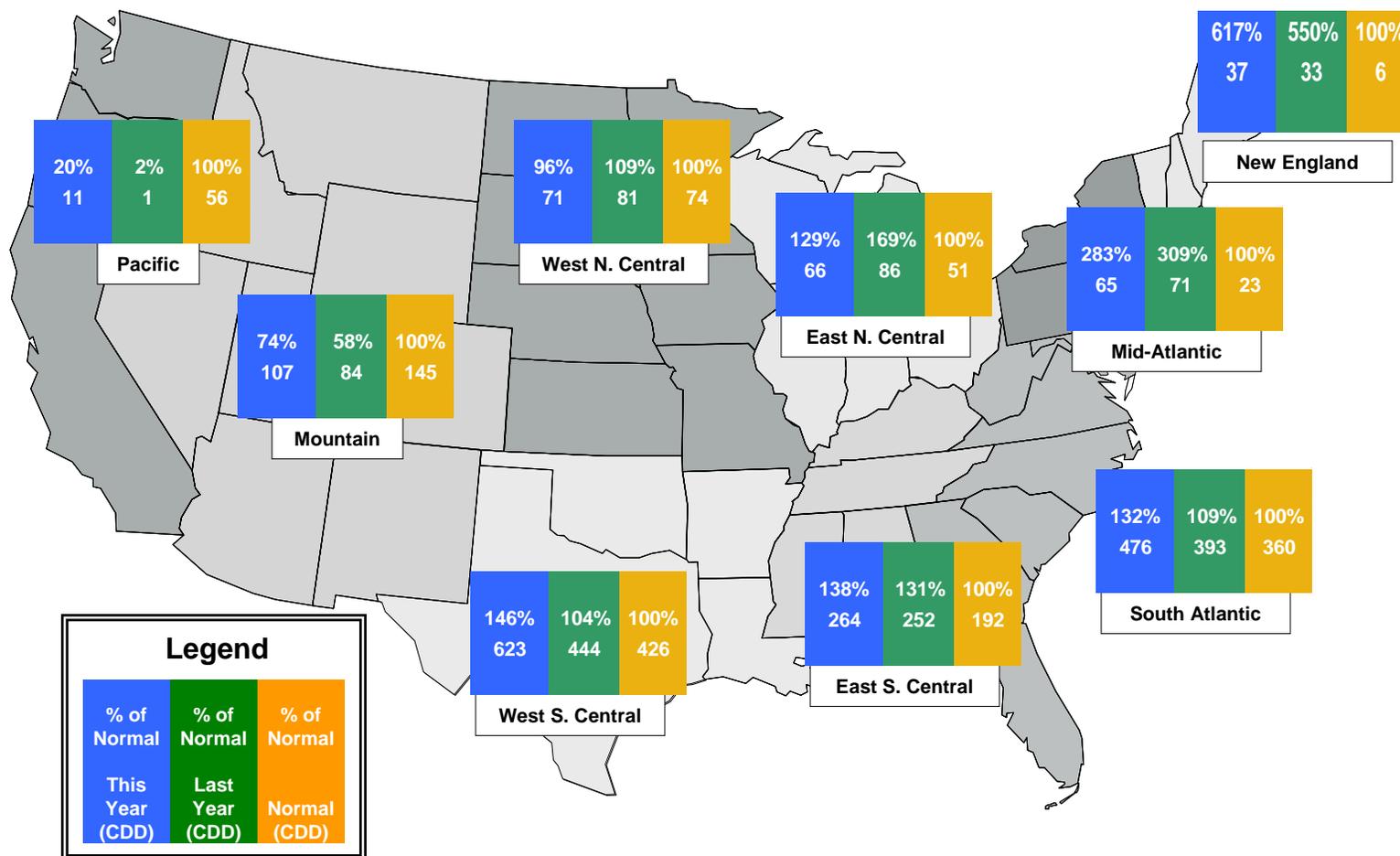
# U. S. Summer Cumulative Cooling Degree Days - 2011



Source: Derived from NOAA data.

Updated June 3, 2011

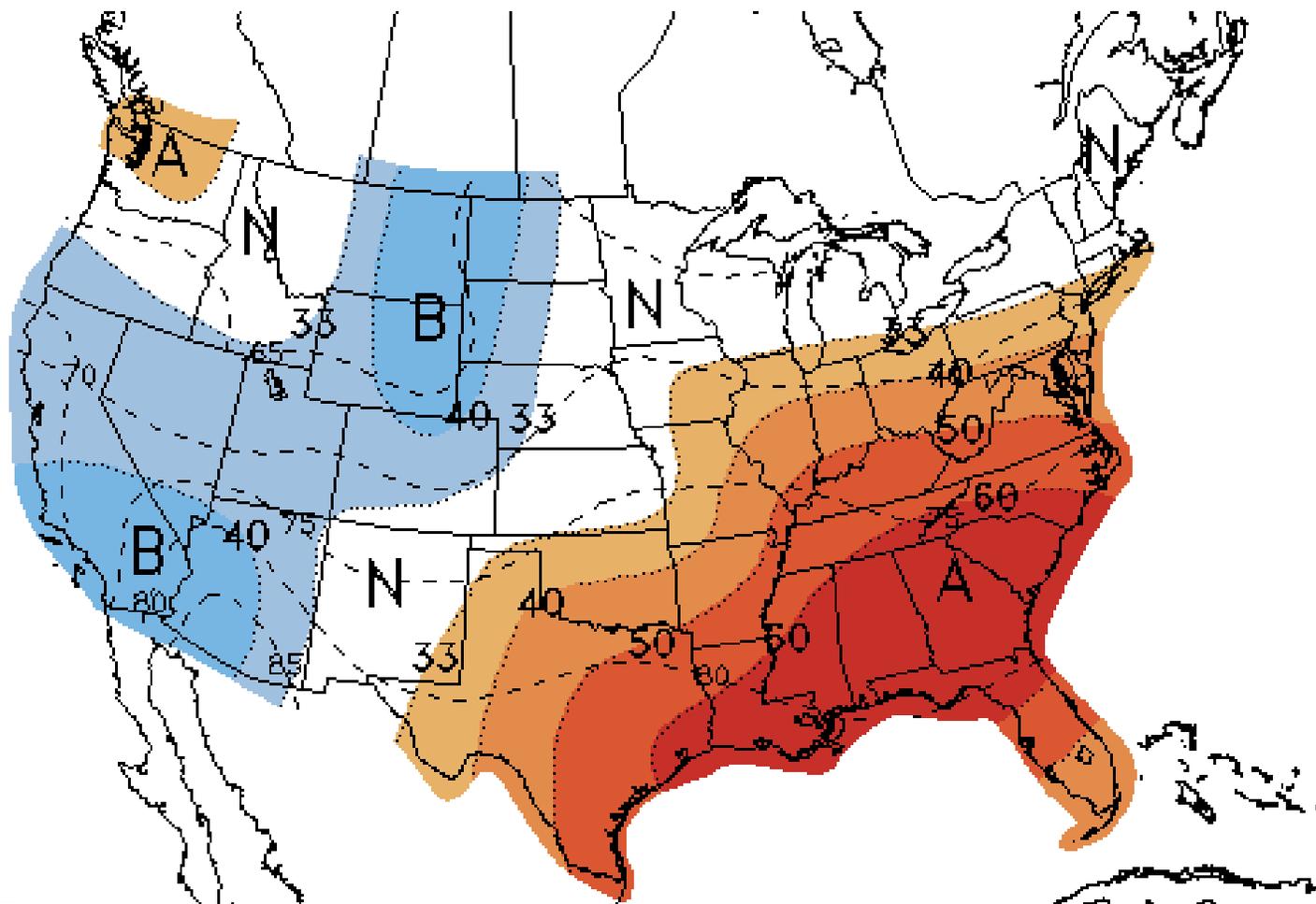
# Regional Cooling Degree Days January Through May 2011



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

Updated June 3, 2011

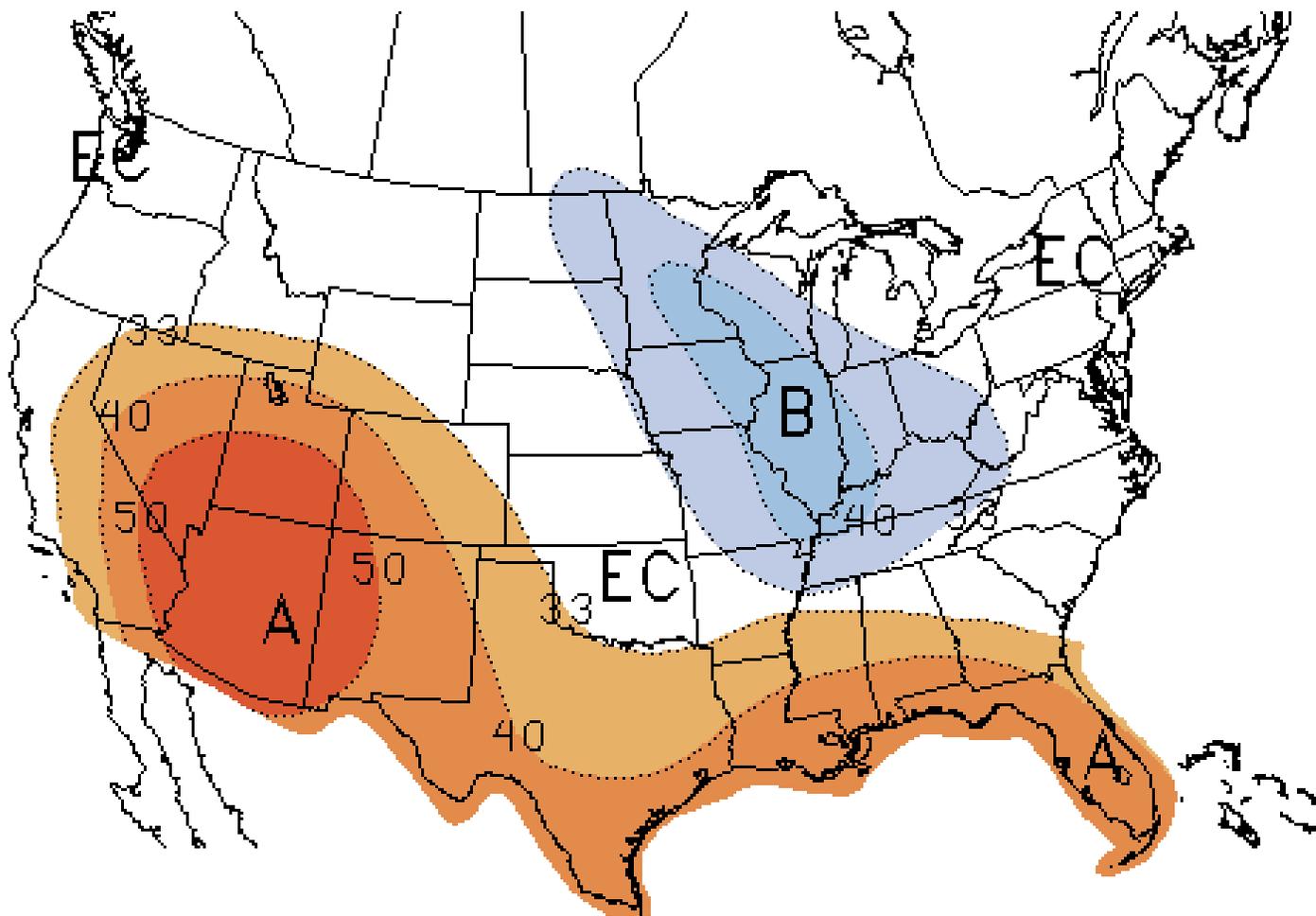
## NOAA's 8 to 14 Day Temperature Forecast Made June 6, 2011, Valid for June 2011



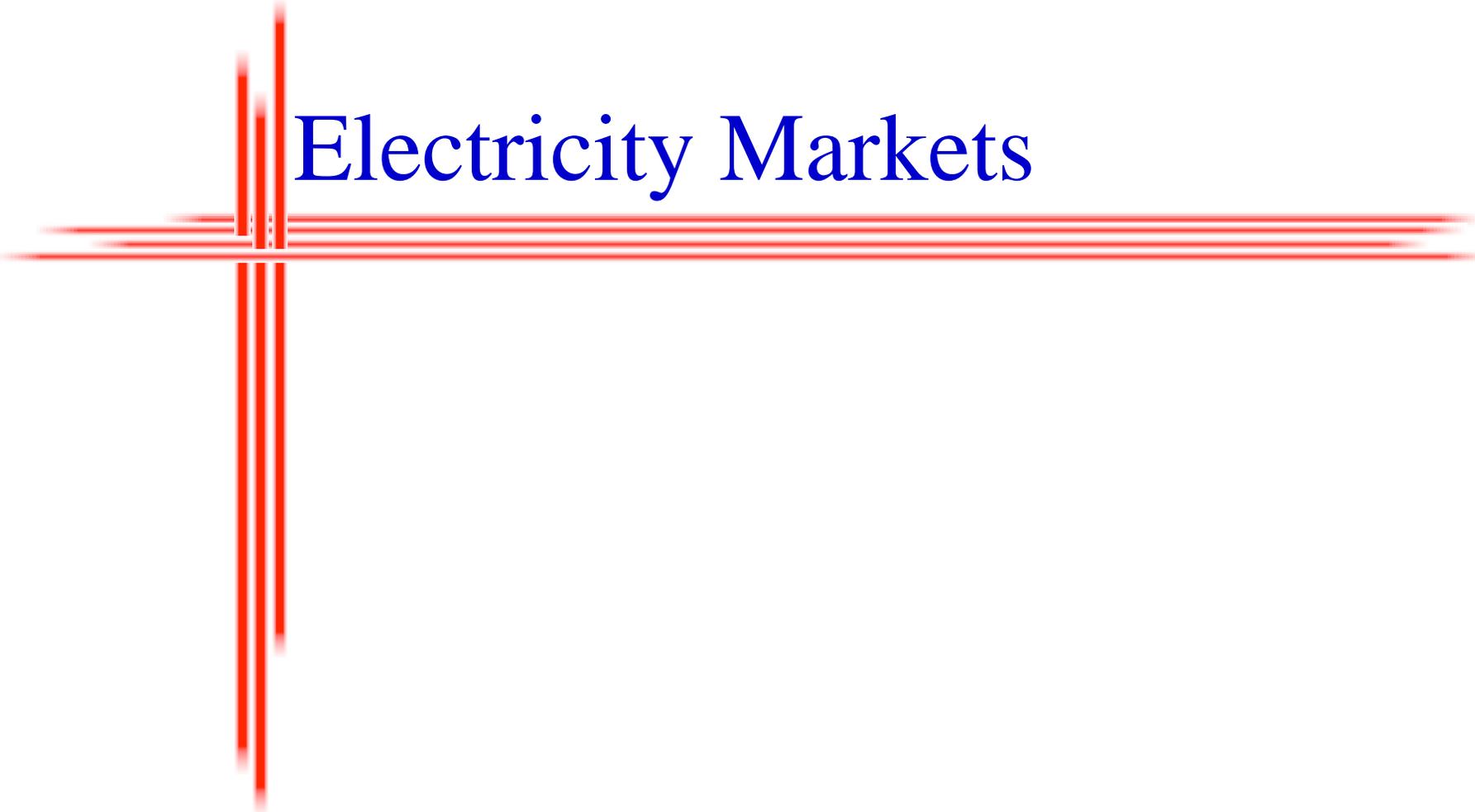
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: Derived from NOAA data.

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

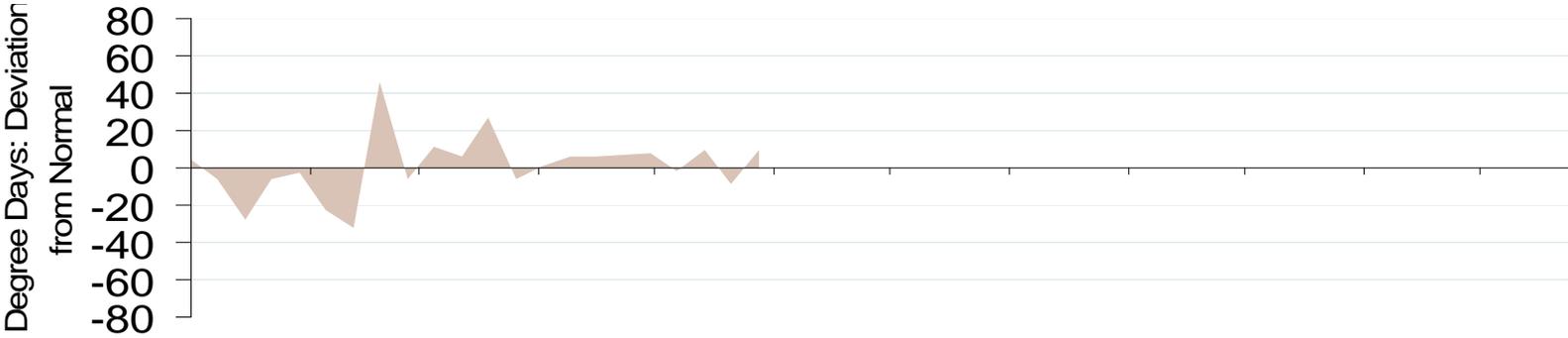
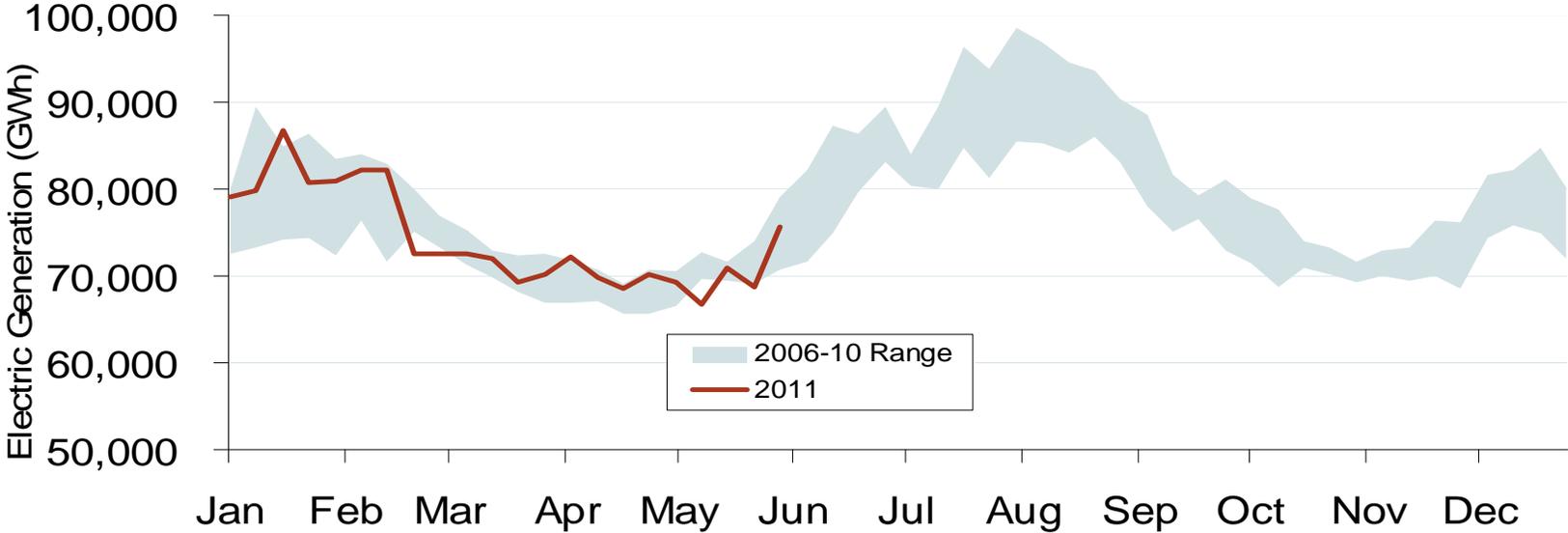


Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.  
Source: Derived from NOAA data.



# Electricity Markets

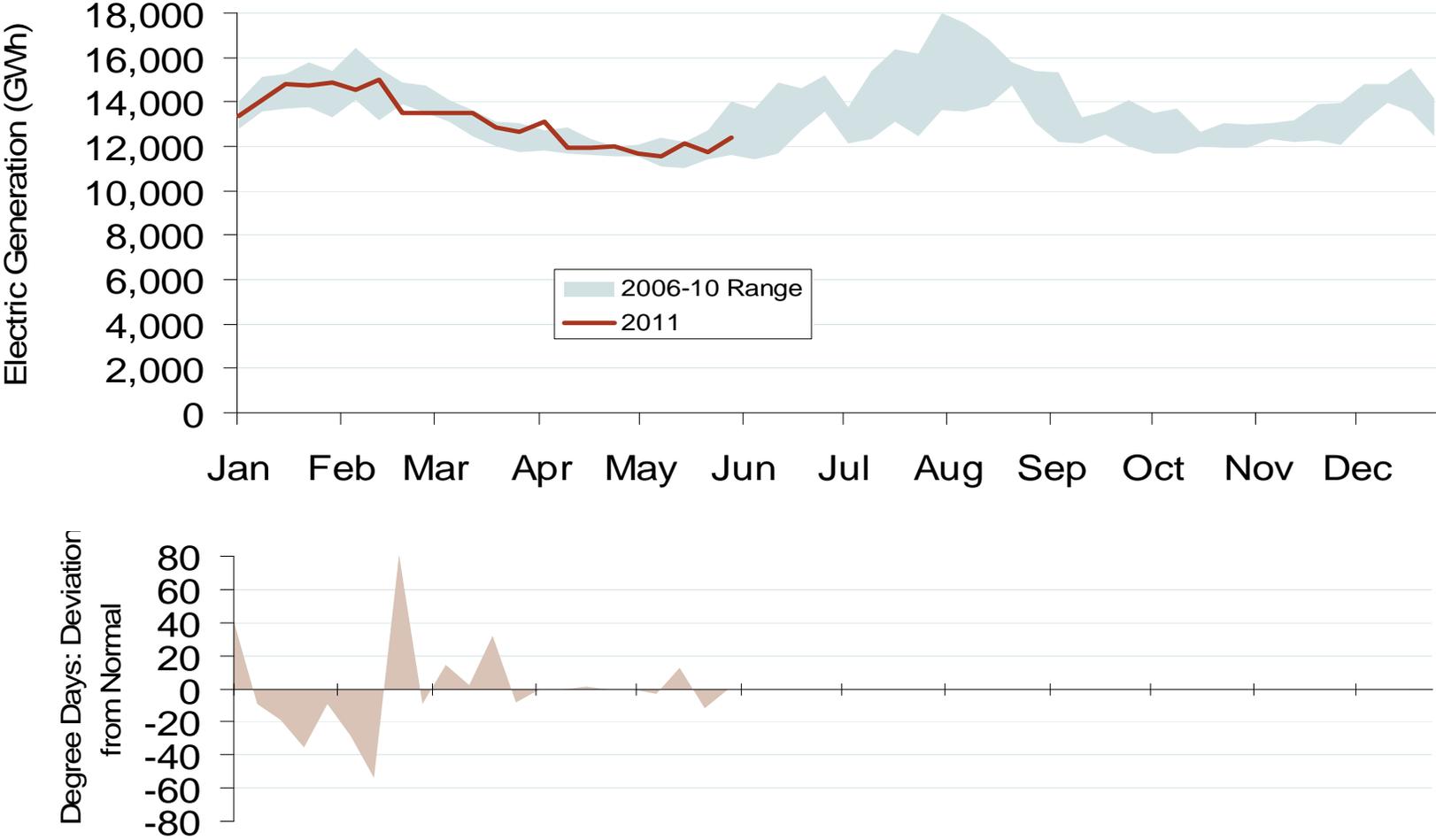
# Weekly U.S. Electric Generation Output and Temperatures



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

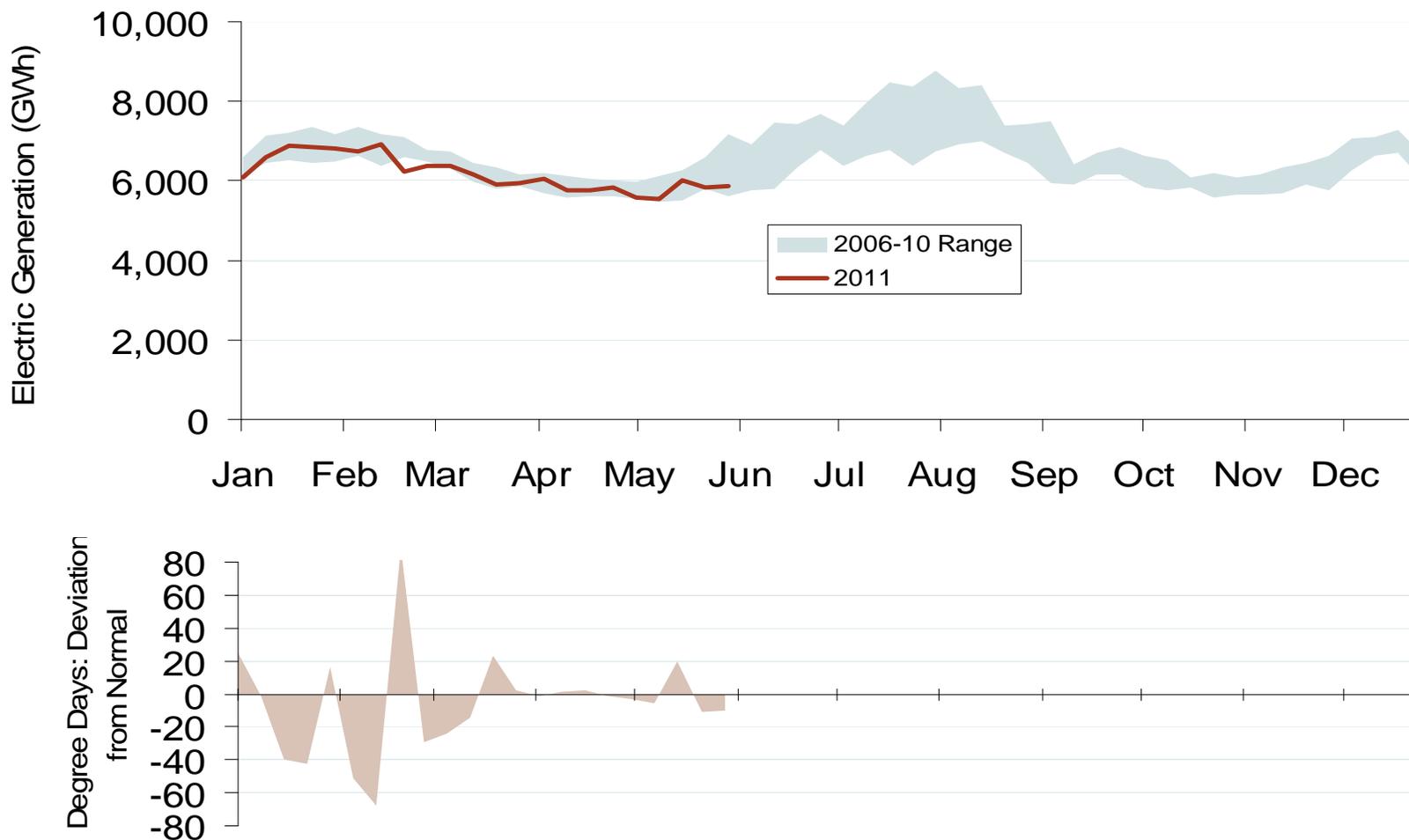
Updated June 3, 2011

# Weekly Electric Generation Output and Temperatures Central Industrial Region



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

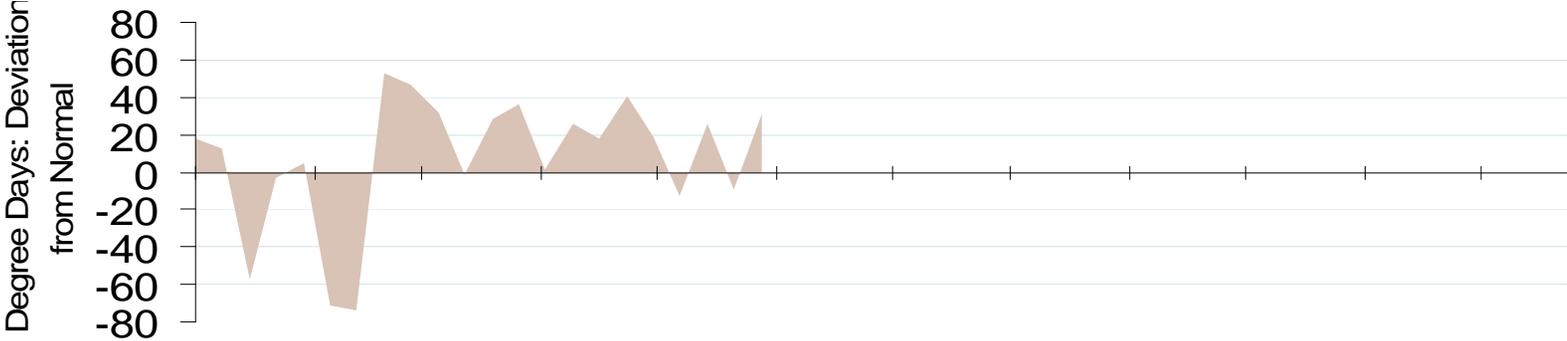
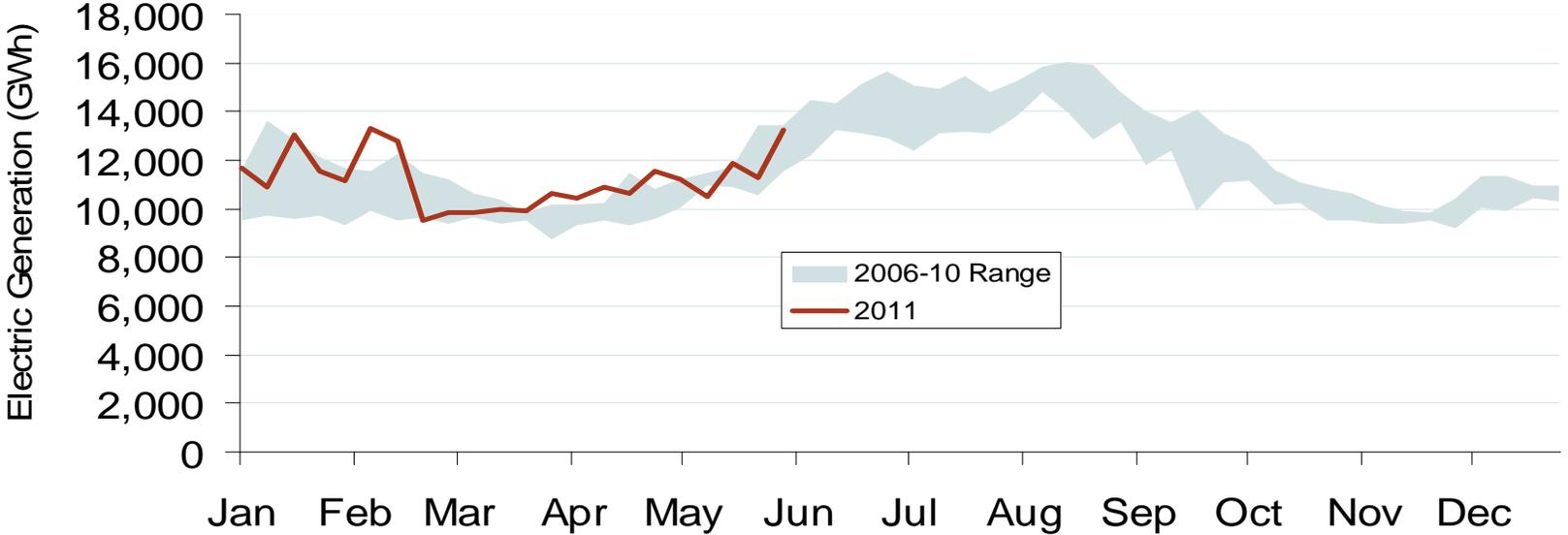
# Weekly Electric Generation Output and Temperatures West Central Region



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

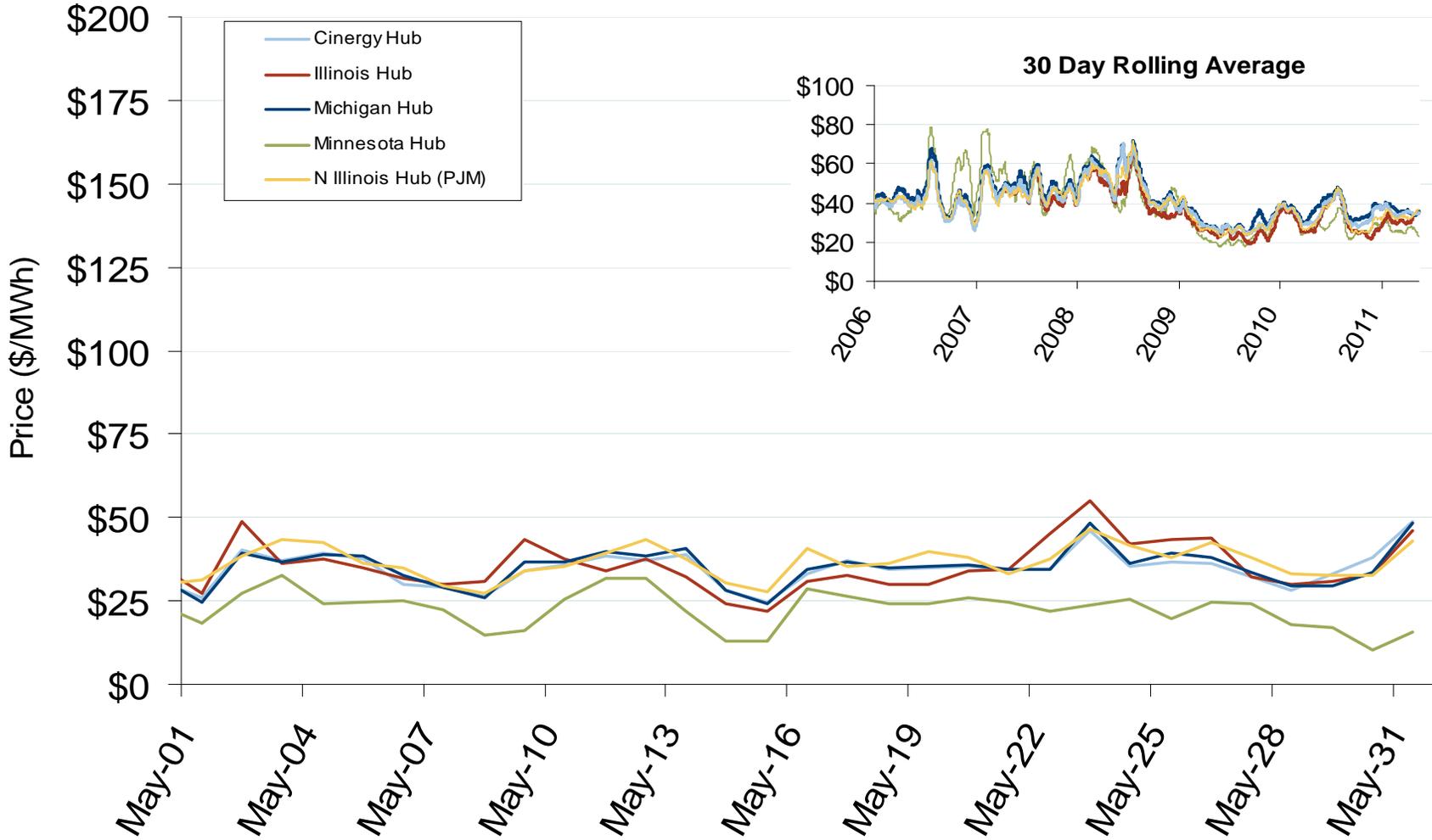
Updated June 3, 2011

# Weekly Electric Generation Output and Temperatures South Central Region



Source: Derived from EEI and NOAA data.

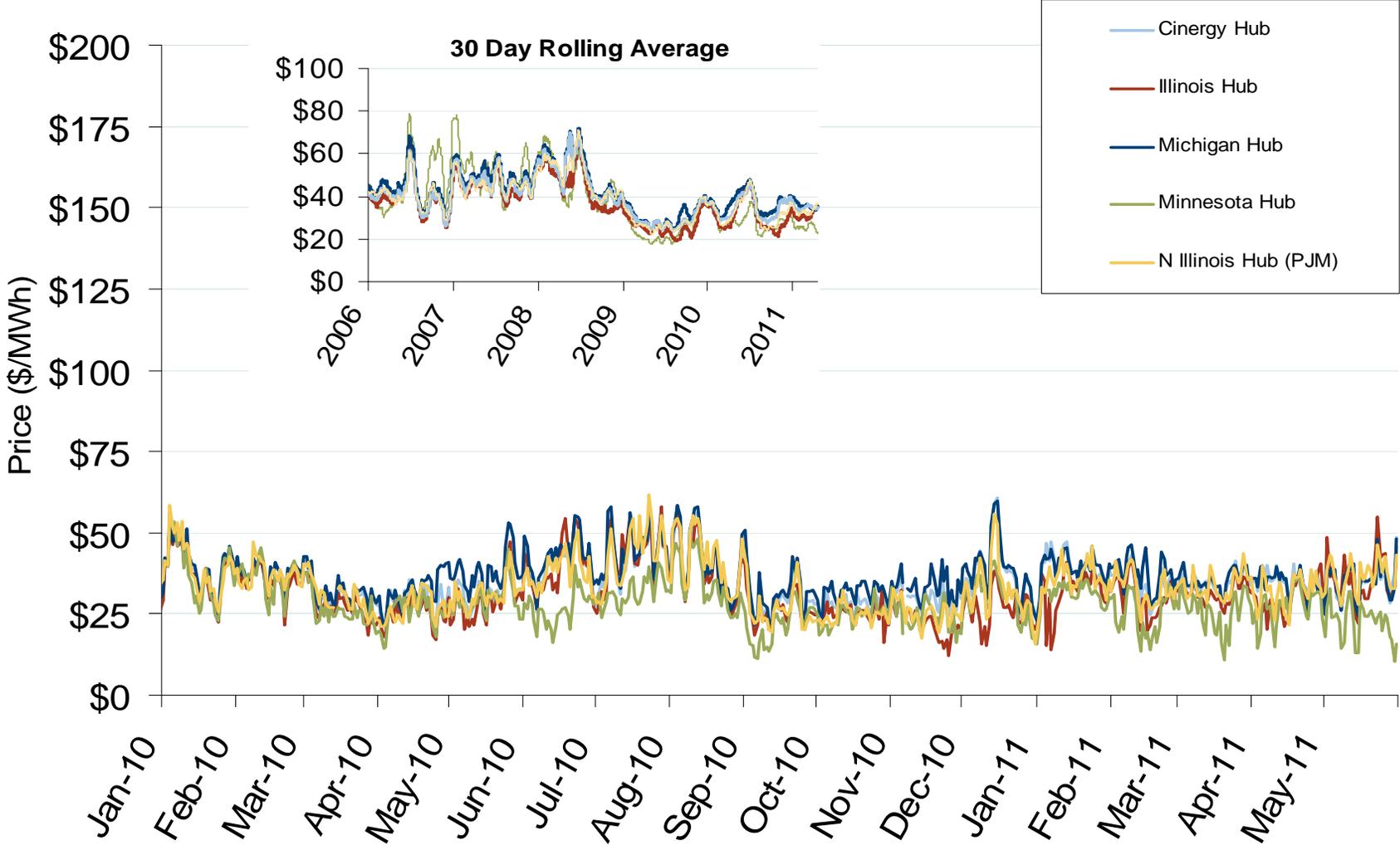
# Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived from *Bloomberg* data.

Updated June 3, 2011

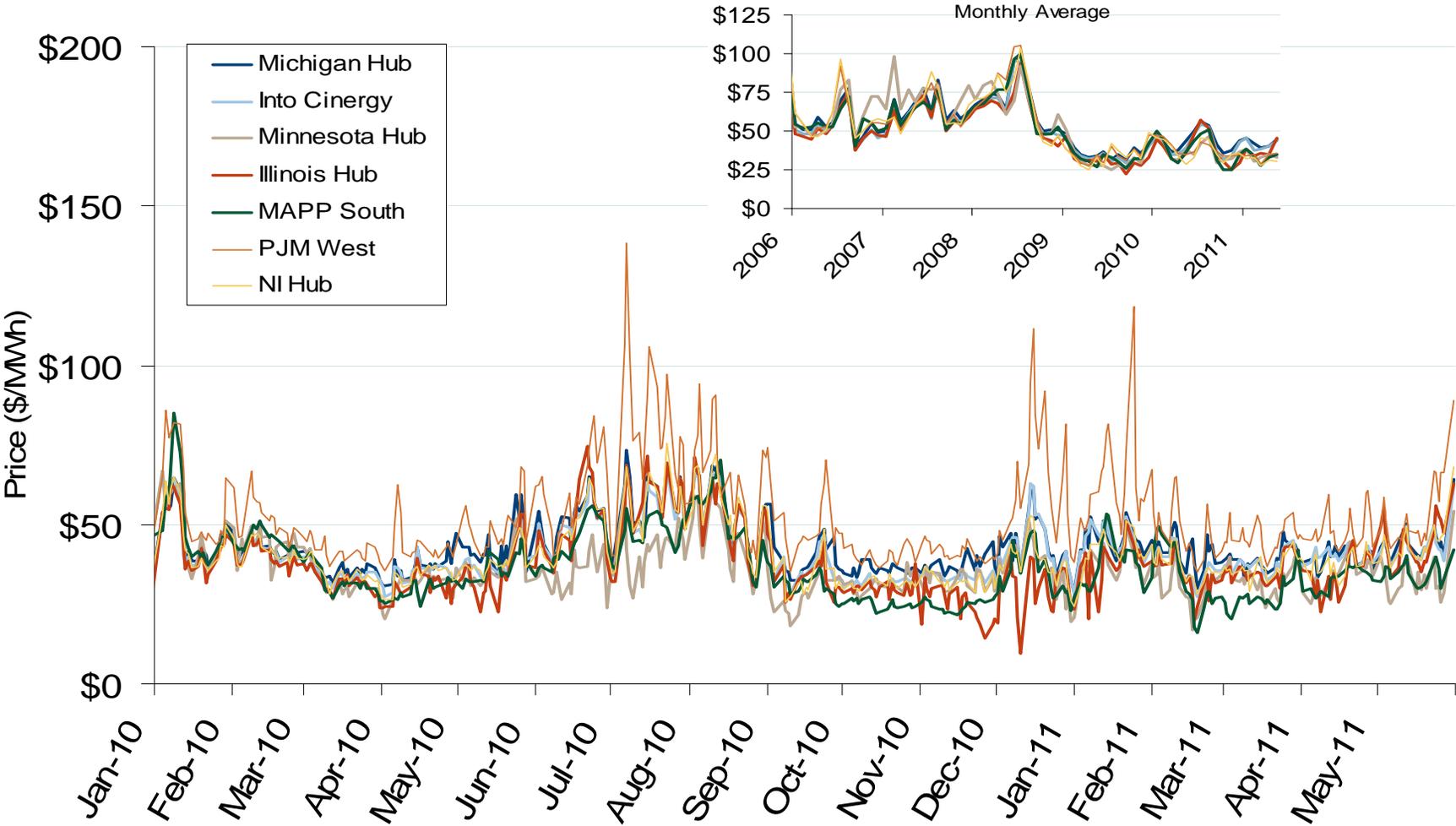
# Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived from *Bloomberg* data.

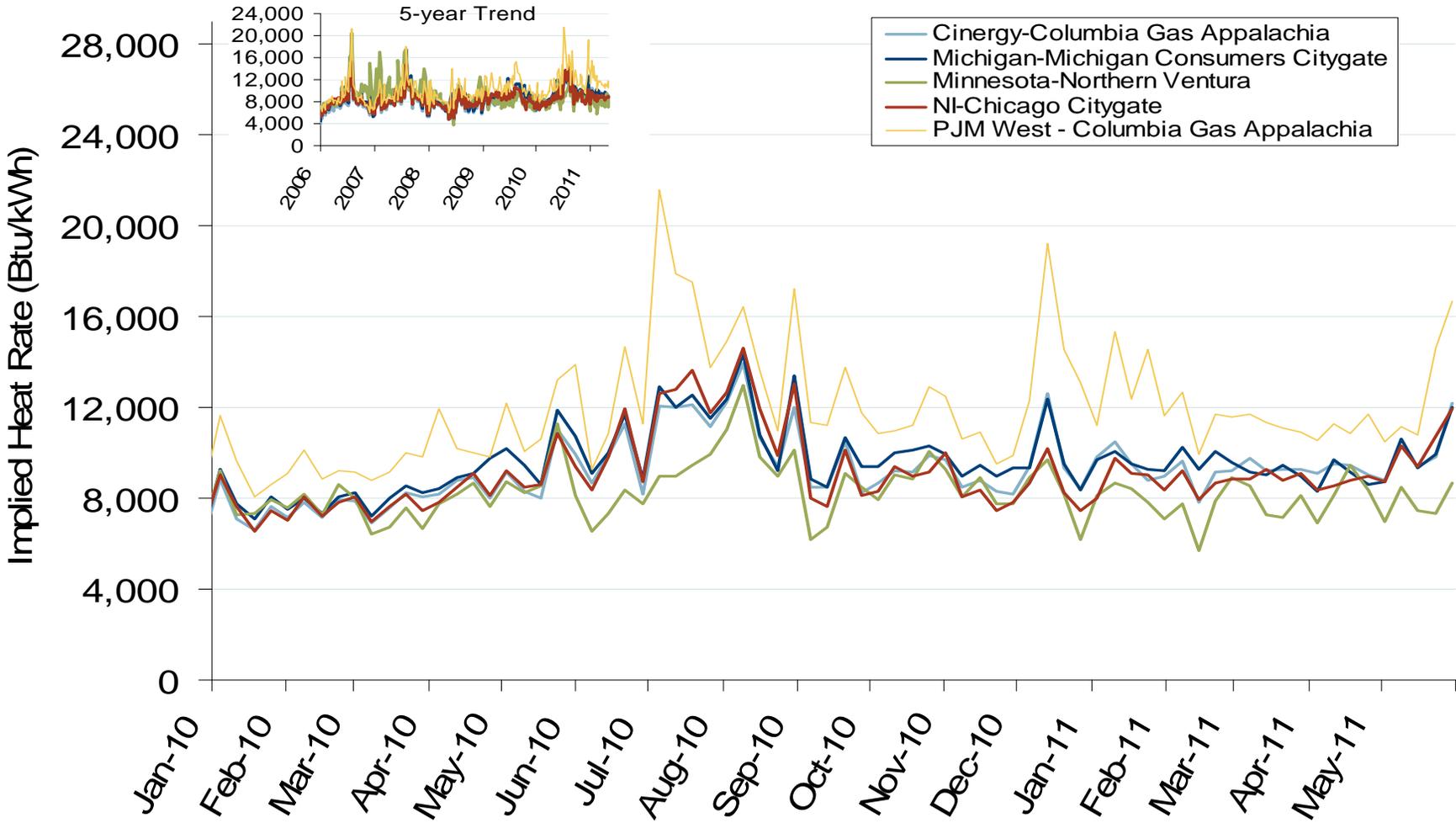
Updated June 3, 2011

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



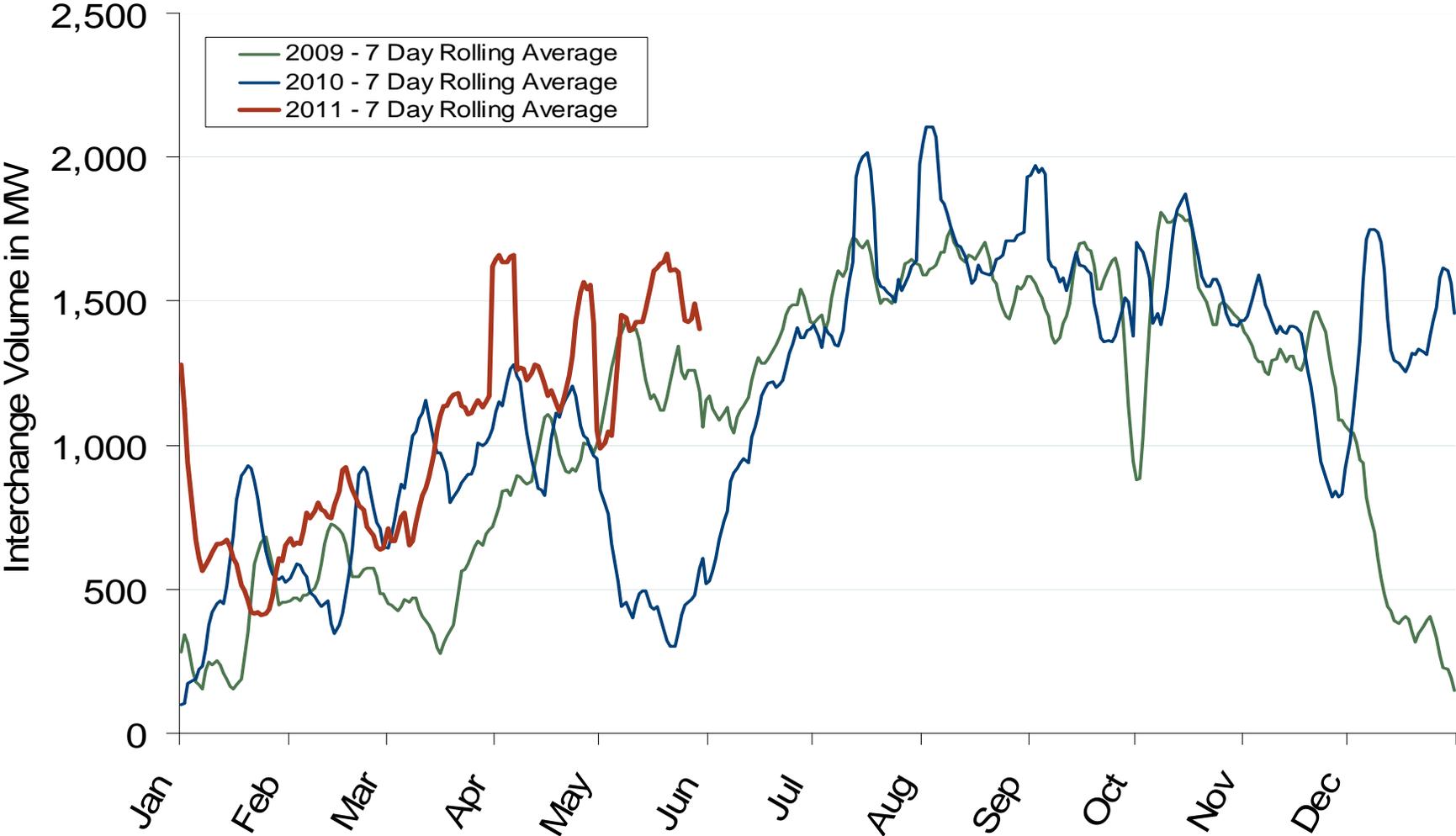
Source: Derived from *Platts* data.

# Midwest Electric Market: MISO/PJM Implied Heat Rates



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

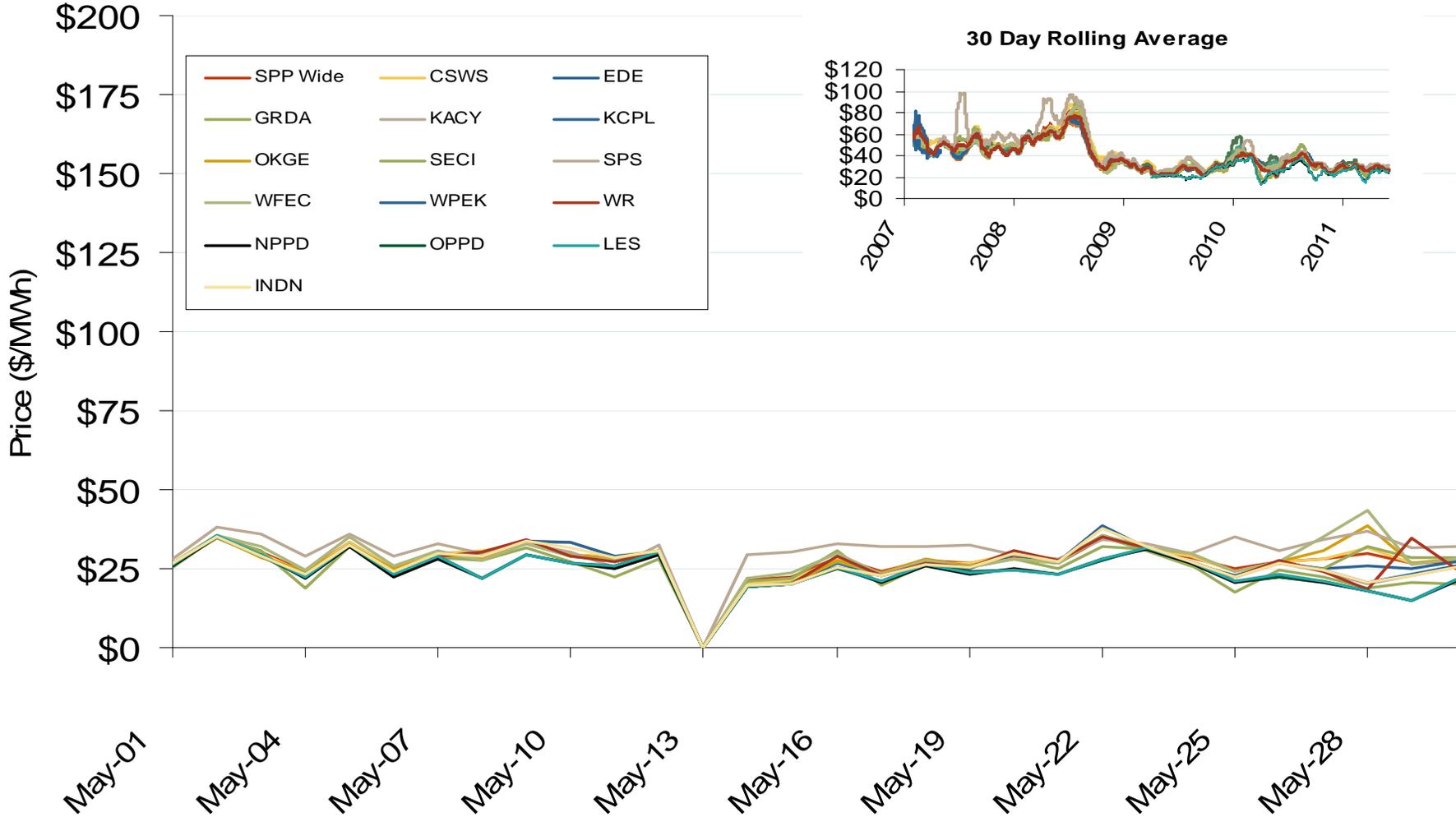
# Imports into MISO from Manitoba Hydro 2009 - 2011



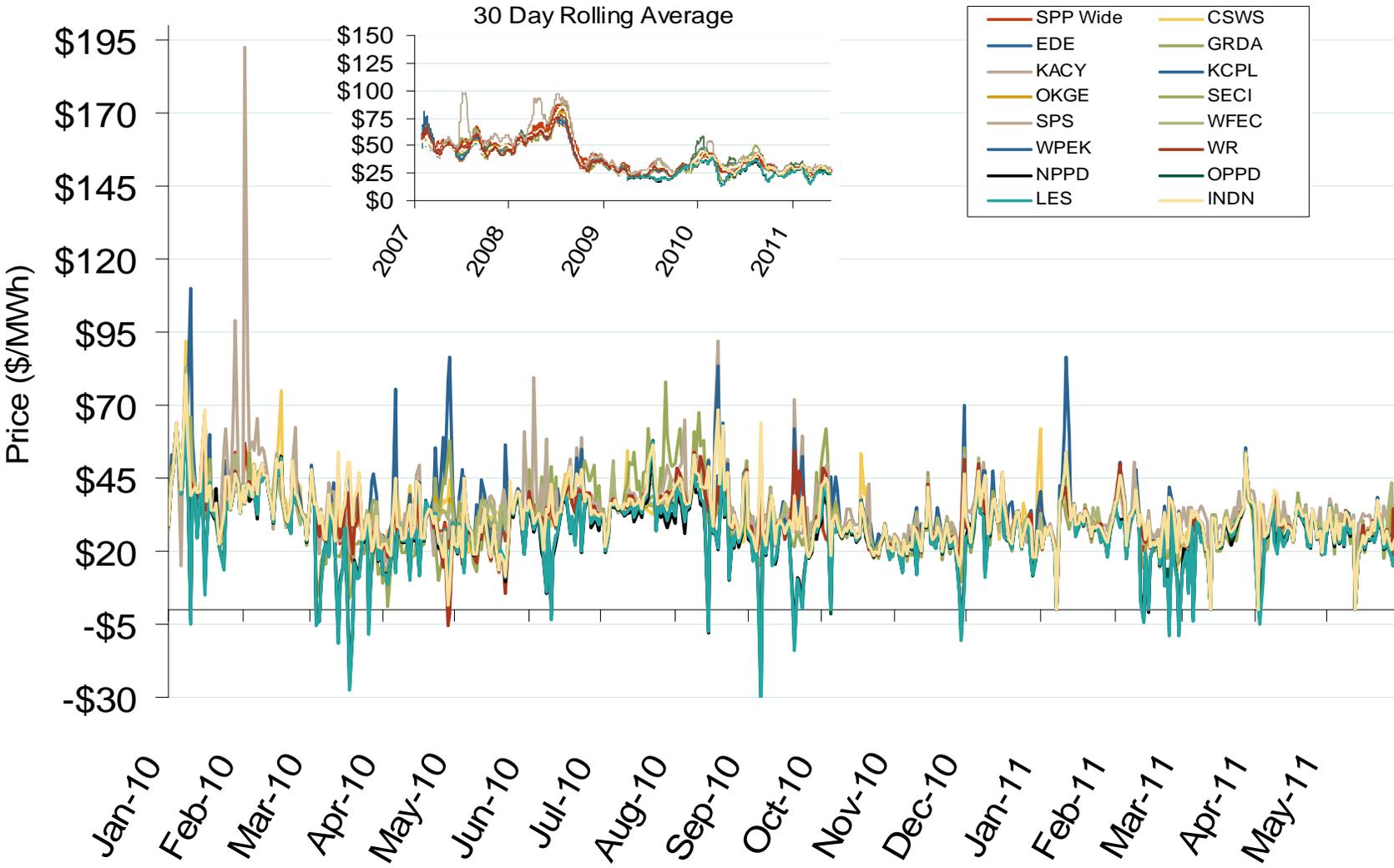
Source: Derived from MISO data.

Updated June 3, 2011

# Daily Average of SPP Real Time Prices - All Hours

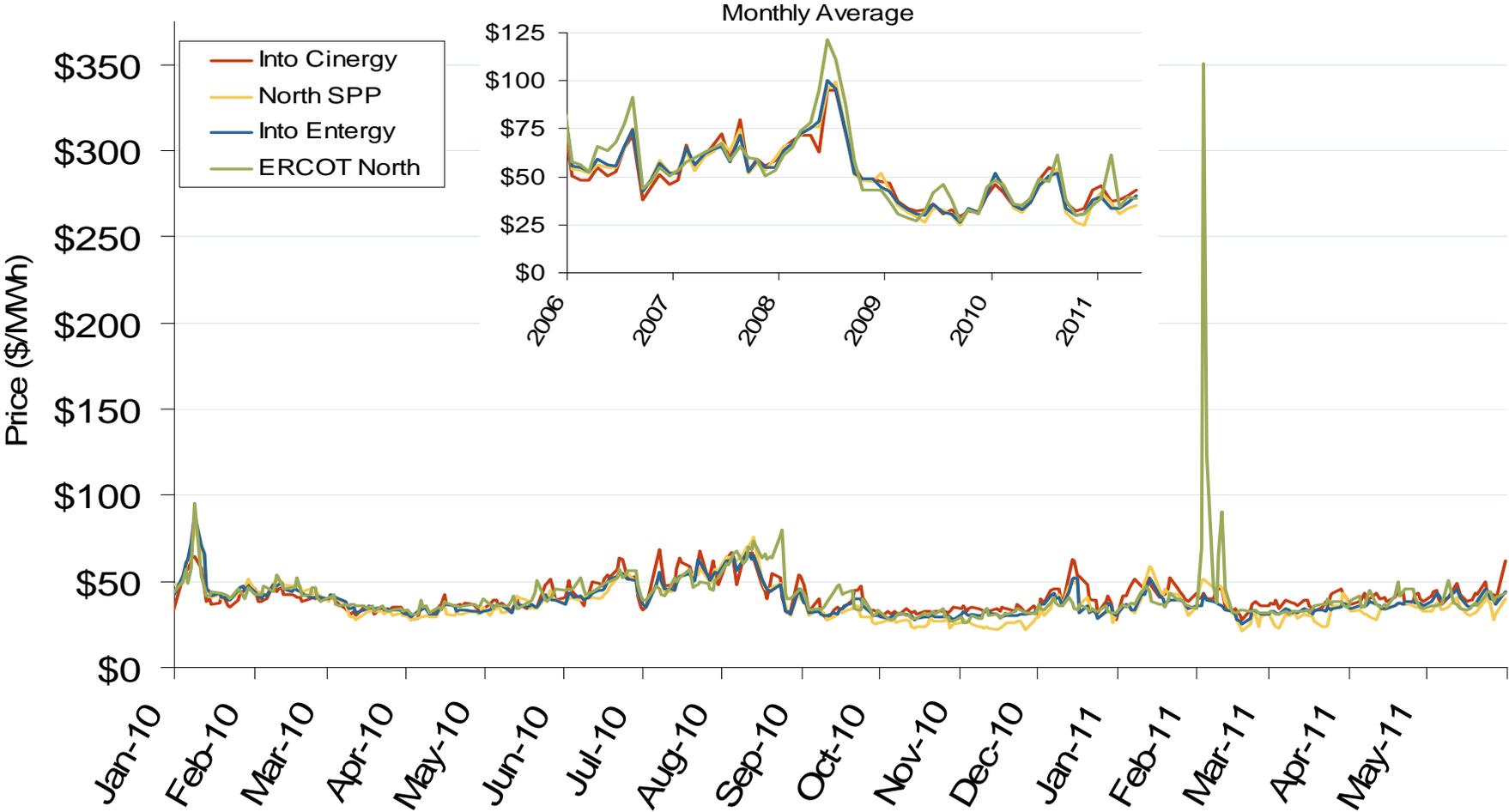


# Daily Average of SPP Real Time Prices - All Hours



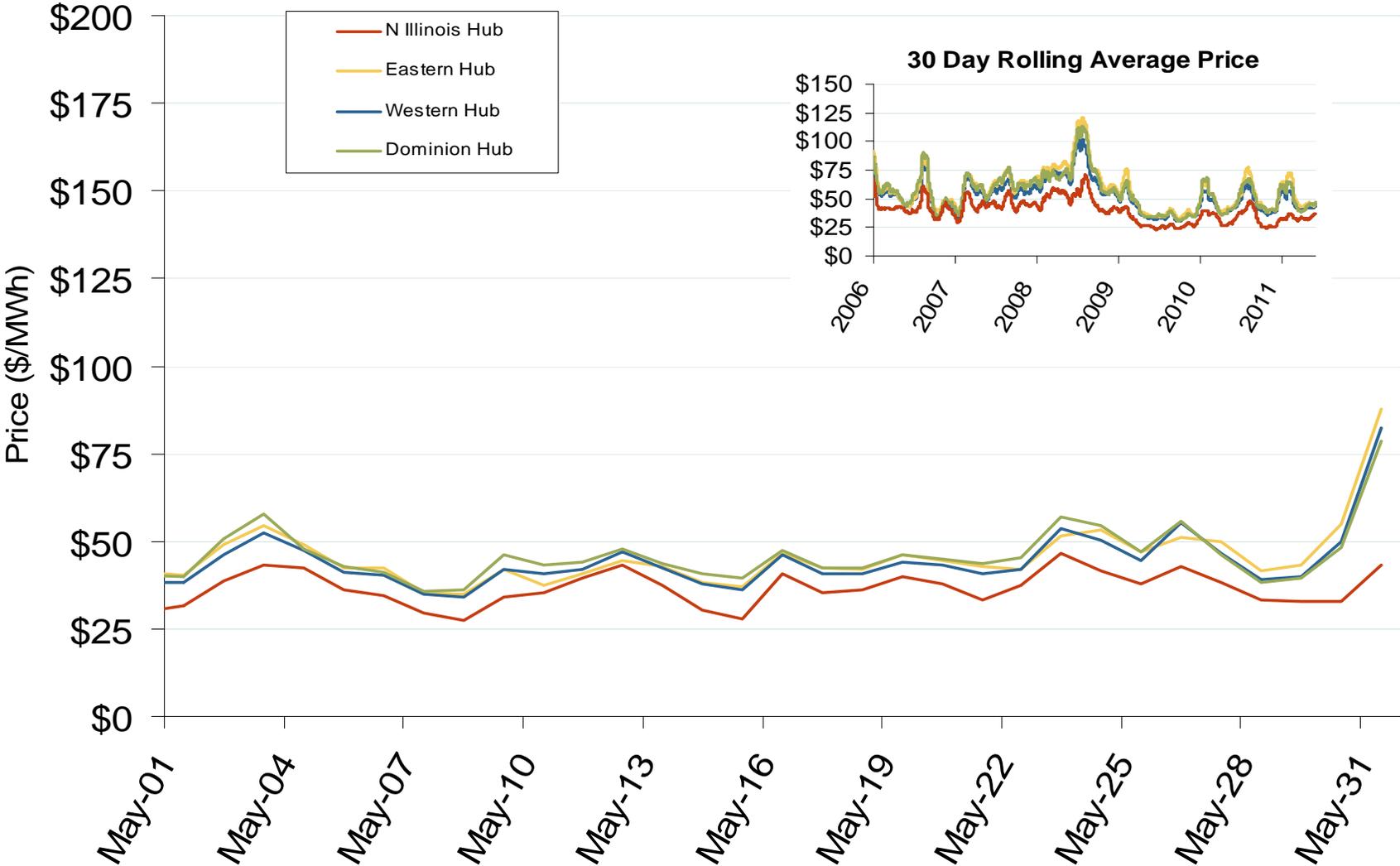
Source: Derived from SPP data.

# Central Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

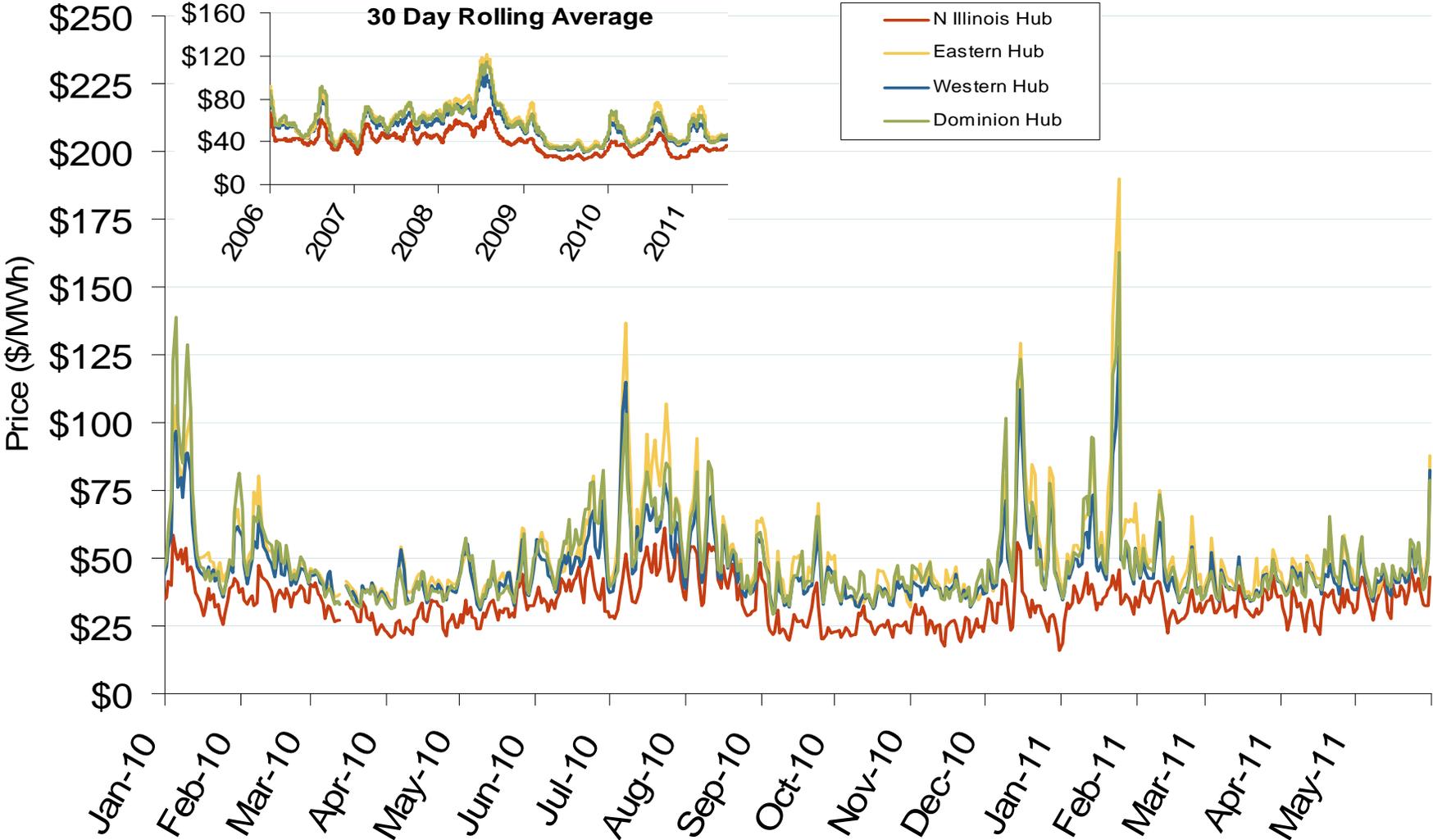
# Daily Average of PJM Day-Ahead Prices - All Hours



Source: Derived from Bloomberg PJM data.

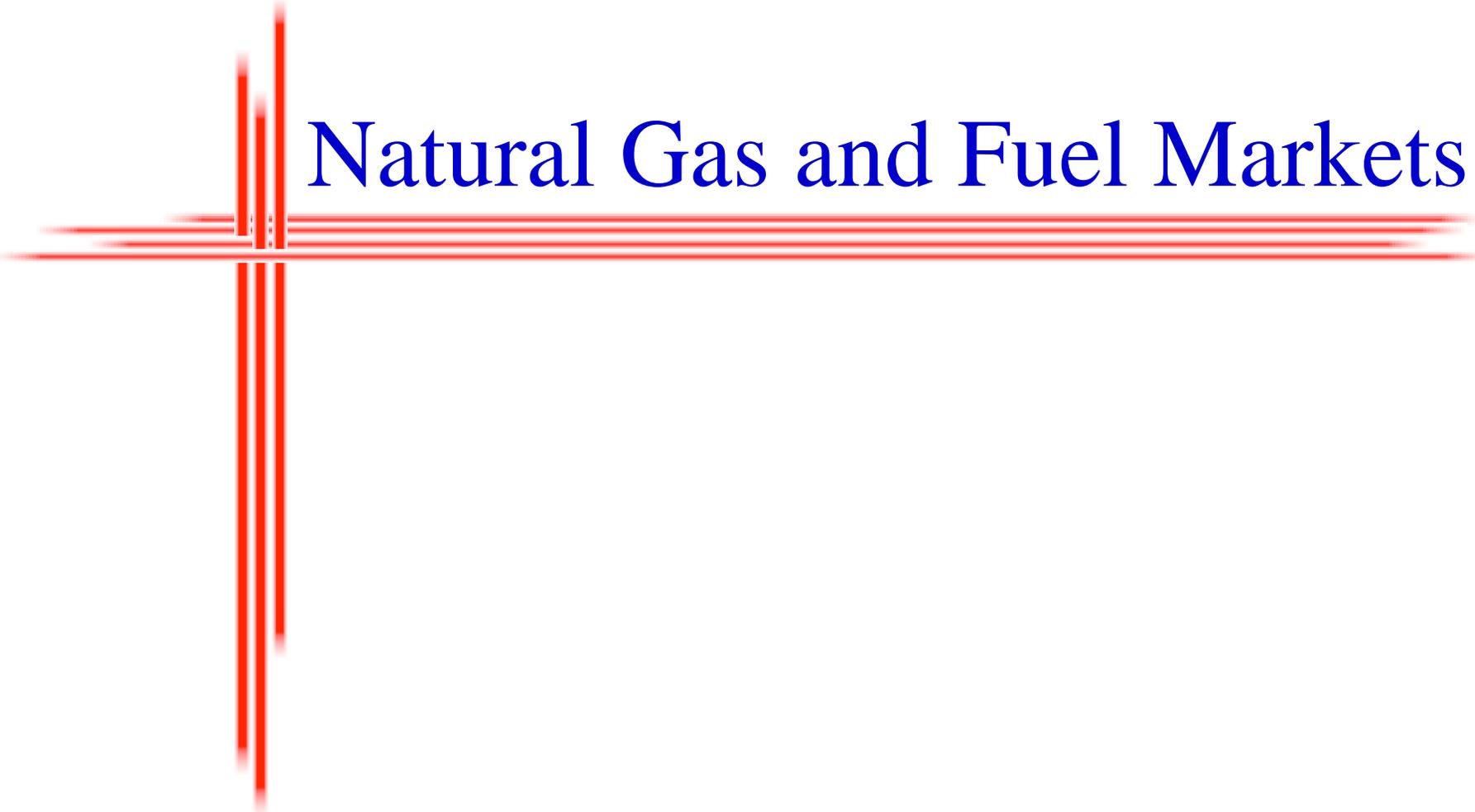
Updated June 3, 2011

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



Source: Derived from *Bloomberg* data.

Updated June 3, 2011

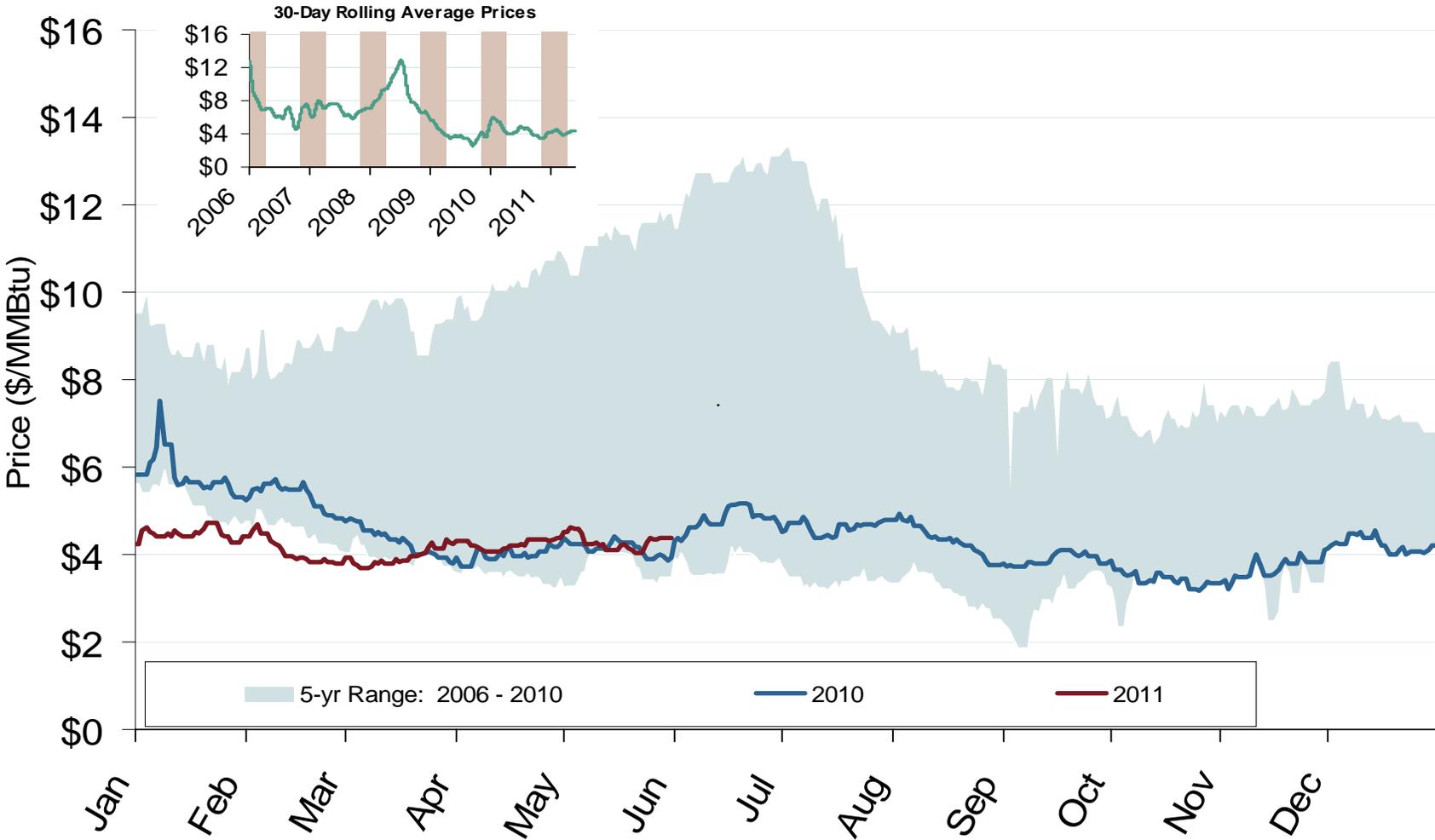


# Natural Gas and Fuel Markets

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

Federal Energy Regulatory Commission • Market Oversight • [www.ferc.gov/oversight](http://www.ferc.gov/oversight)

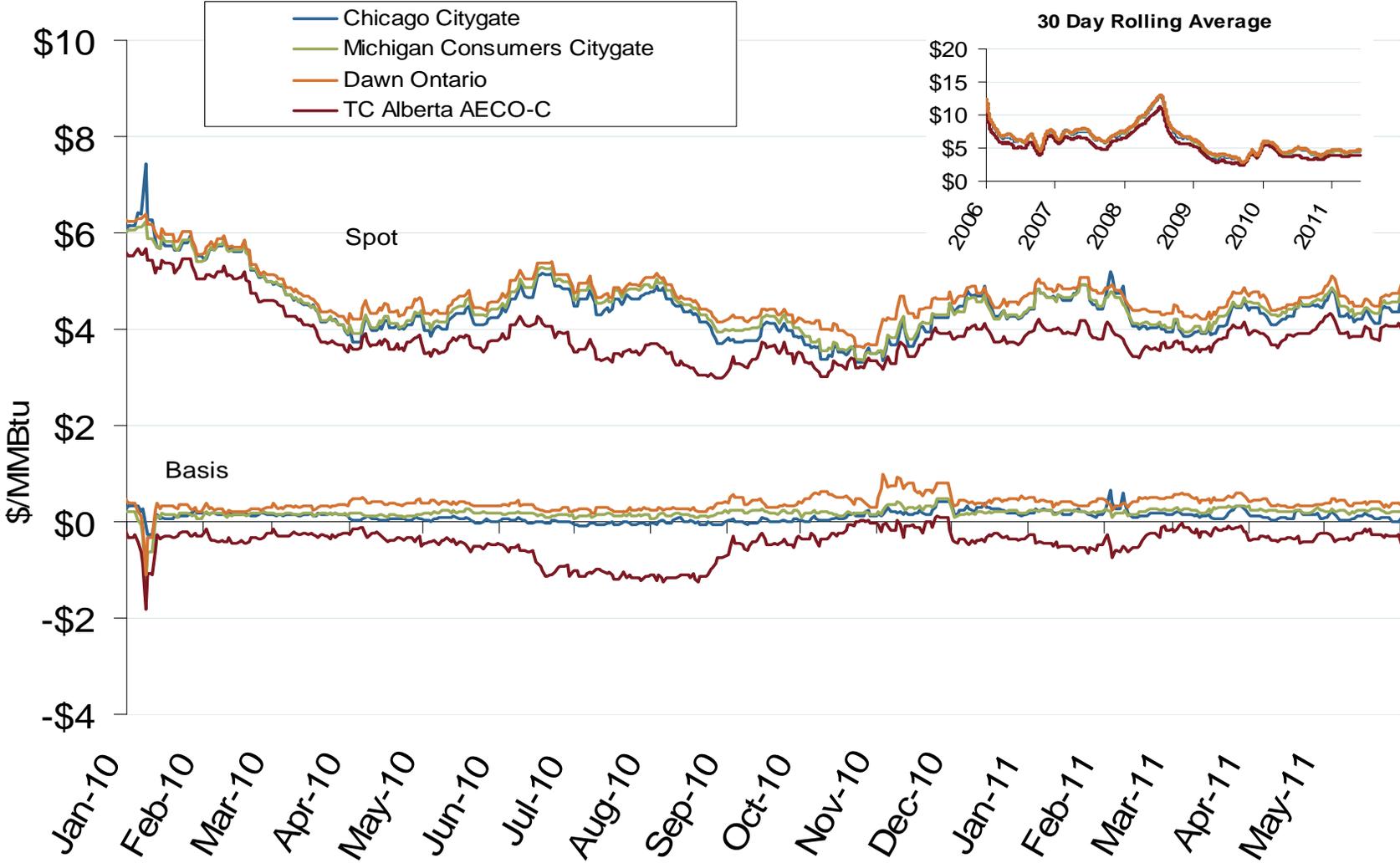
# Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data.

Updated June 3, 2011

# Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

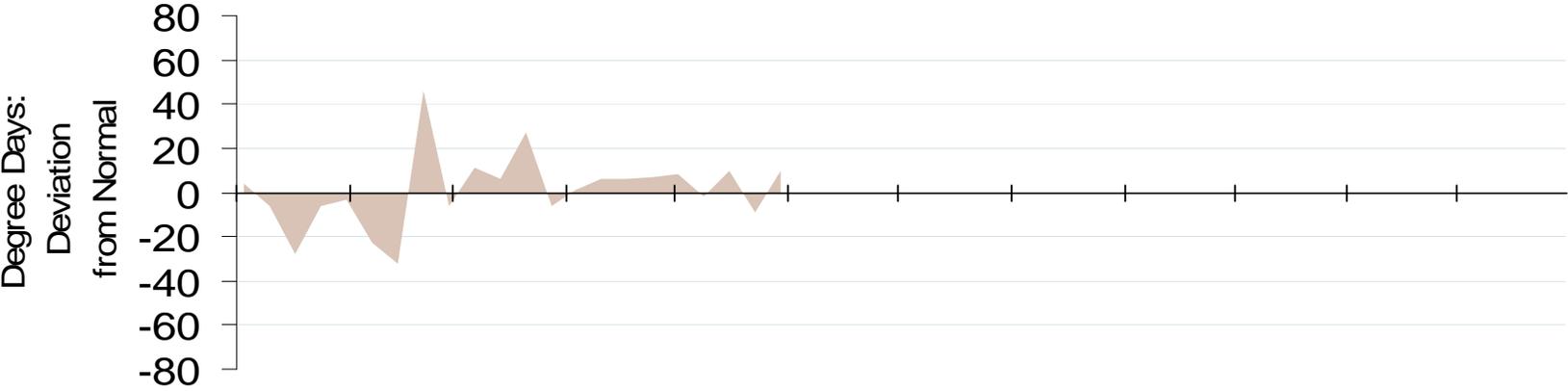
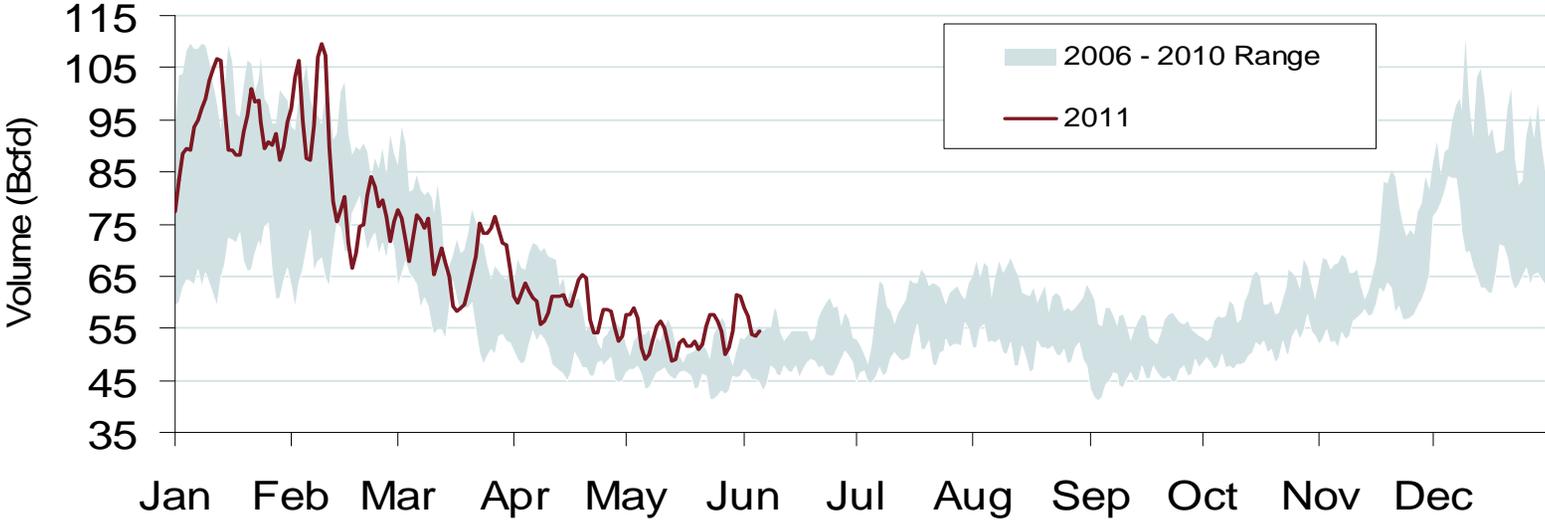
# Gulf Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

Updated June 3, 2011

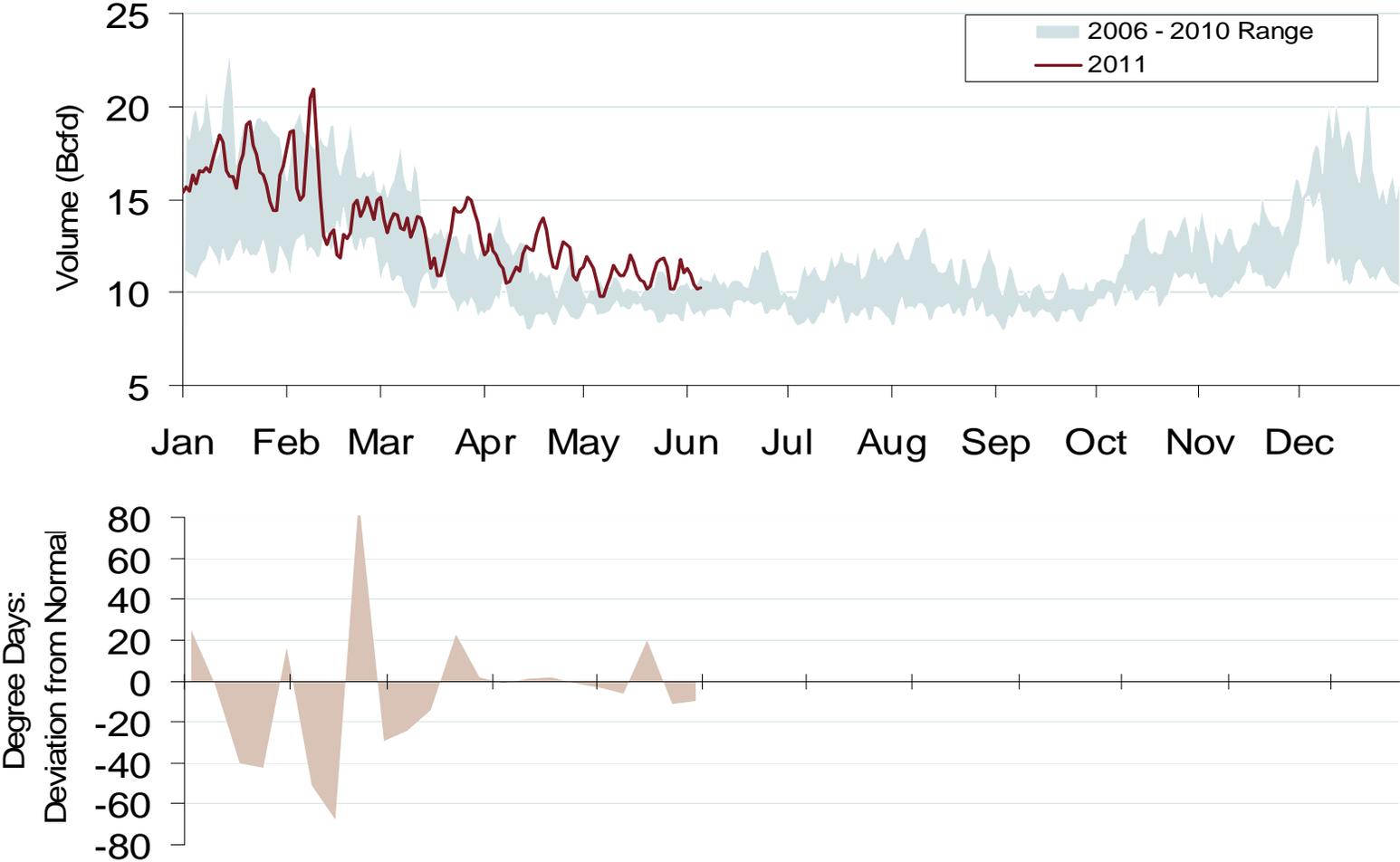
# Total U.S. Natural Gas Demand (All Sectors) and Temperatures



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

Updated June 3, 2011

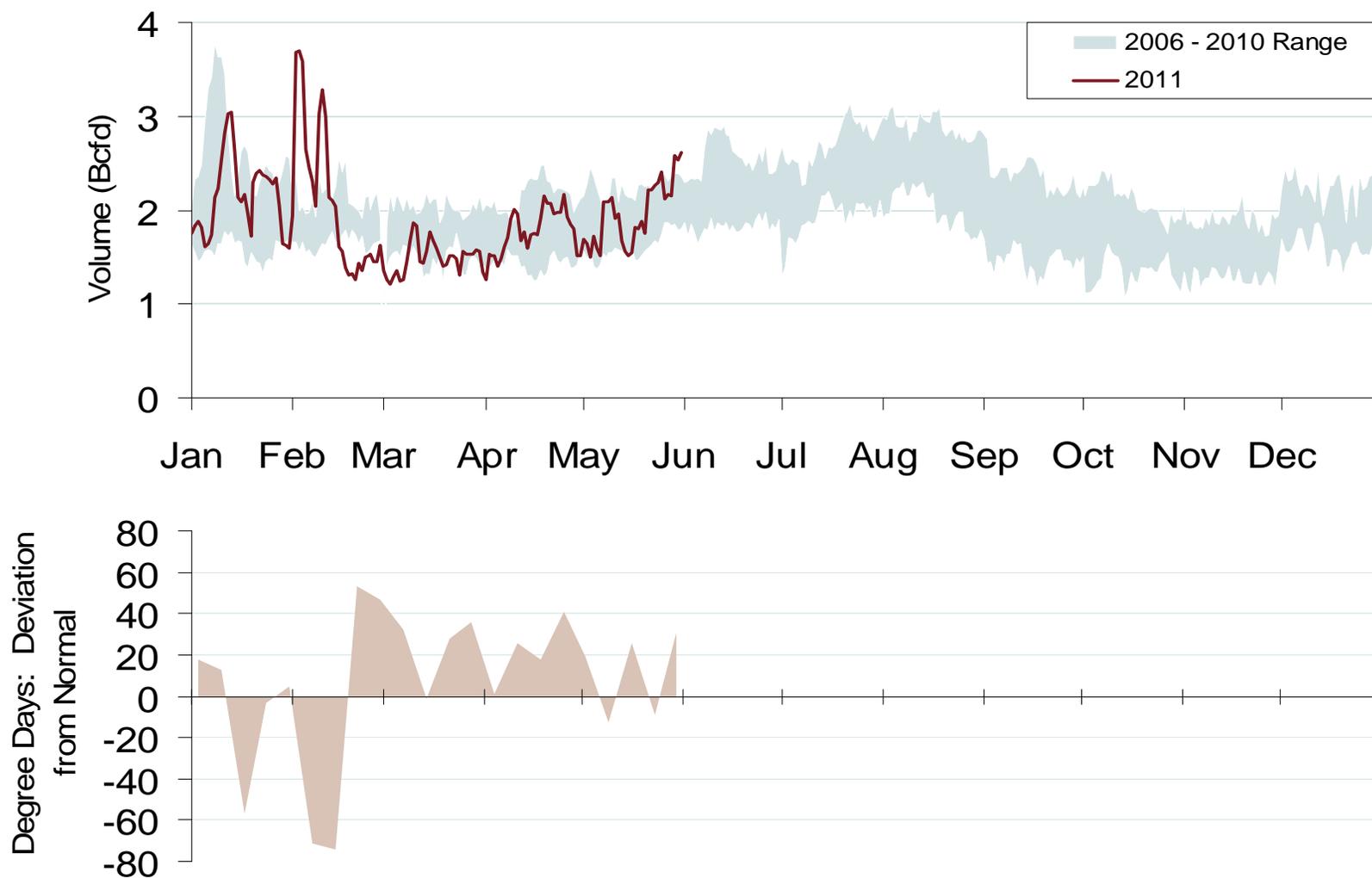
# Daily Midwest Natural Gas Demand All Sectors



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

Updated June 3, 2011

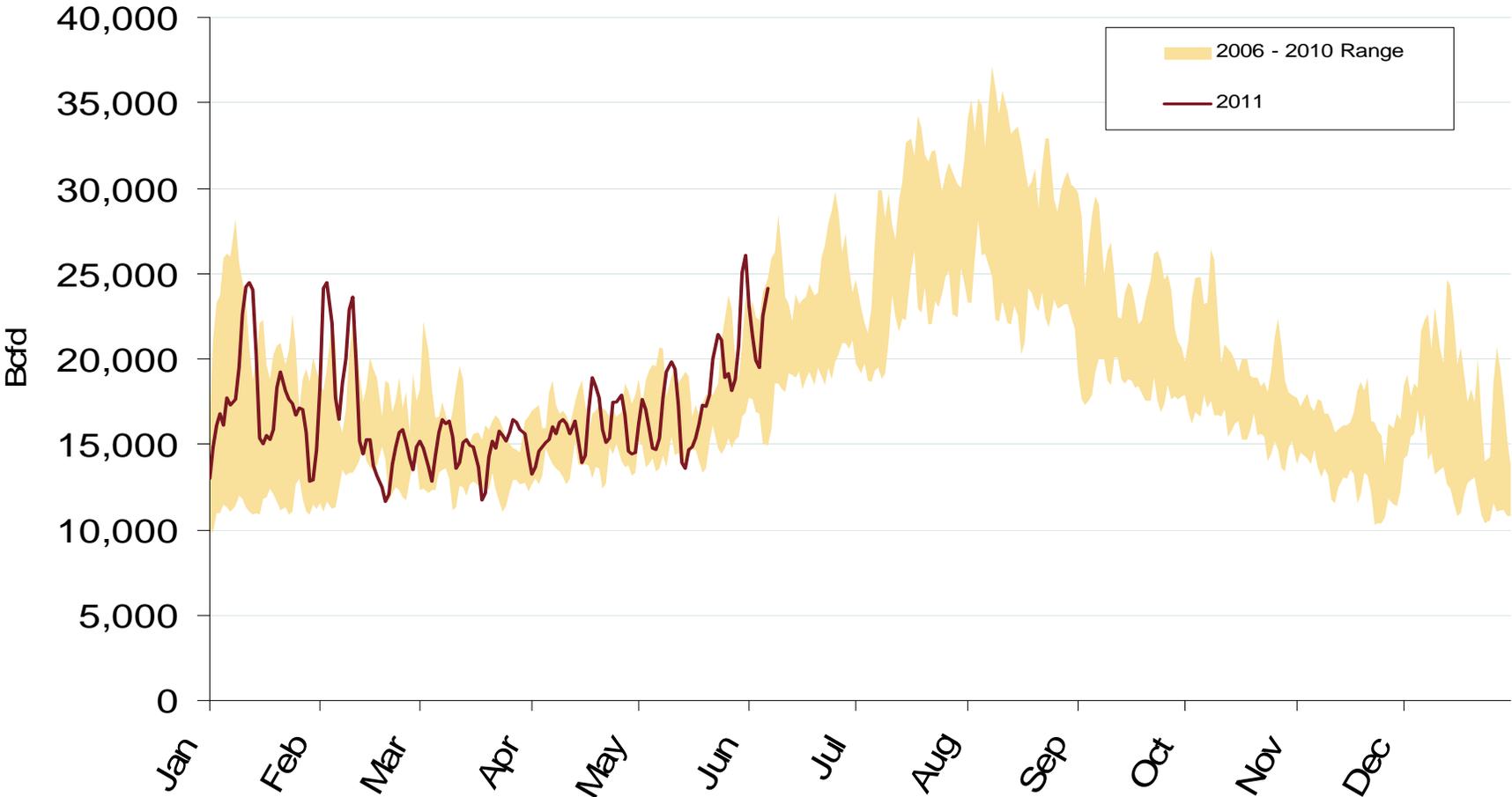
## Daily Gulf Natural Gas Demand All Sectors



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

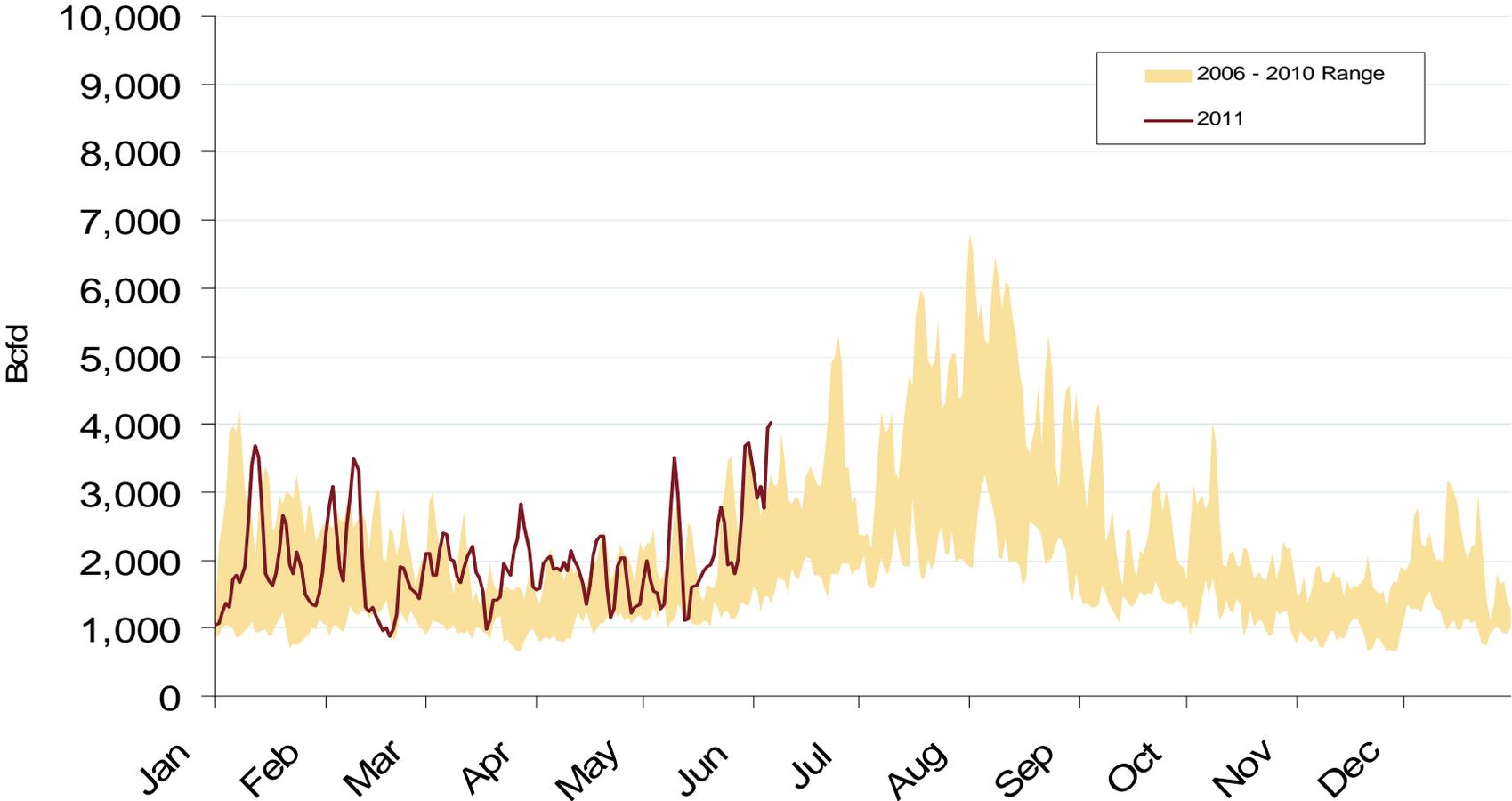
Updated June 3, 2011

# U.S. Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

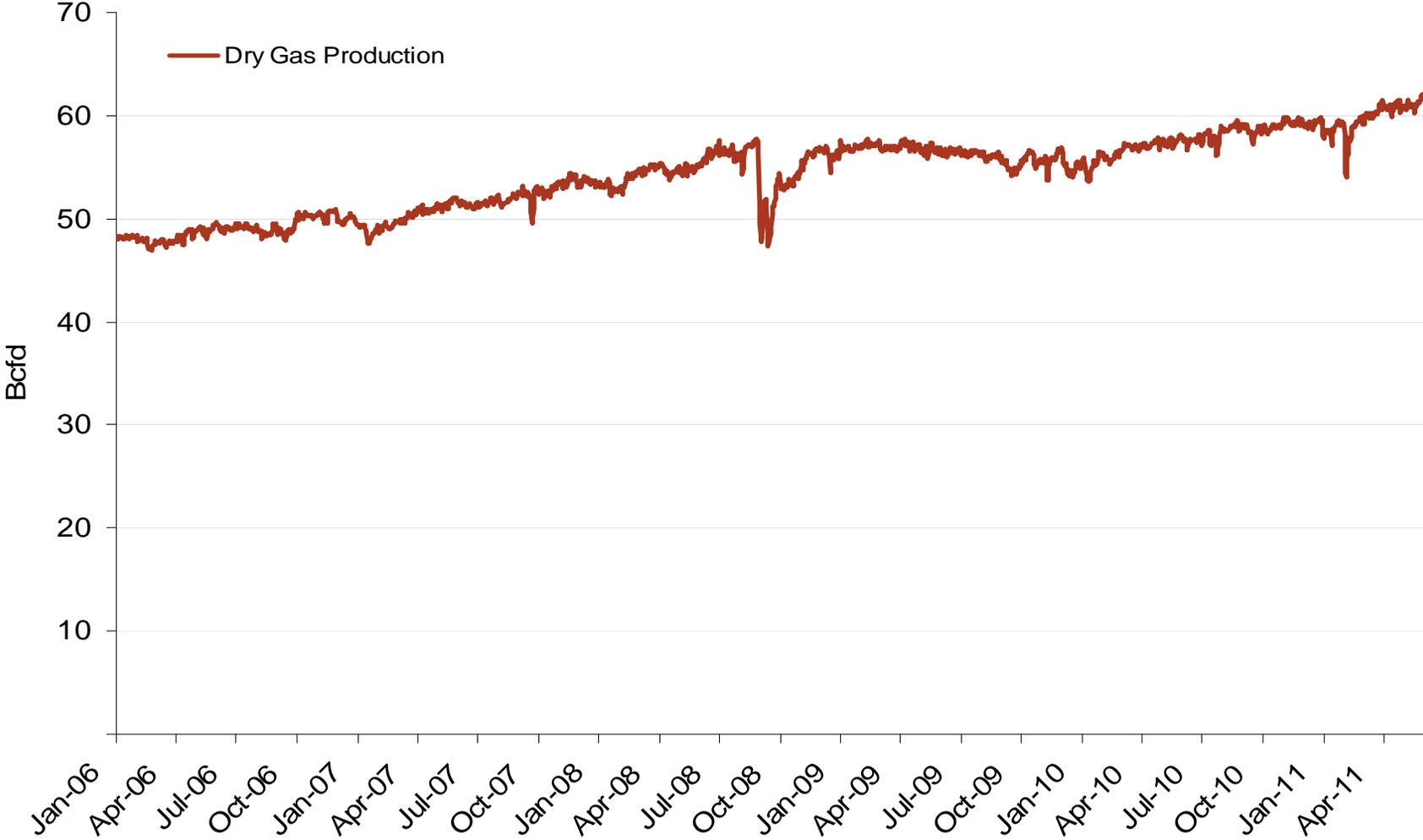
# Midwest Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

Updated June 3, 2011

# U.S. Dry Gas Production

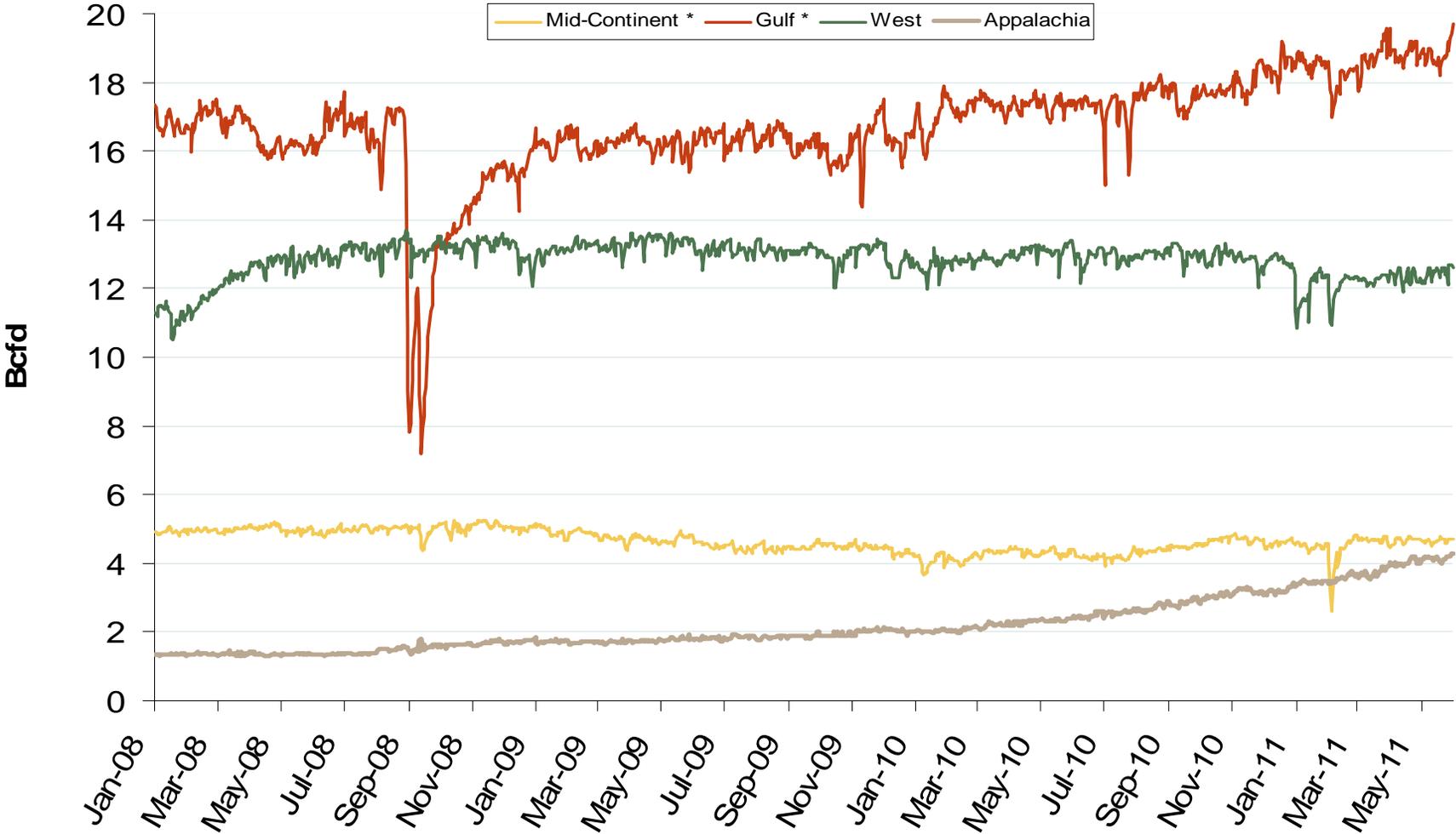


Source: Derived from *EIA and Bentek data*.  
June 2011 Midwest Snapshot Report

Updated June 3, 2011

20021

# Regional Natural Gas Production



Source: Derived from Bentek data.

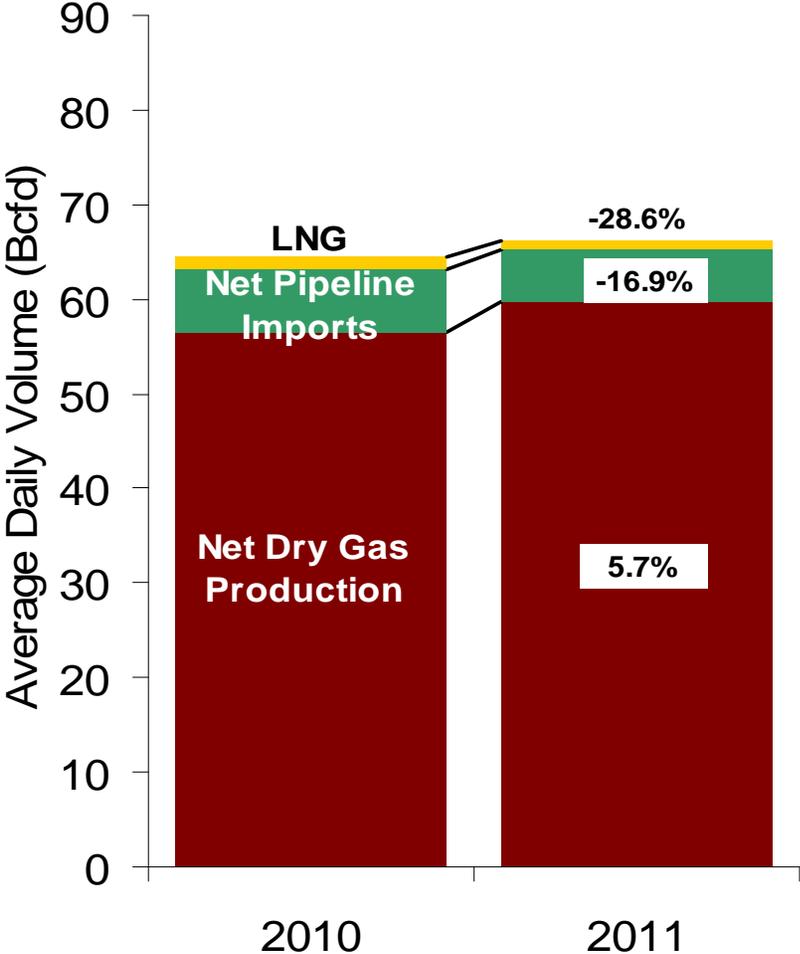
\* On July 1, 2009 Bentek redefined its regions, moving some of the southern Midcontinent production to the Southeast, which is included in Gulf series.

Updated June 3, 2011

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

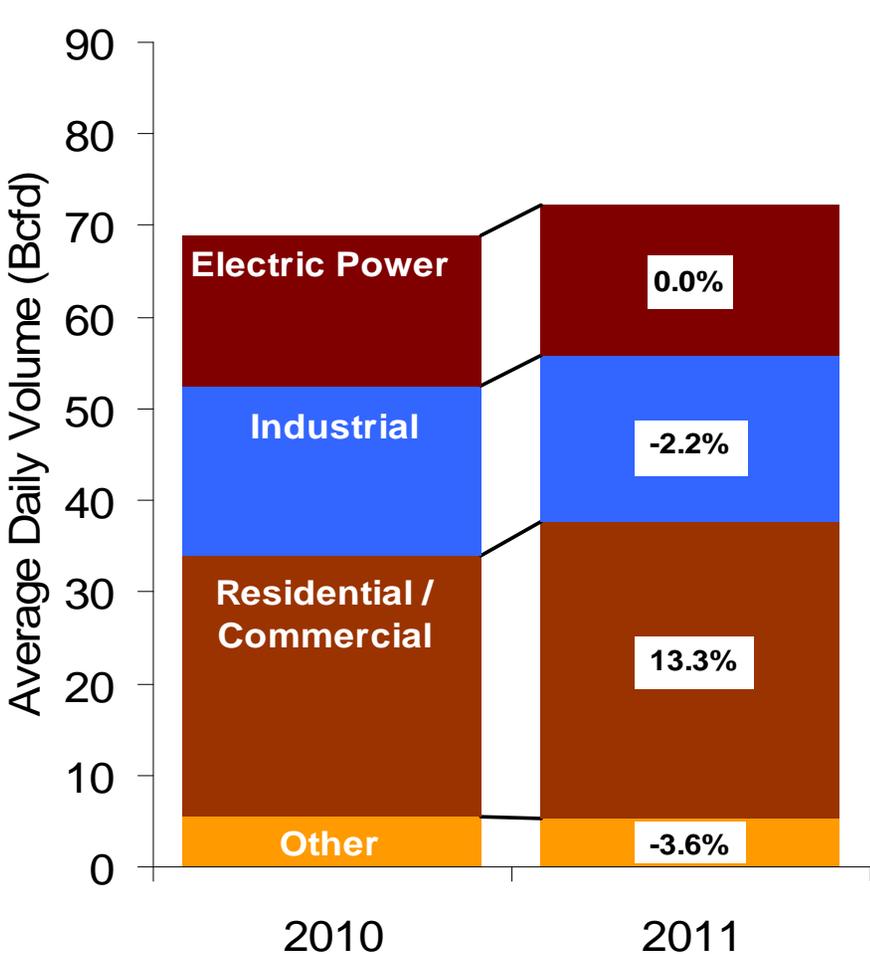
## US Natural Gas Supply

Total Change in Supply 3.4%



## US Natural Gas Demand

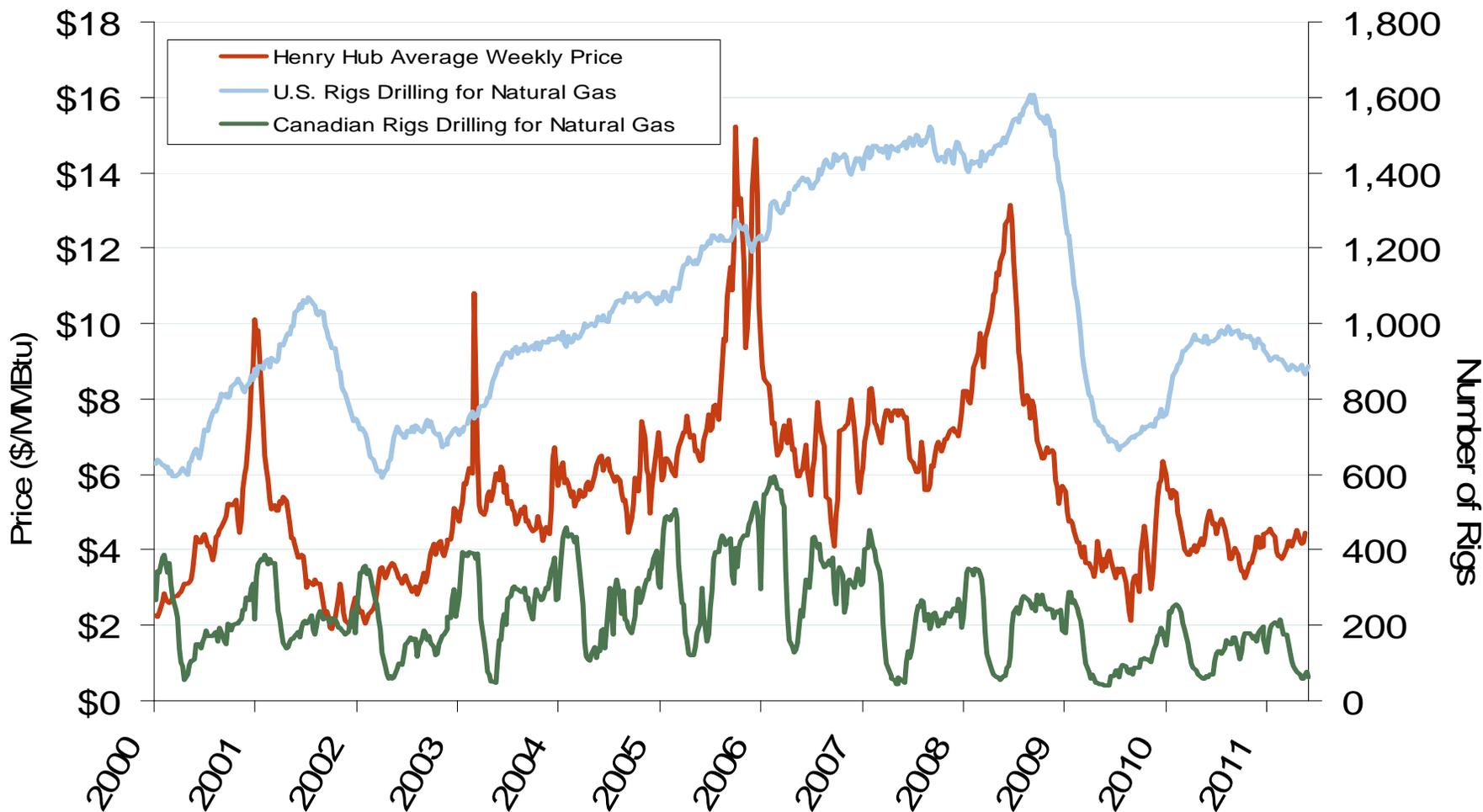
Total Change in Demand 4.6%



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

Updated June 3, 2011

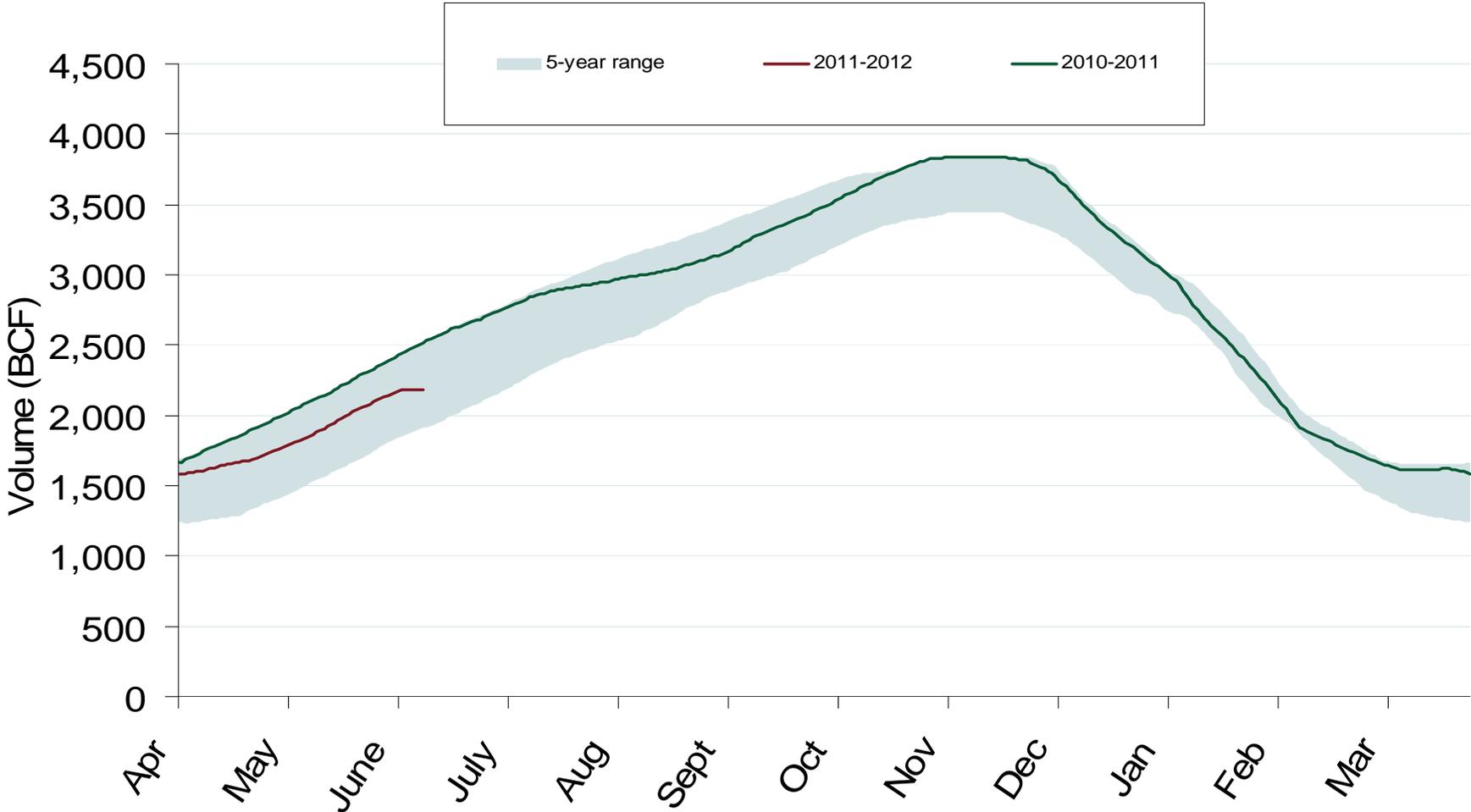
# U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

Updated June 3, 2011

# Total U.S. Working Gas in Storage

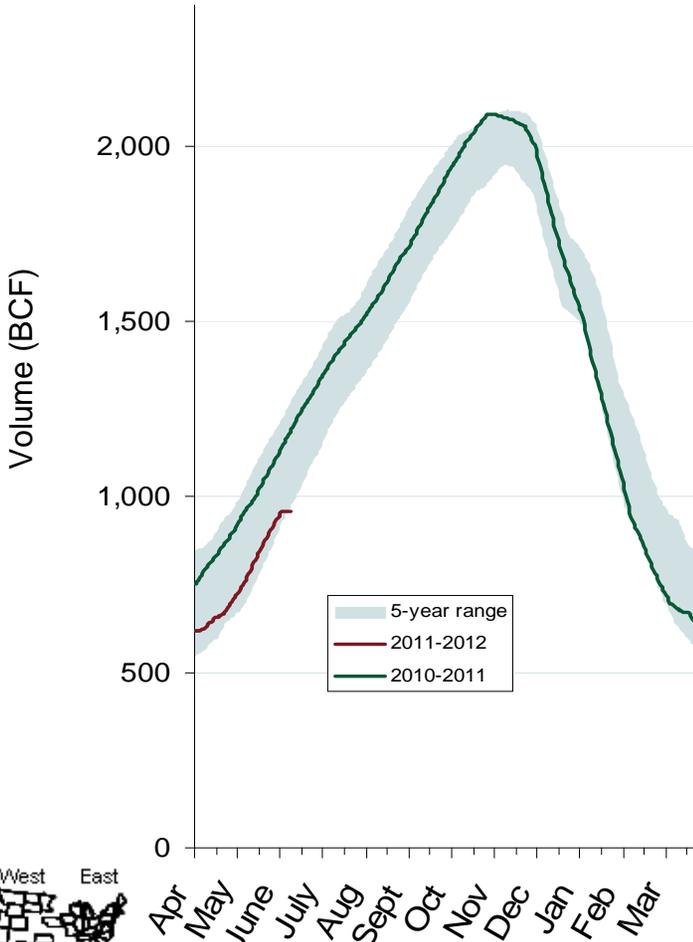


Source: Derived from EIA data.  
June 2011 Midwest Snapshot Report

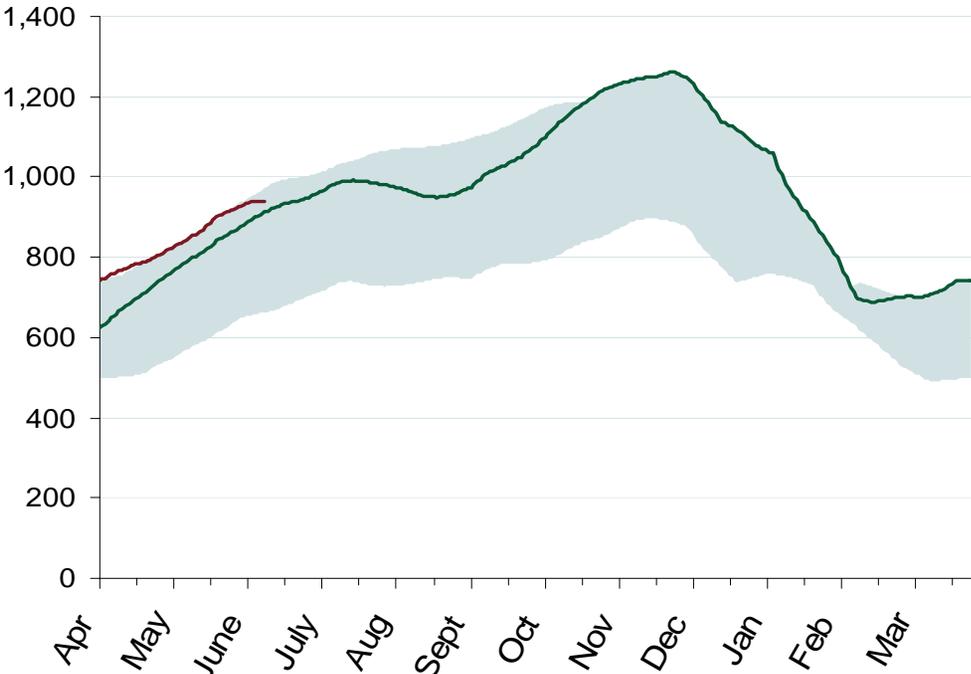
Updated June 3, 2011

# Regional Totals of Working Gas in Storage

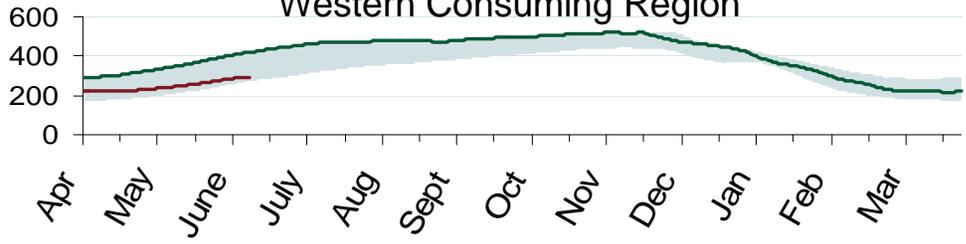
### Eastern Consuming Region



### Producing Region



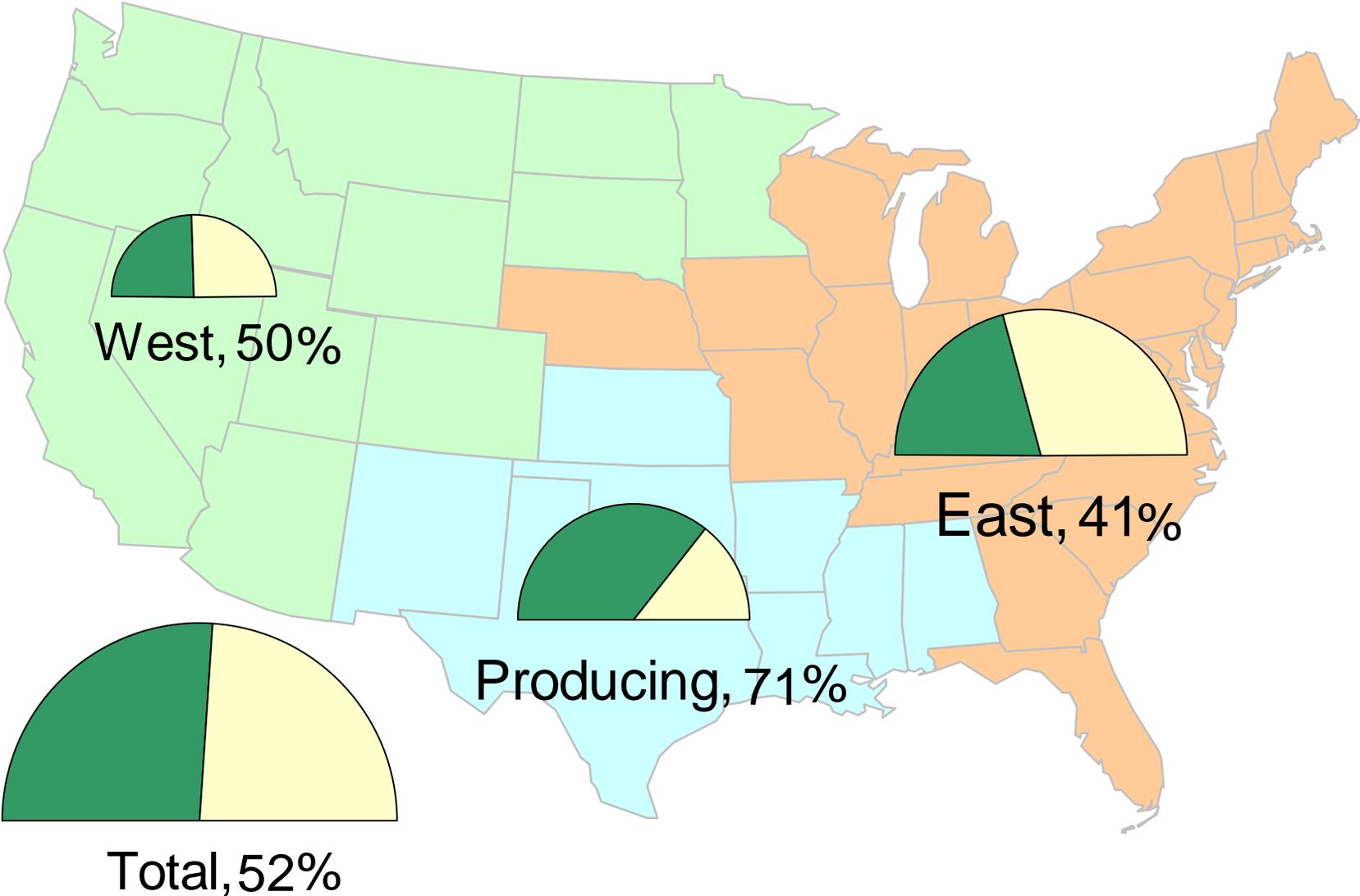
### Western Consuming Region



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

Updated June 3, 2011

# Natural Gas Storage Inventories – May 27, 2011

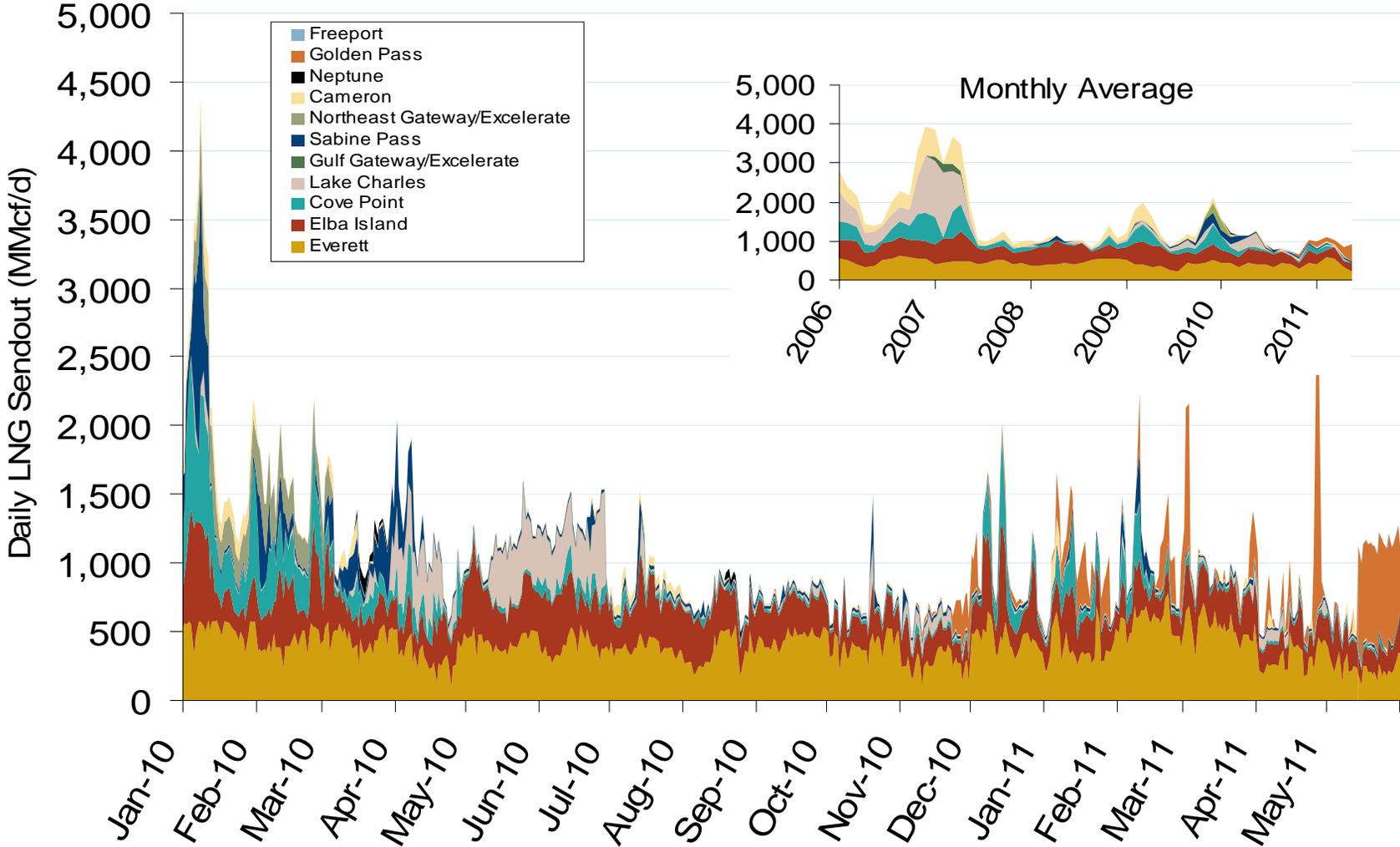


Source: Derived from EIA Storage and Estimated Working Gas Capacity data.  
June 2011 Midwest Snapshot Report

## 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

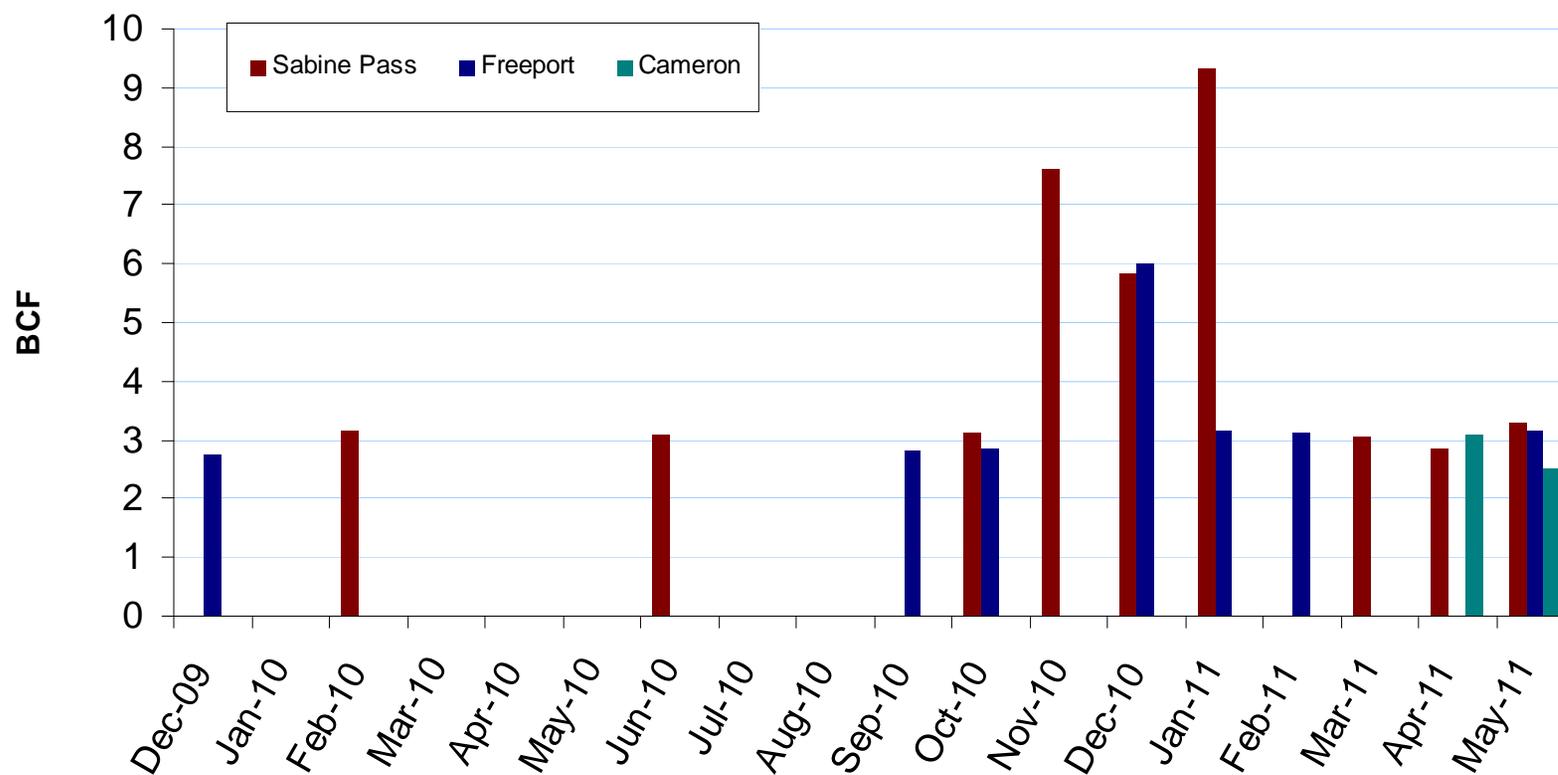
### Re-Exports

- 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

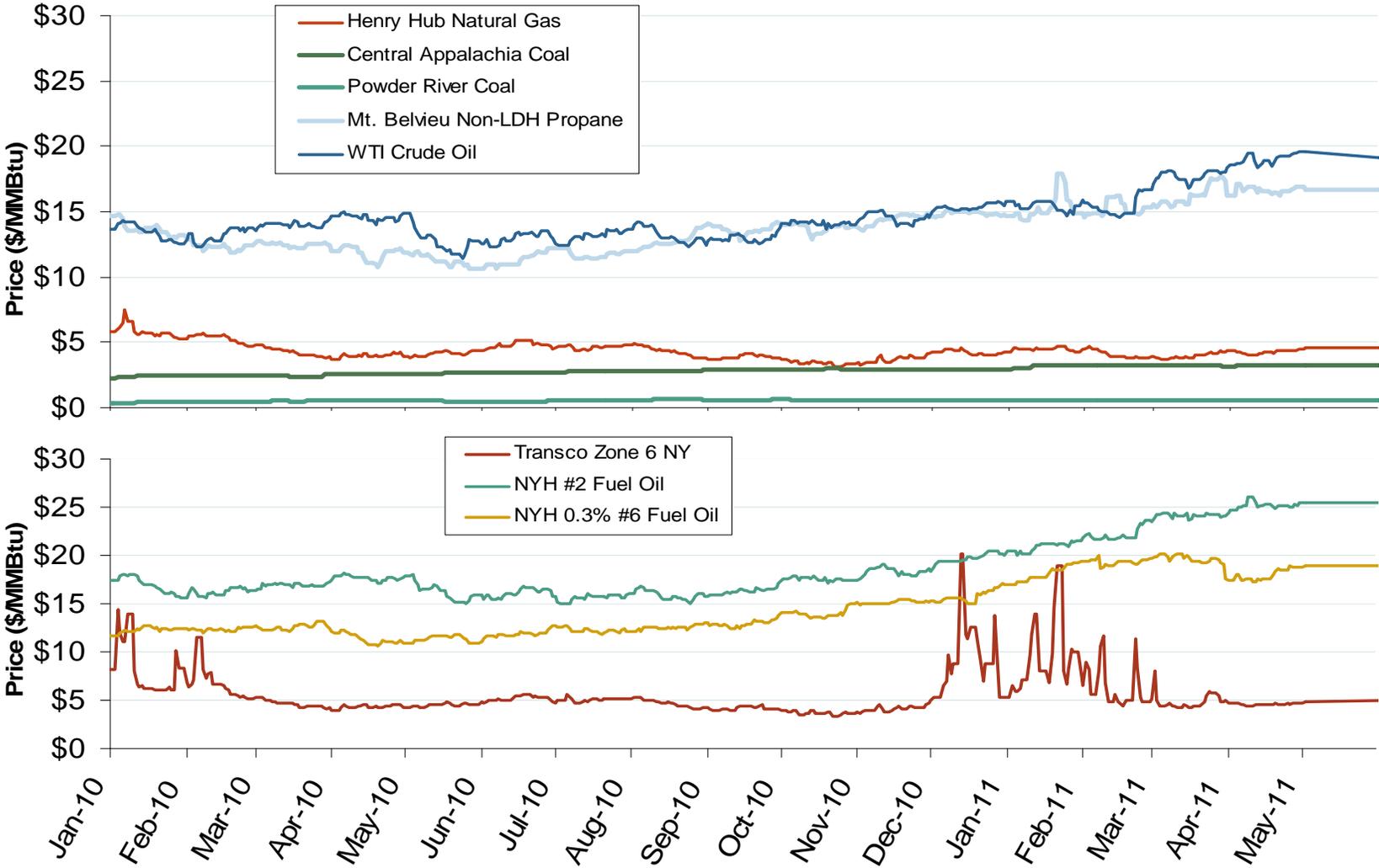
### Exports

- 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

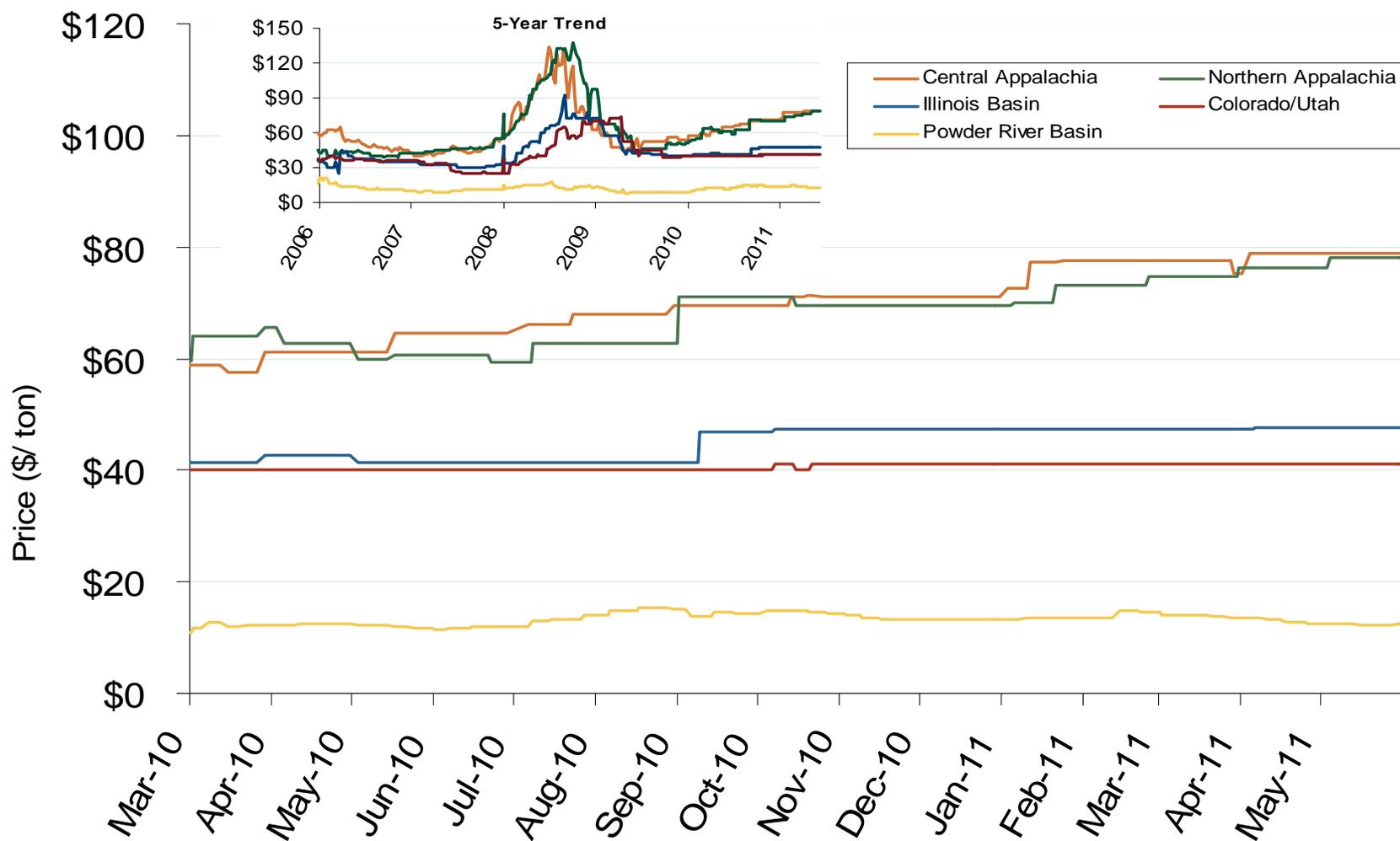


Source: Derived from ICE and Bloomberg data.

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.

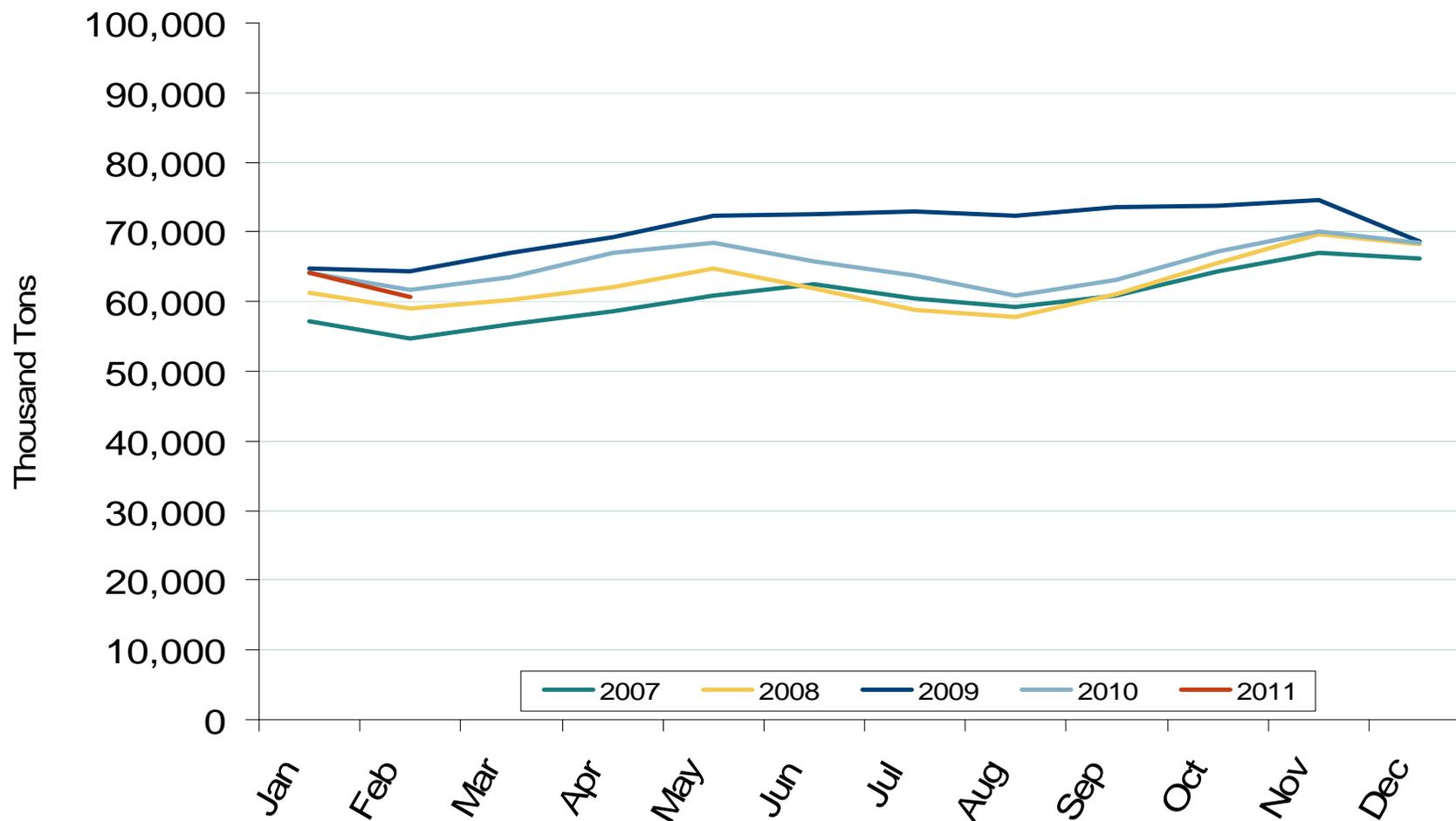
Updated June 3, 2011

## 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.

## Midwest Coal Stockpiles at Electric Power Generating Facilities



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

Updated June 3, 2011