

# **OE ENERGY MARKET SNAPSHOT**

## **Midwest States Version – March 2012 Data**

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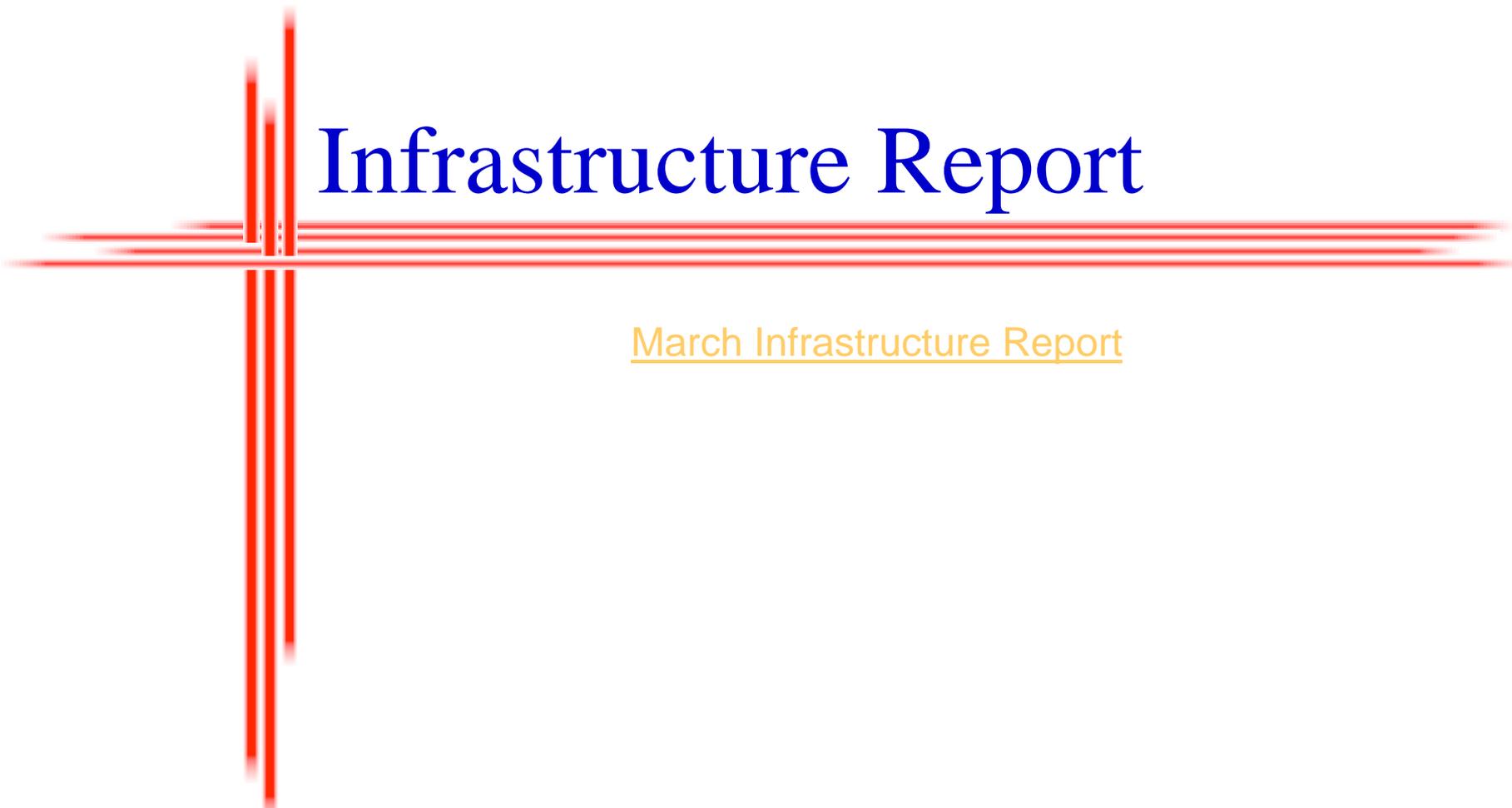
Office of Enforcement  
Federal Energy Regulatory Commission  
April 2012



# 2011 State of the Markets

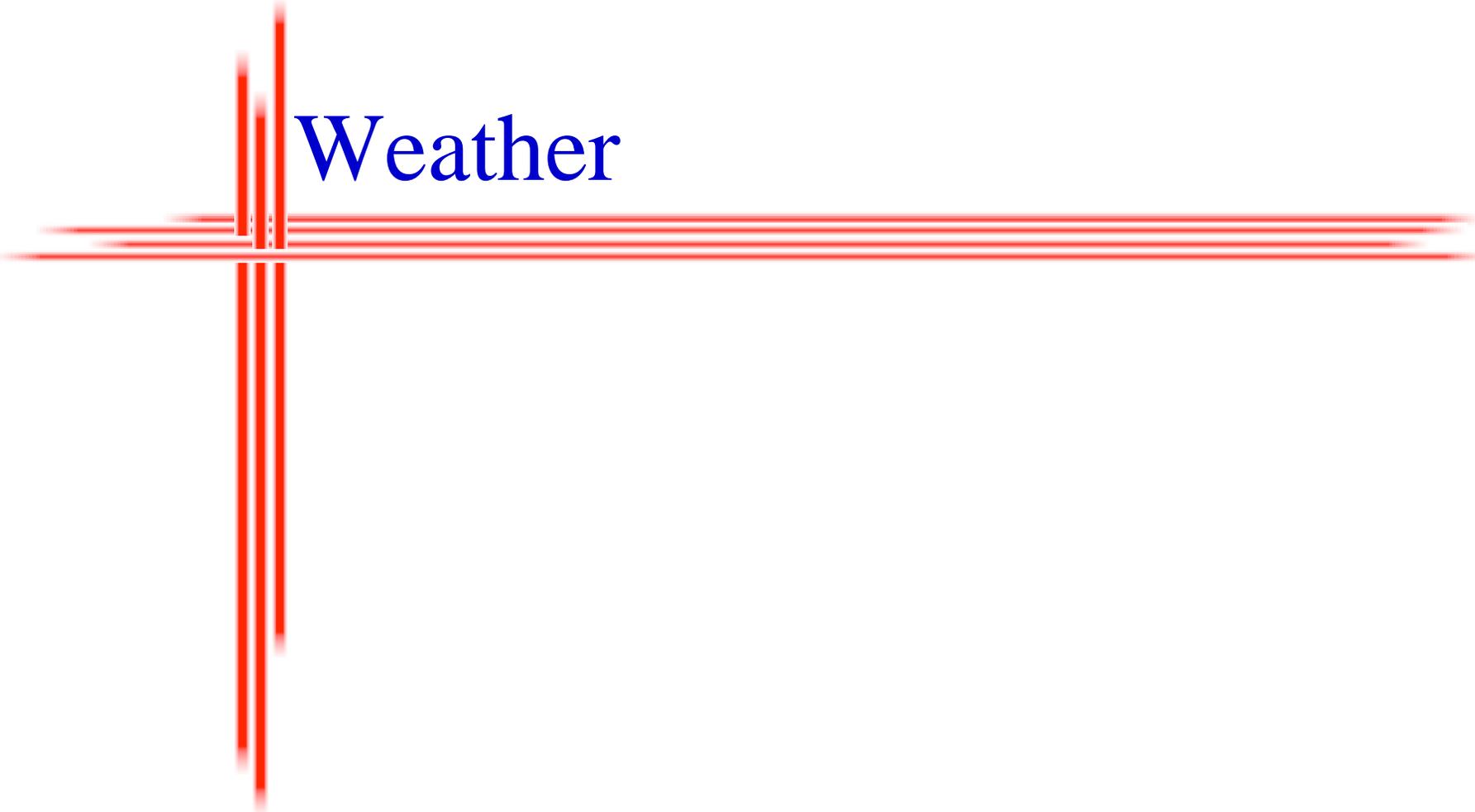
**Item No: A-3**  
**April 19, 2012**

<http://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/som-rpt-2011.pdf>



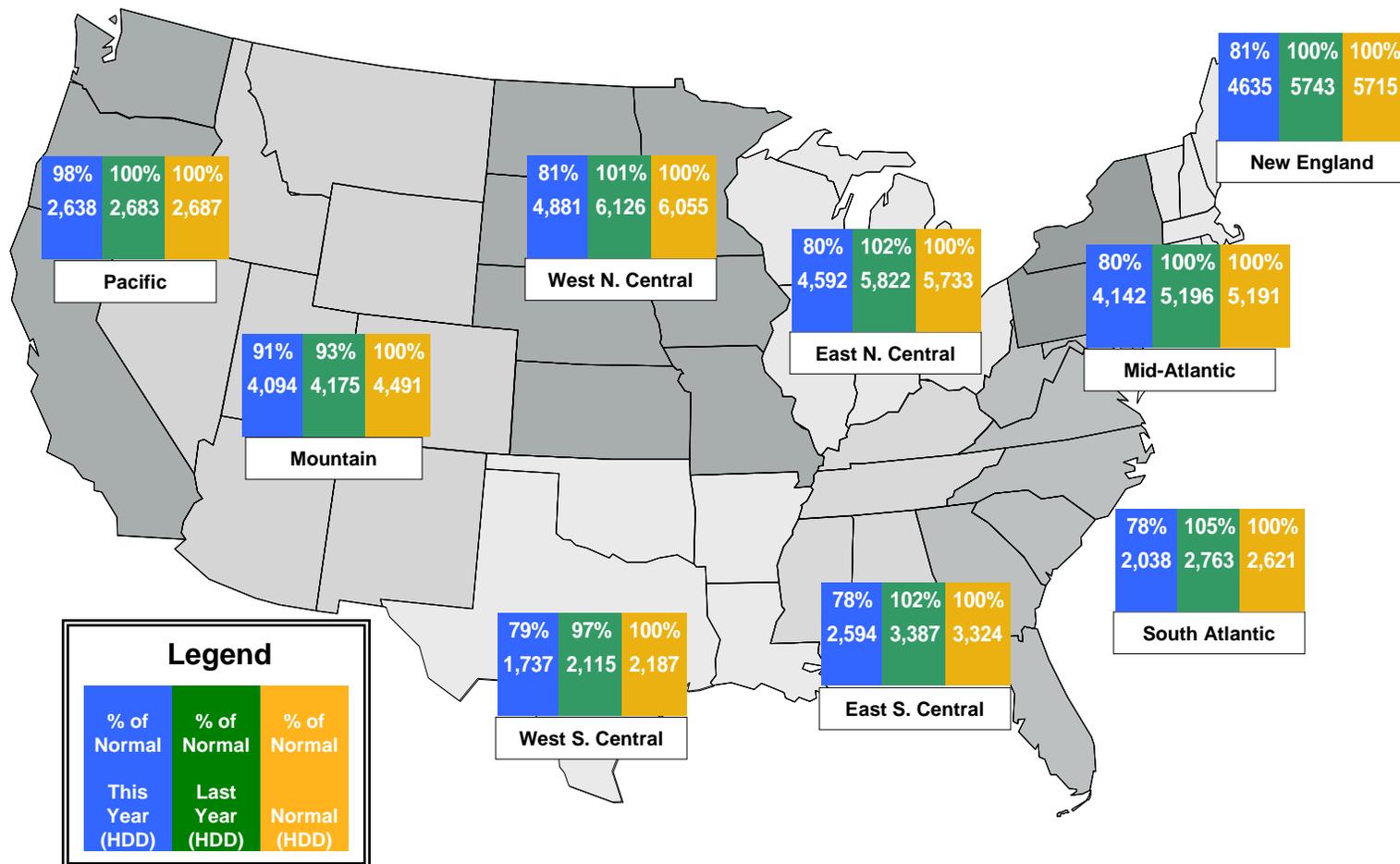
# Infrastructure Report

March Infrastructure Report



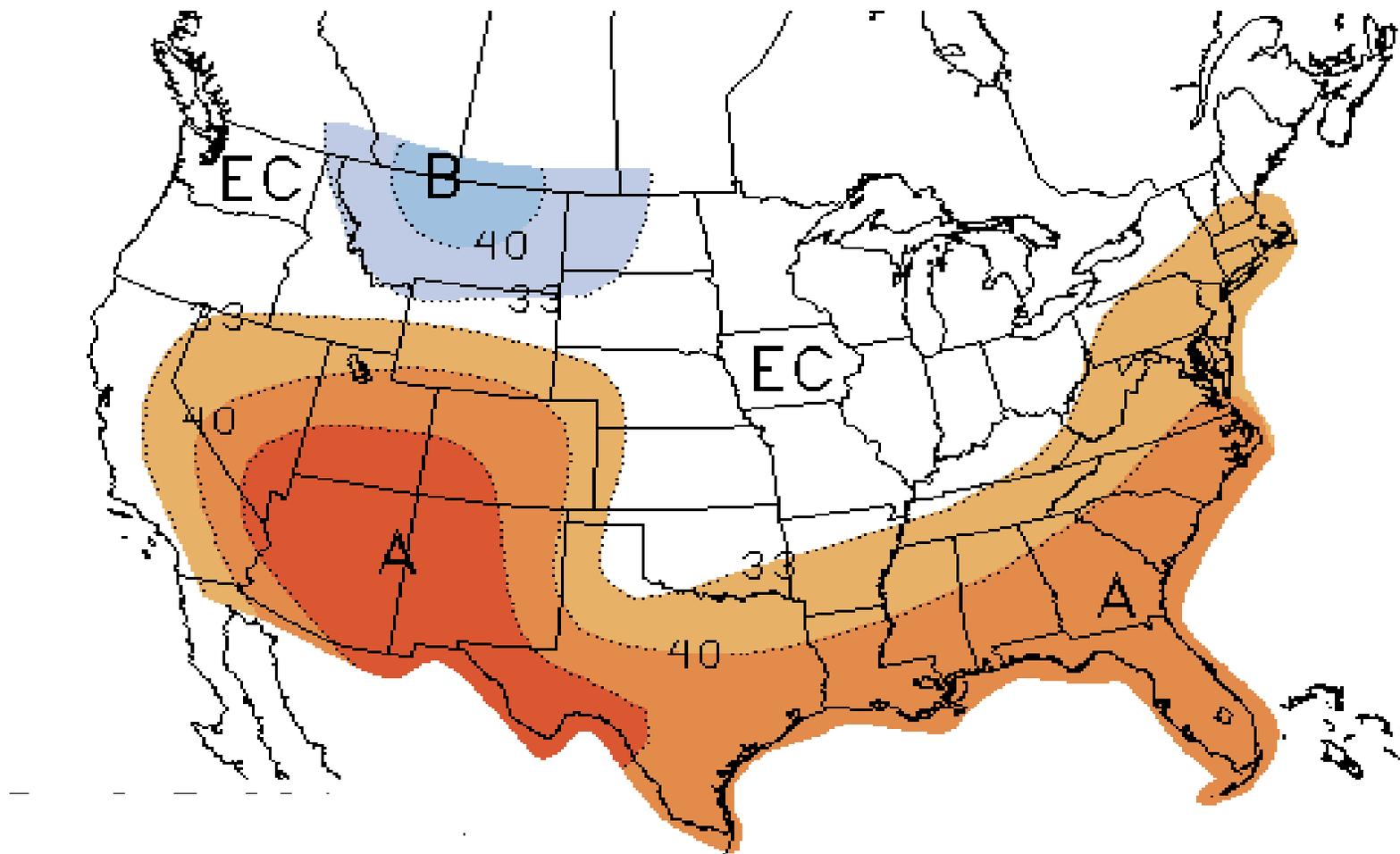
# Weather

## Regional Heating Degree Days – July 2011 to March 2012



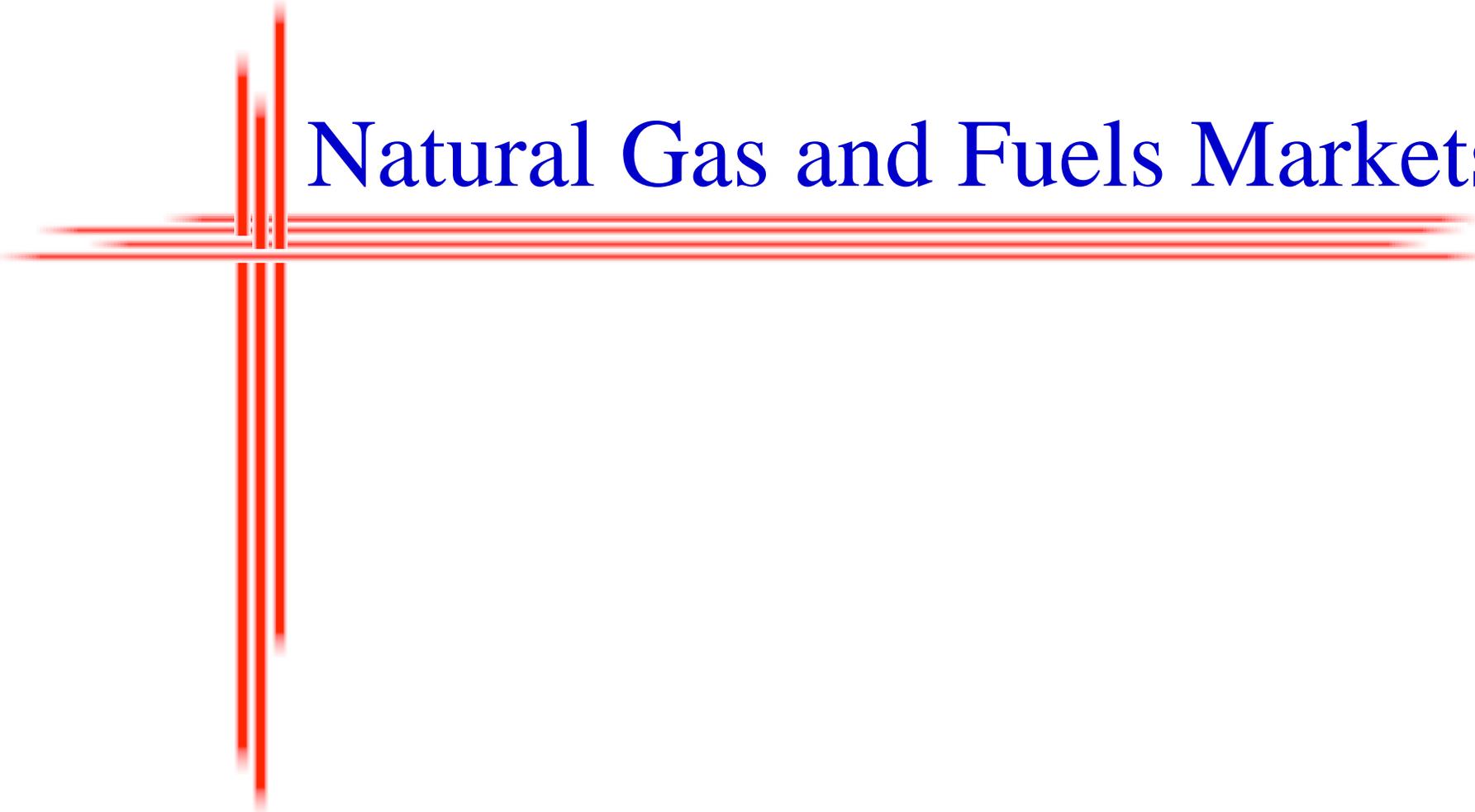
Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.

## NOAA's 3 Month Temperature Forecast Made April 19, 2012, Valid for May 2012 – July 2012



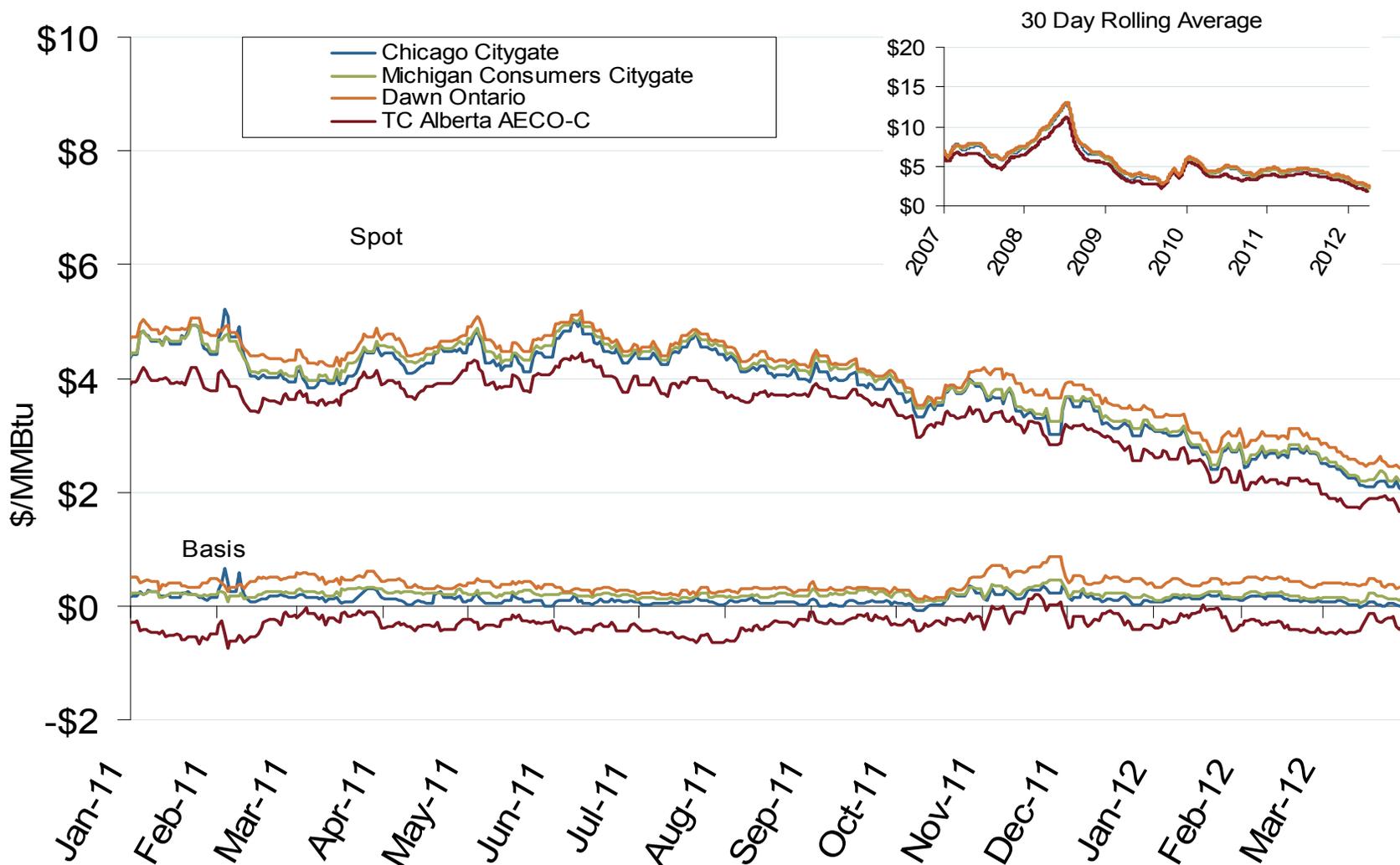
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.  
Source: Derived from NOAA data.

Updated: April 19, 2012



# Natural Gas and Fuels Markets

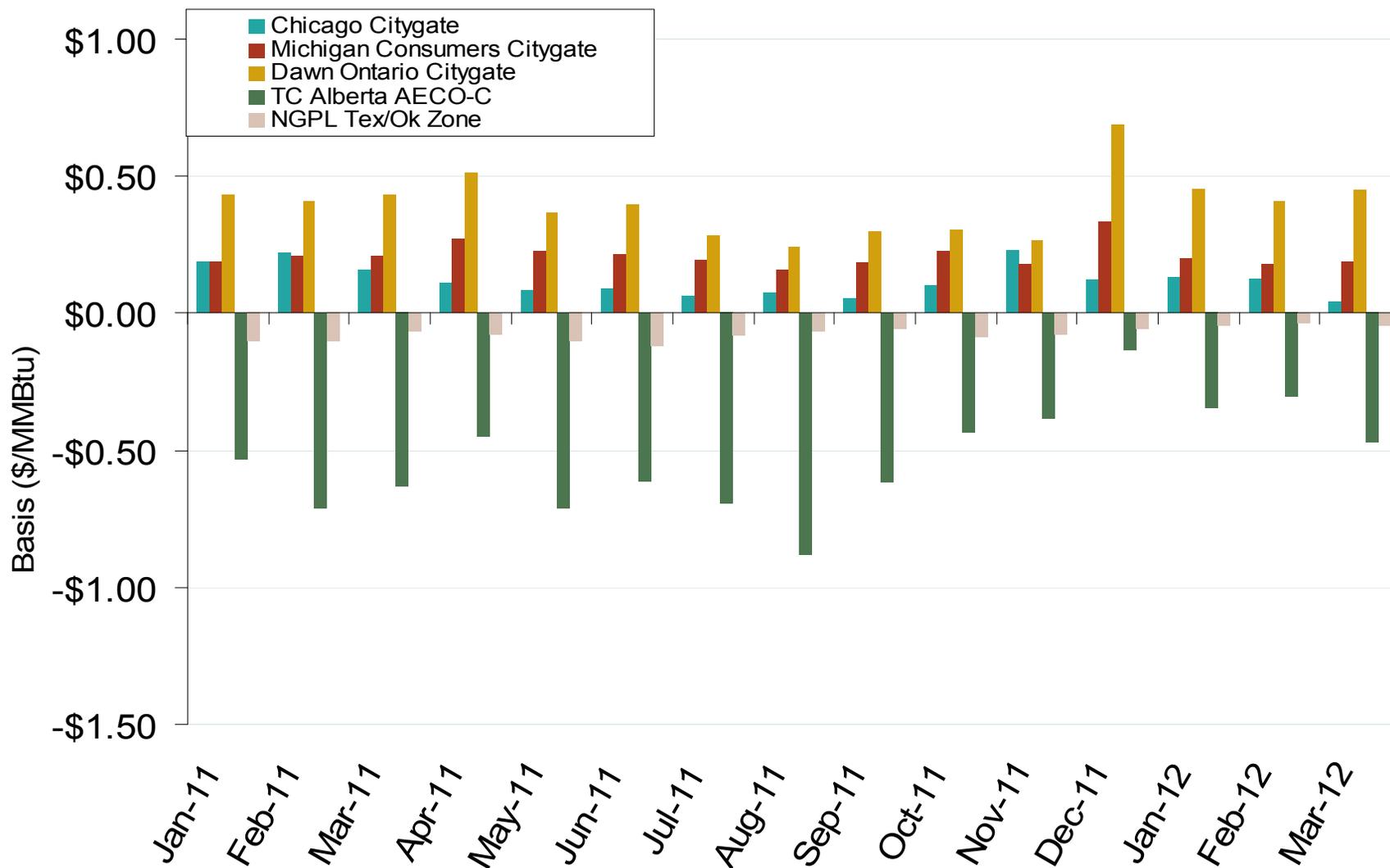
## Midwestern Day-Ahead Hub Spot Prices and Basis



Midwest Natural Gas Market: Average Basis to Henry Hub

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

### Midwestern Monthly Average Basis Value to Henry Hub

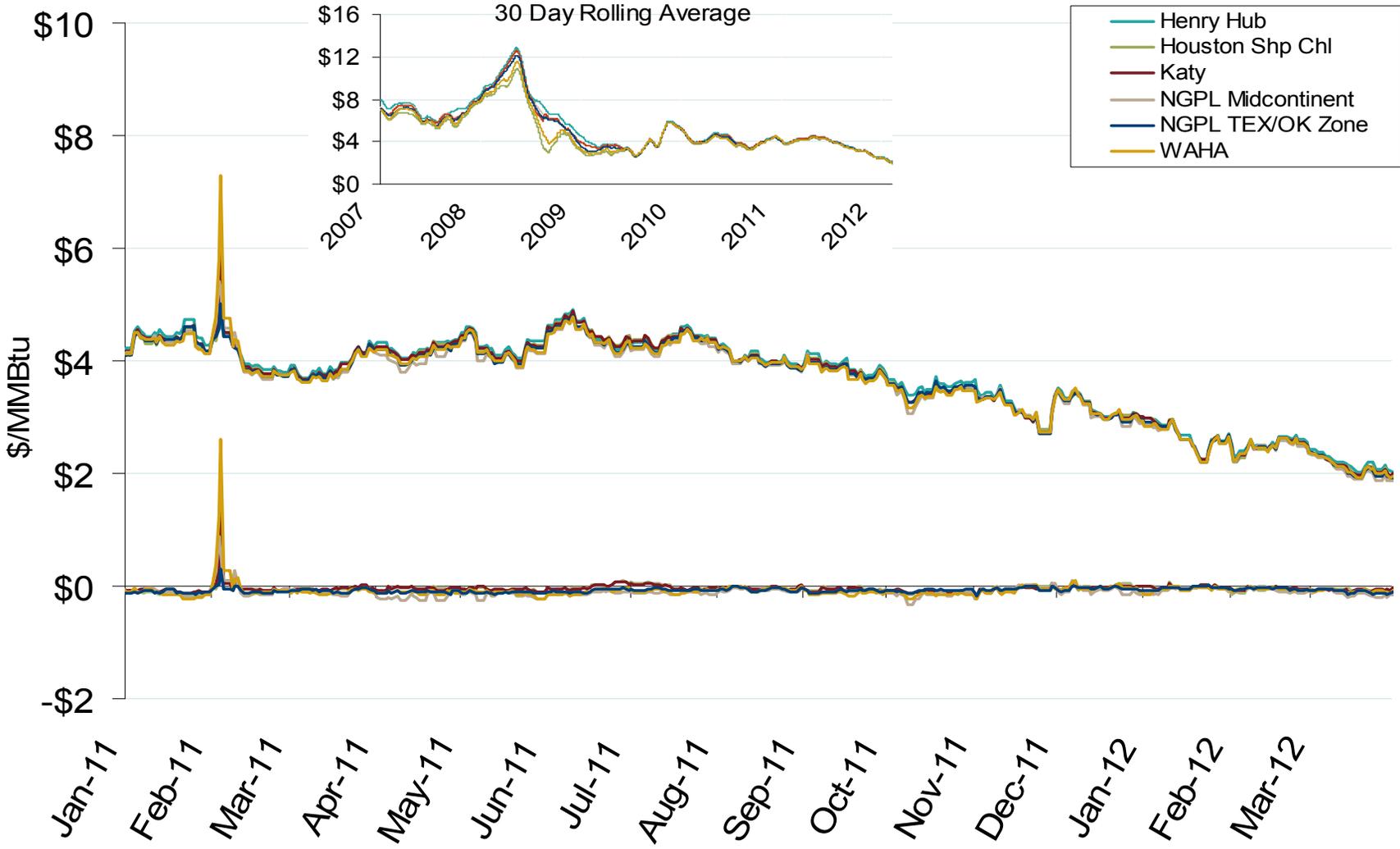


Source: Derived from Platts data  
 April 2012 Midwest Snapshot Report

Updated: April 06, 2012

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

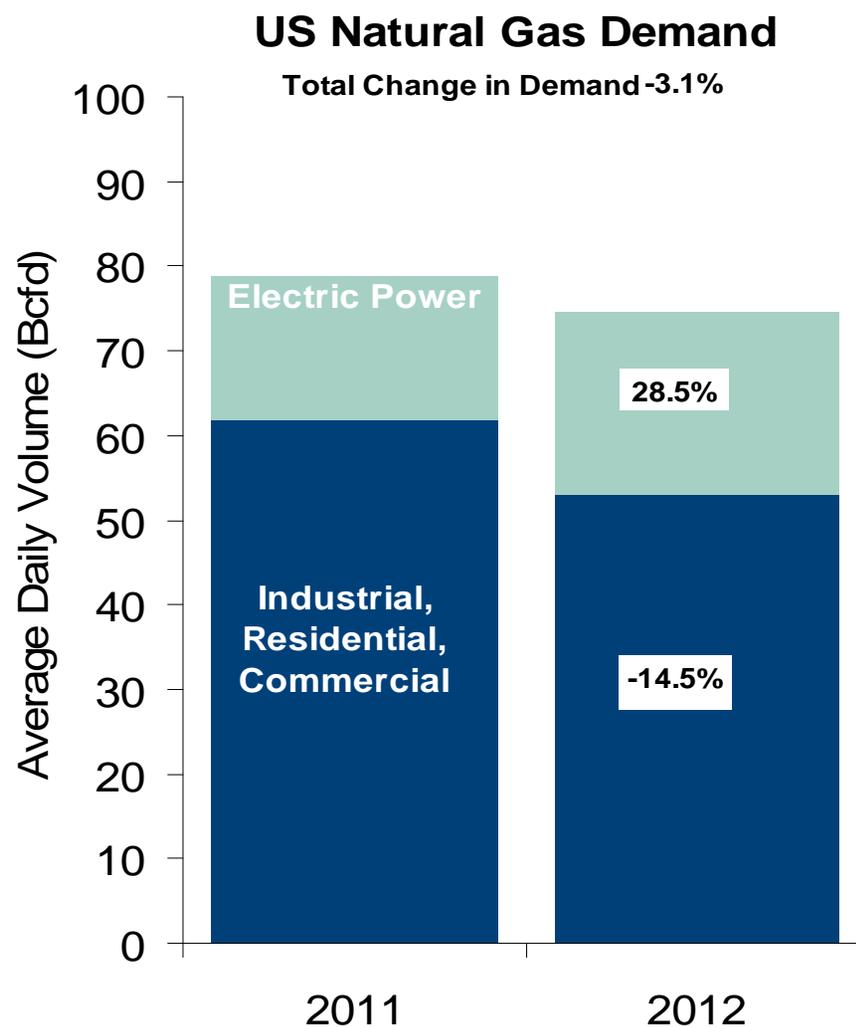
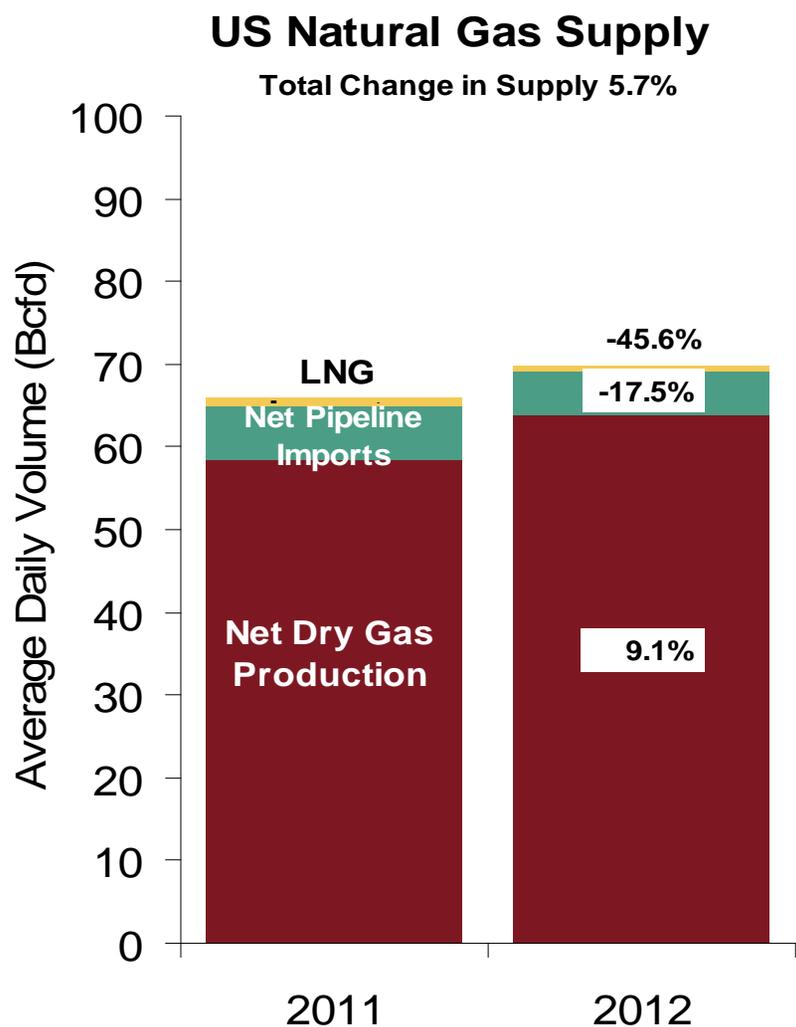
### Gulf Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

## U.S. NG Supply and Demand 2011 vs. 2012: January - March



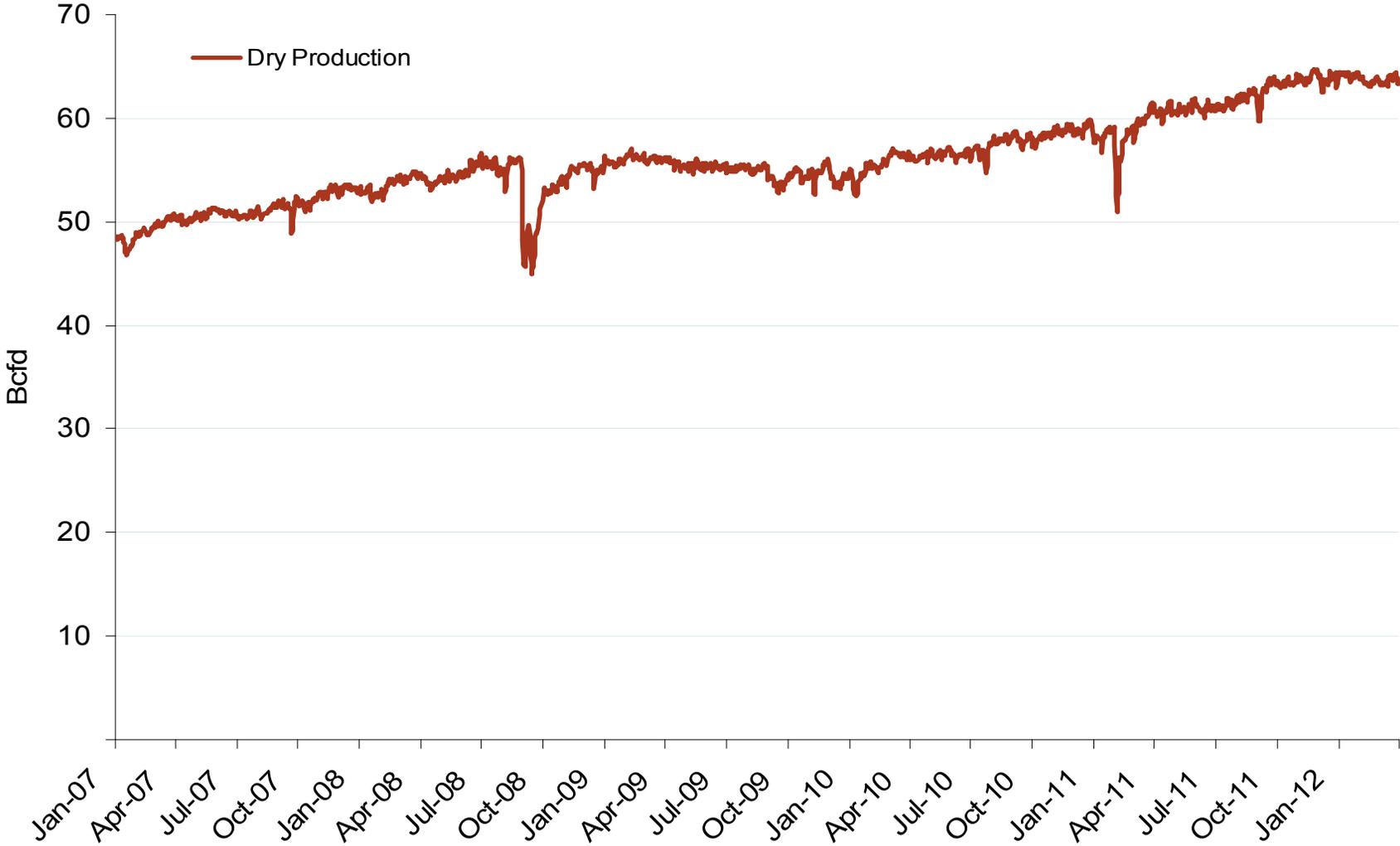
Note: Balance includes all amounts not attributable to other categories.

Source: Derived from *Bentek Energy* data

April 2012 Midwest Snapshot Report

Updated: April 17, 2012

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



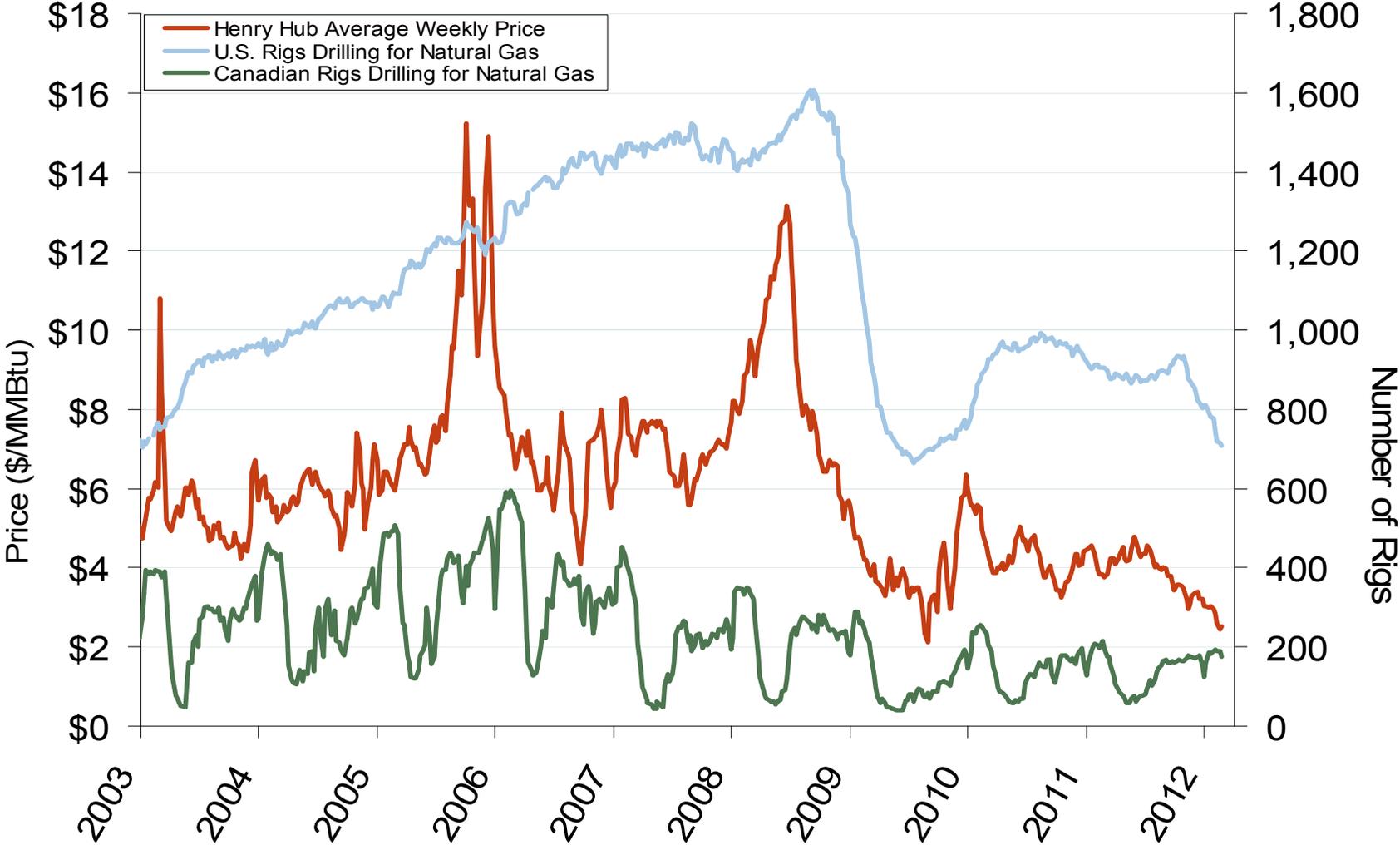
Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek Energy data

Source: Derived from Bentek Energy data

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Updated: April 17, 2012

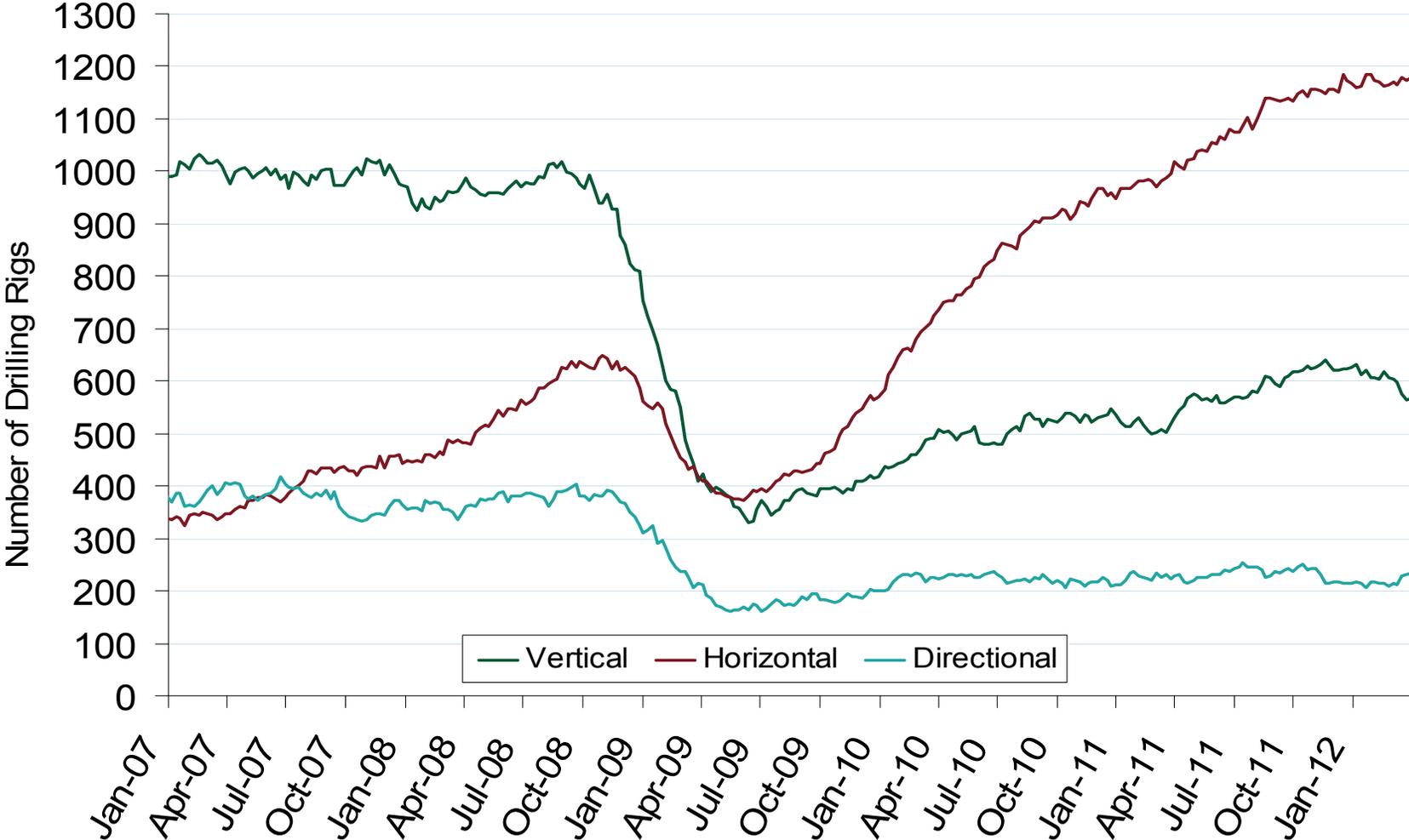
# U.S. and Canadian NG Drilling Rig Count and Daily Spot Prices



Source: Derived from *Platts* and *Baker Hughes* data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

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



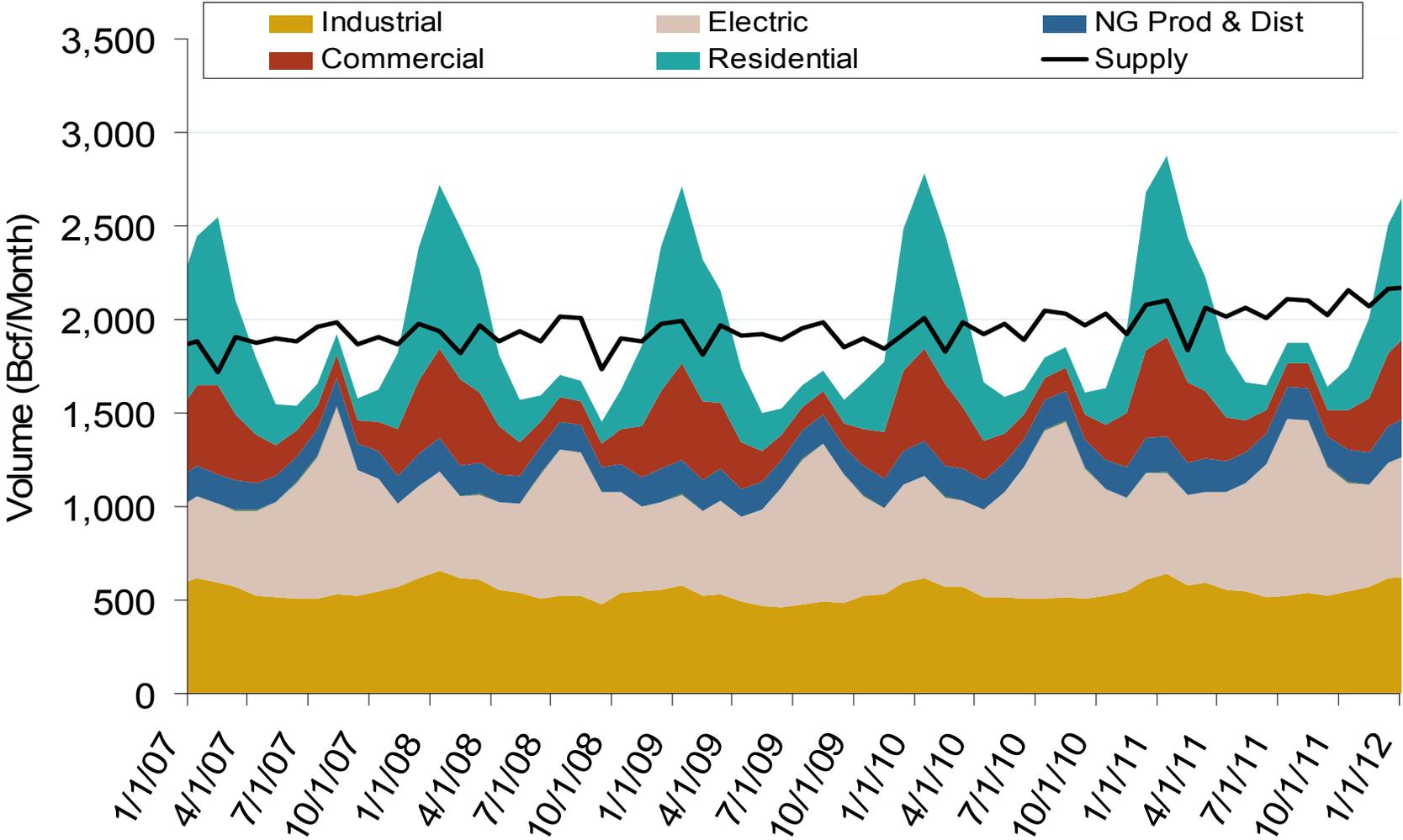
Source: Derived from *Platts* and *Baker Hughes* data  
April 2012 Midwest Snapshot Report

Updated: April 18, 2012

# Examples of Drill Bits Used in Shale Gas Production



### Annual U.S. Natural Gas Consumption by Sector



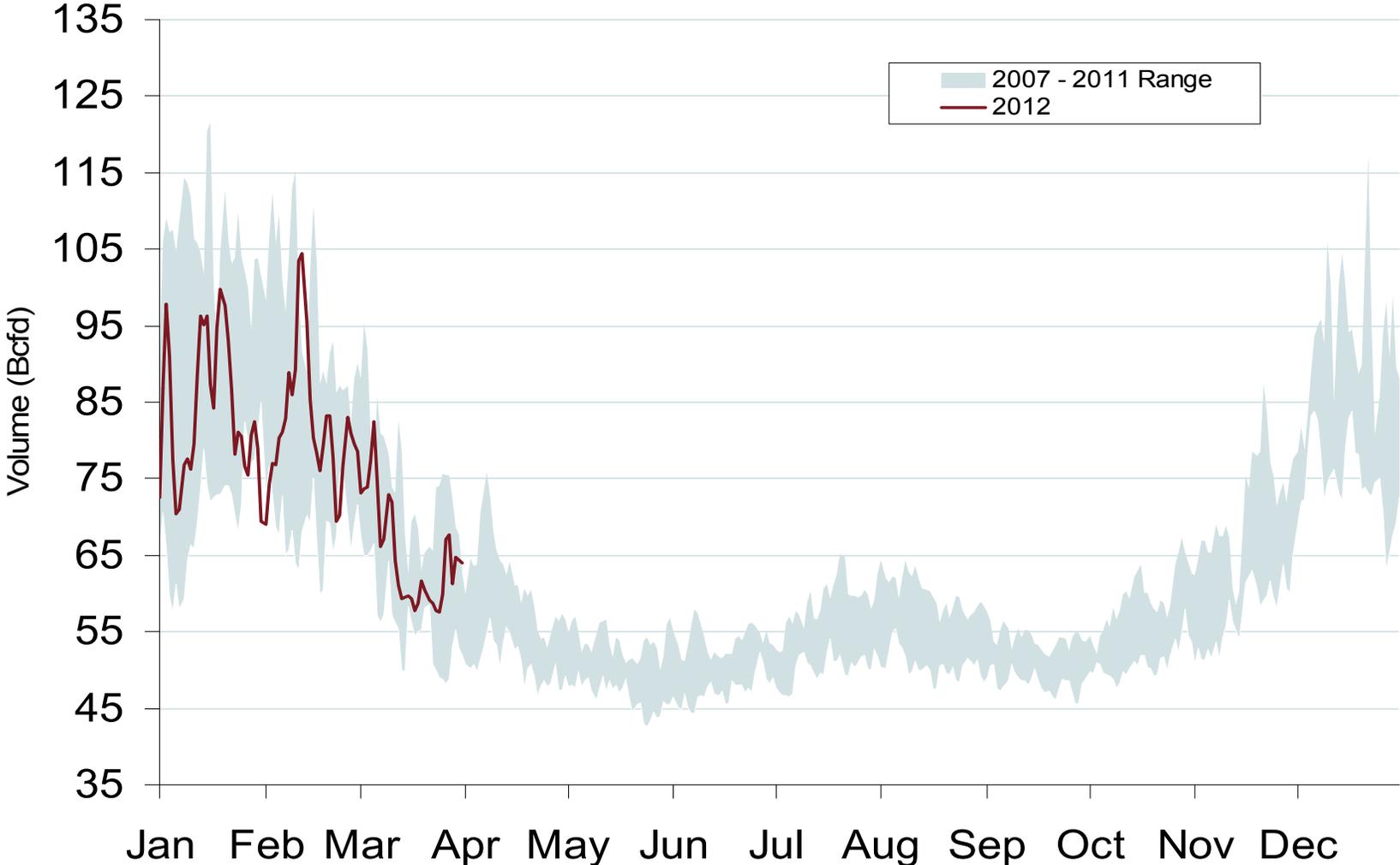
Notes: Supply includes lower 48 state production, net pipeline imports, and LNG imports

Source: Derived from EIA data

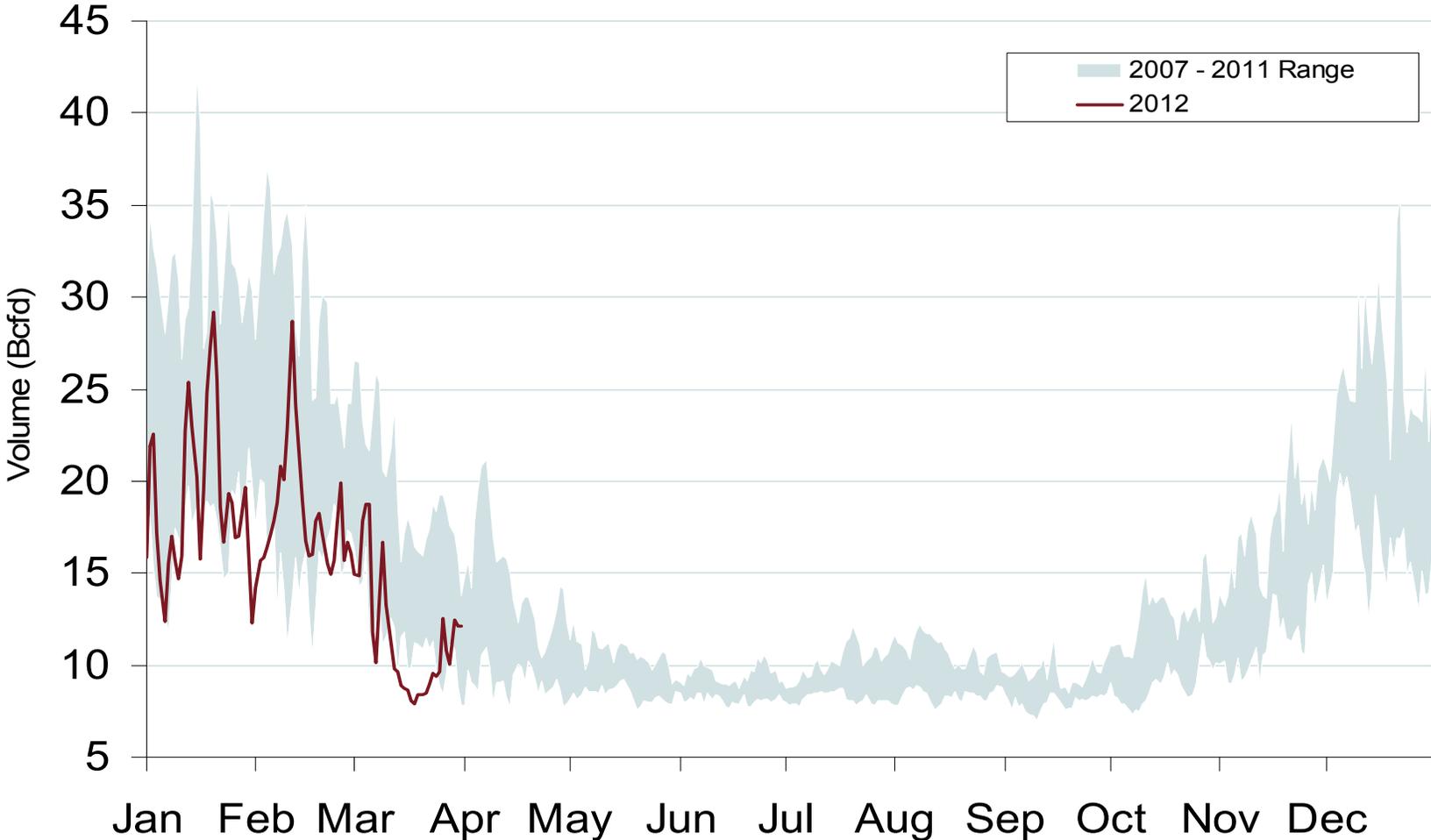
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

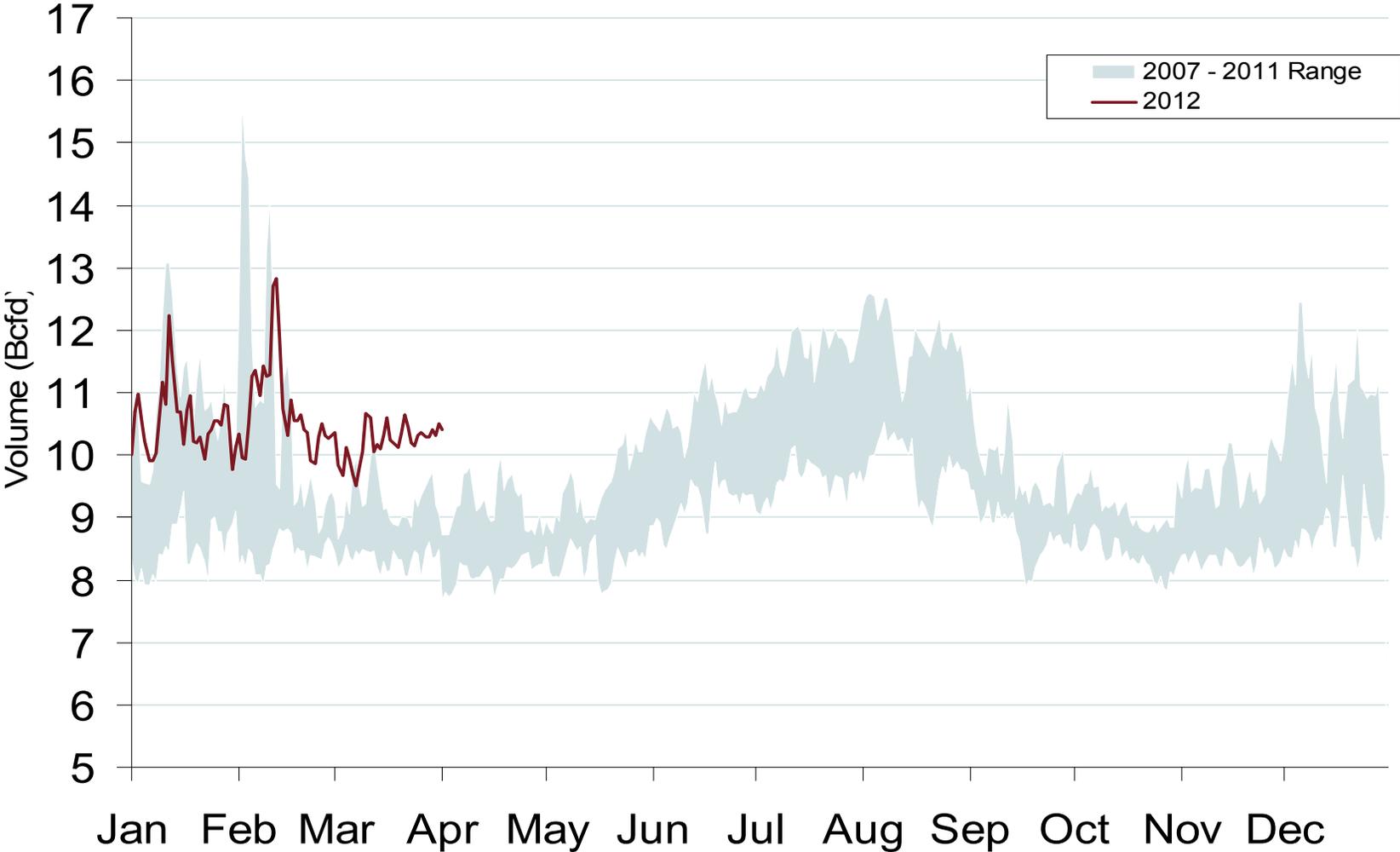
### Total U.S. Natural Gas Demand All Sectors



### Daily Midwest Natural Gas Demand All Sectors



### Daily Gulf Natural Gas Demand All Sectors

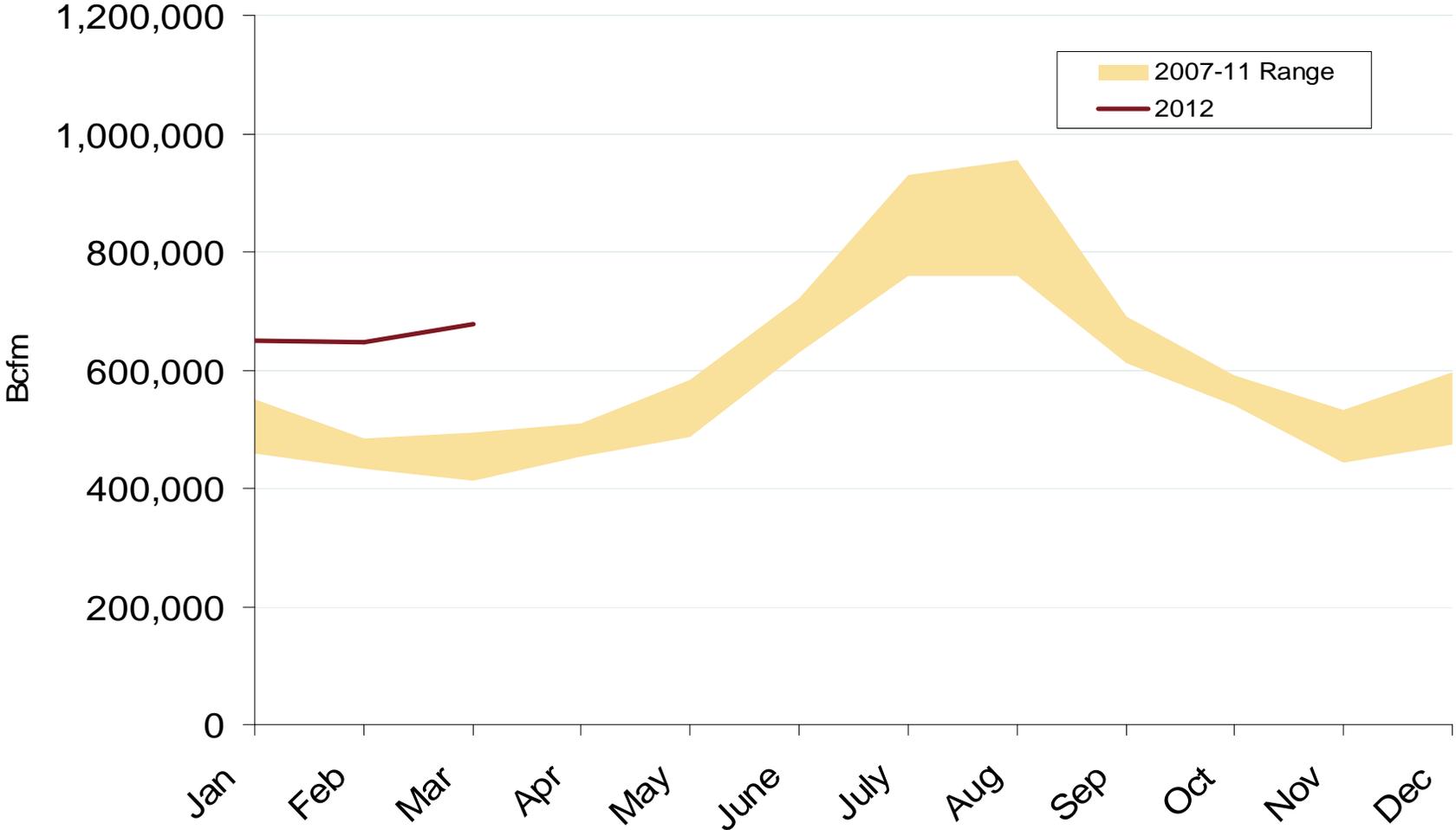


Source: Derived from *Bentek Energy* data  
April 2012 Midwest Snapshot Report

Updated: April 19, 2012

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# U.S. Natural Gas Consumption for Power Generation

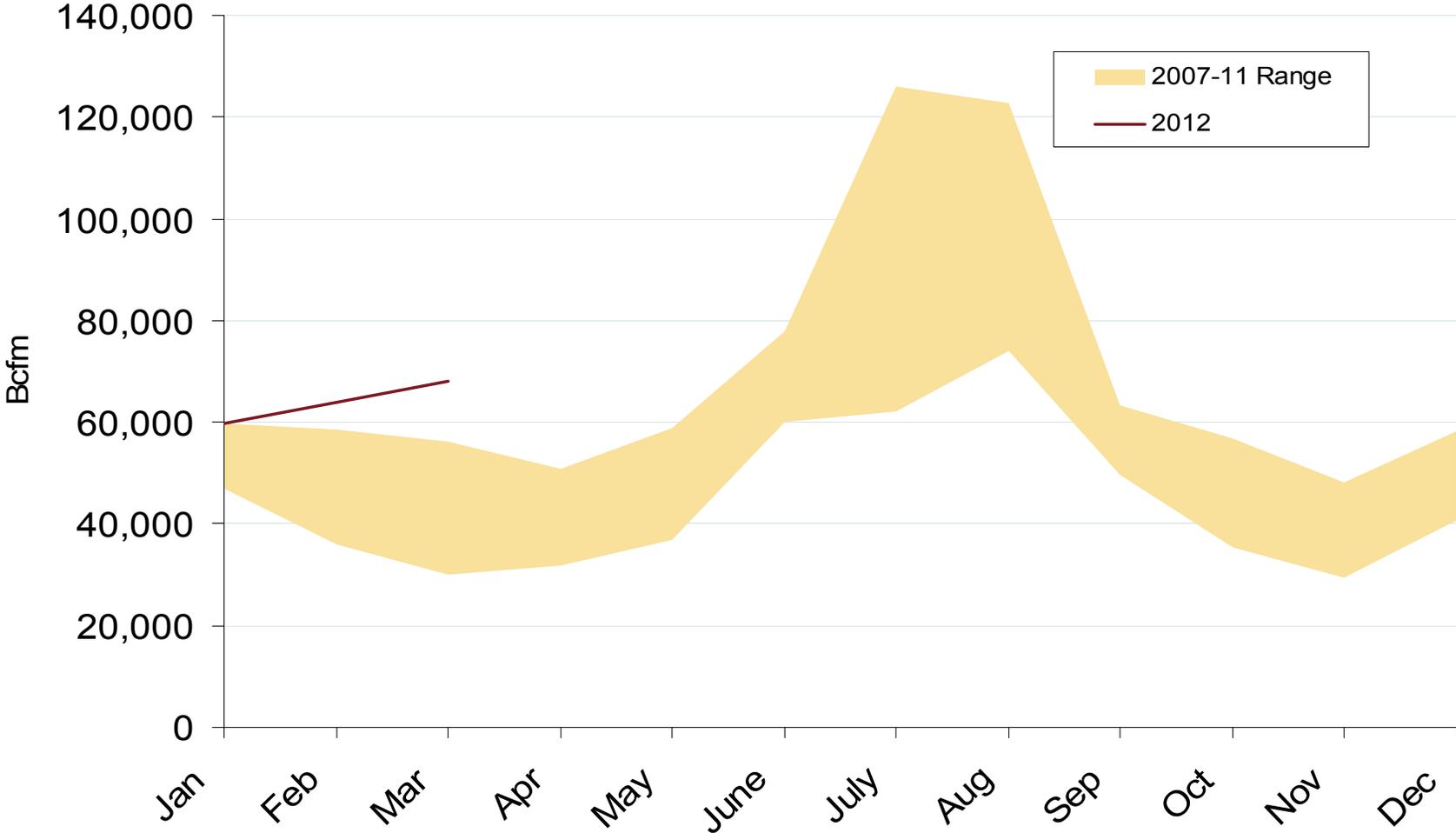


Source: Derived from *Bentek Energy* data  
April 2012 Midwest Snapshot Report

Updated: April 30, 2012

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

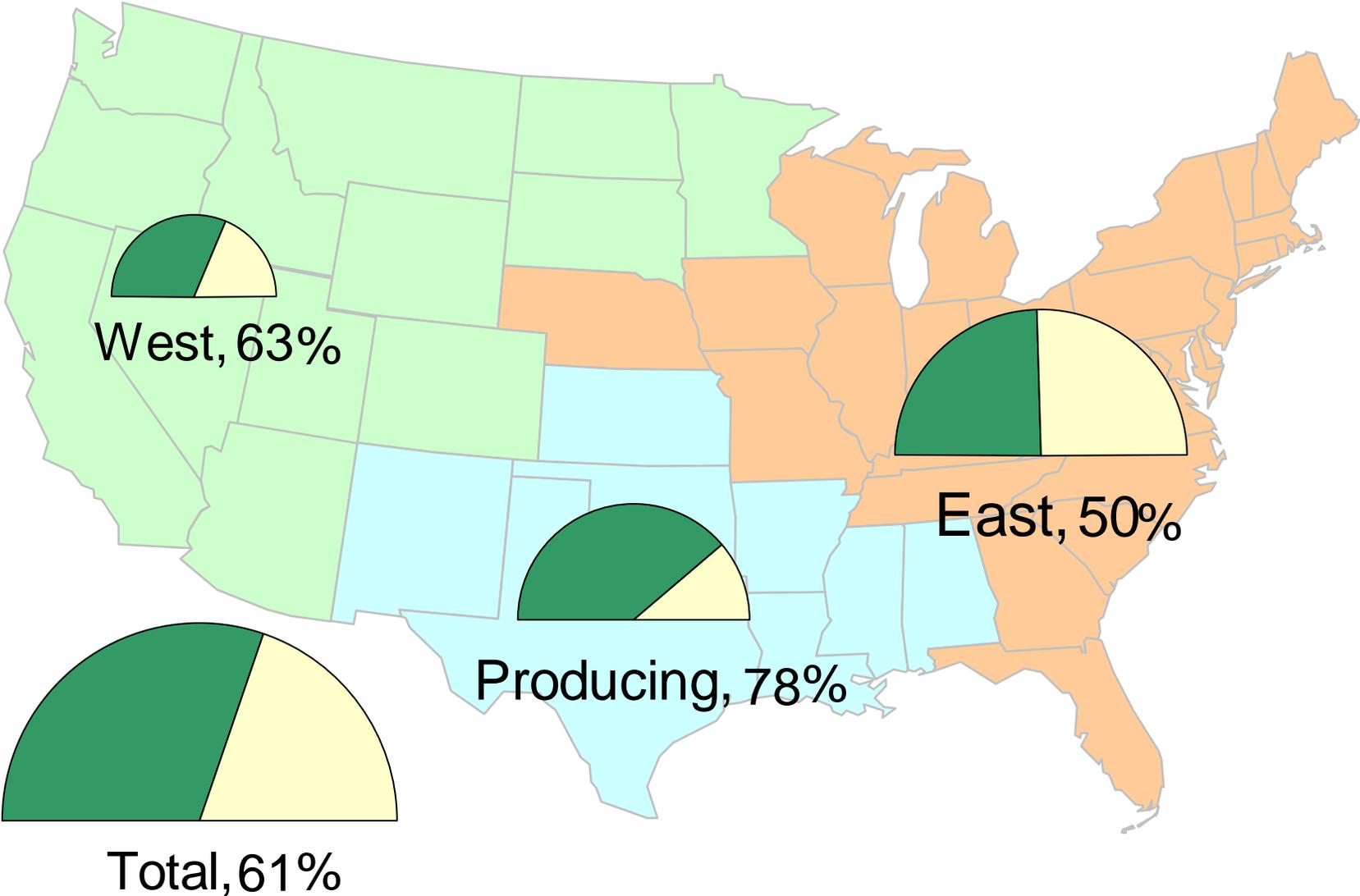
# Midwest Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data  
April 2012 Midwest Snapshot Report

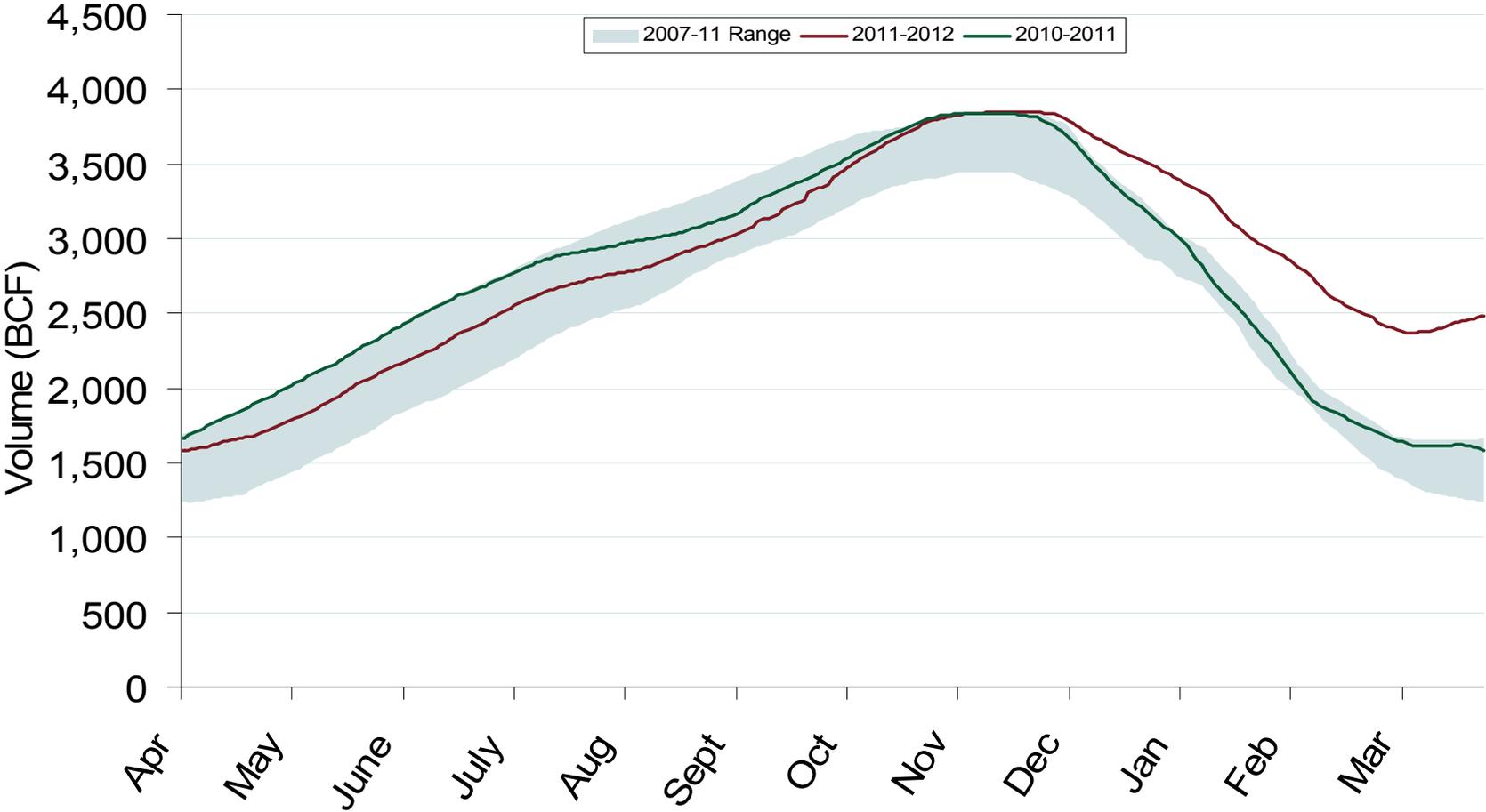
Updated: April 17, 2012

# Natural Gas Storage Inventories – April 6, 2012



Source: Derived from EIA Storage and Estimated Working Gas Capacity data  
April 2012 Midwest Snapshot Report

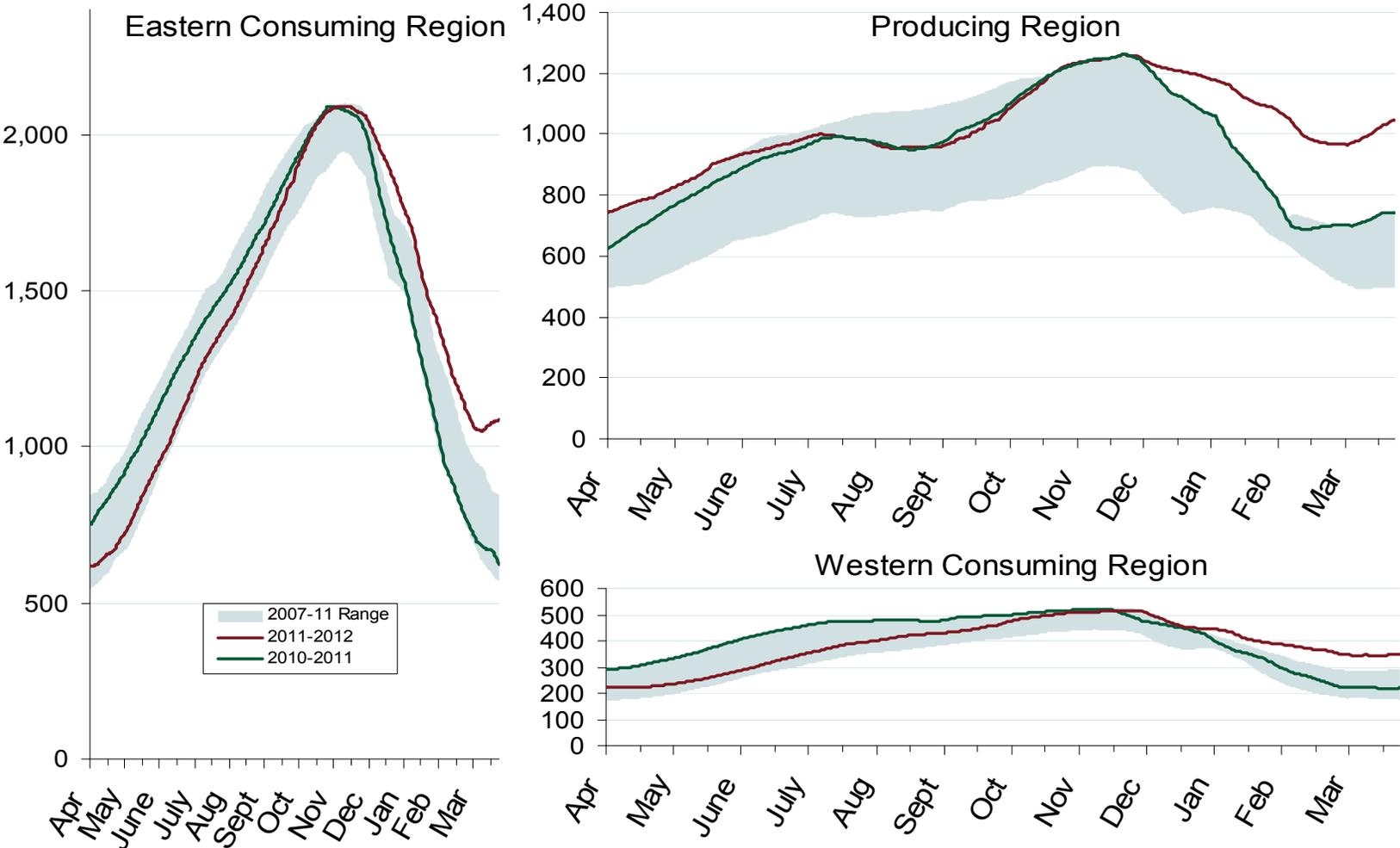
### Total U.S. Working Gas in Storage



Source: Derived from EIA data  
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

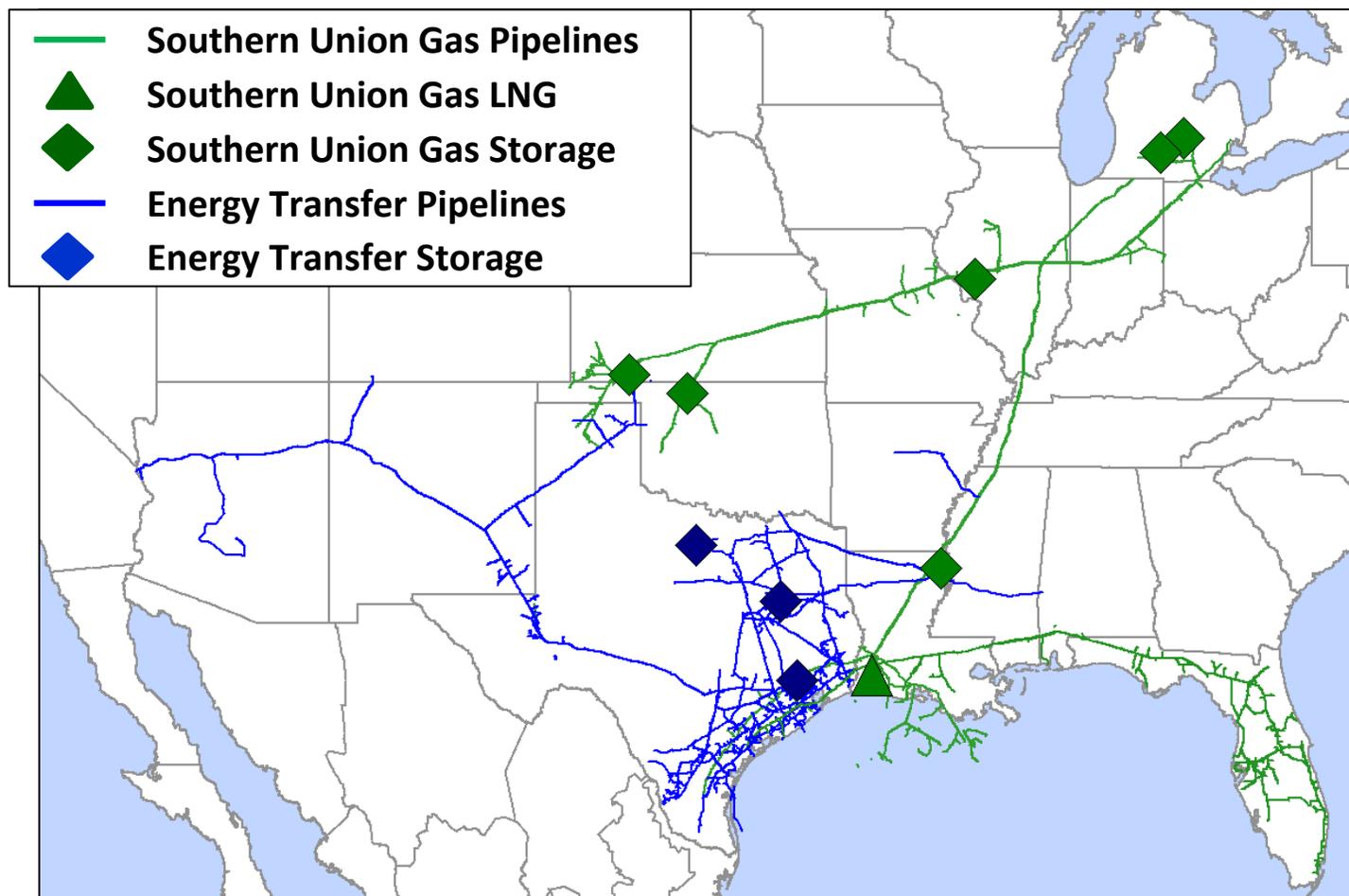
# Regional Totals of Working Gas in Storage



Source: Derived from EIA data  
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

## Energy Transfer and Southern Union Merger Creates One of the Largest Midstream Companies

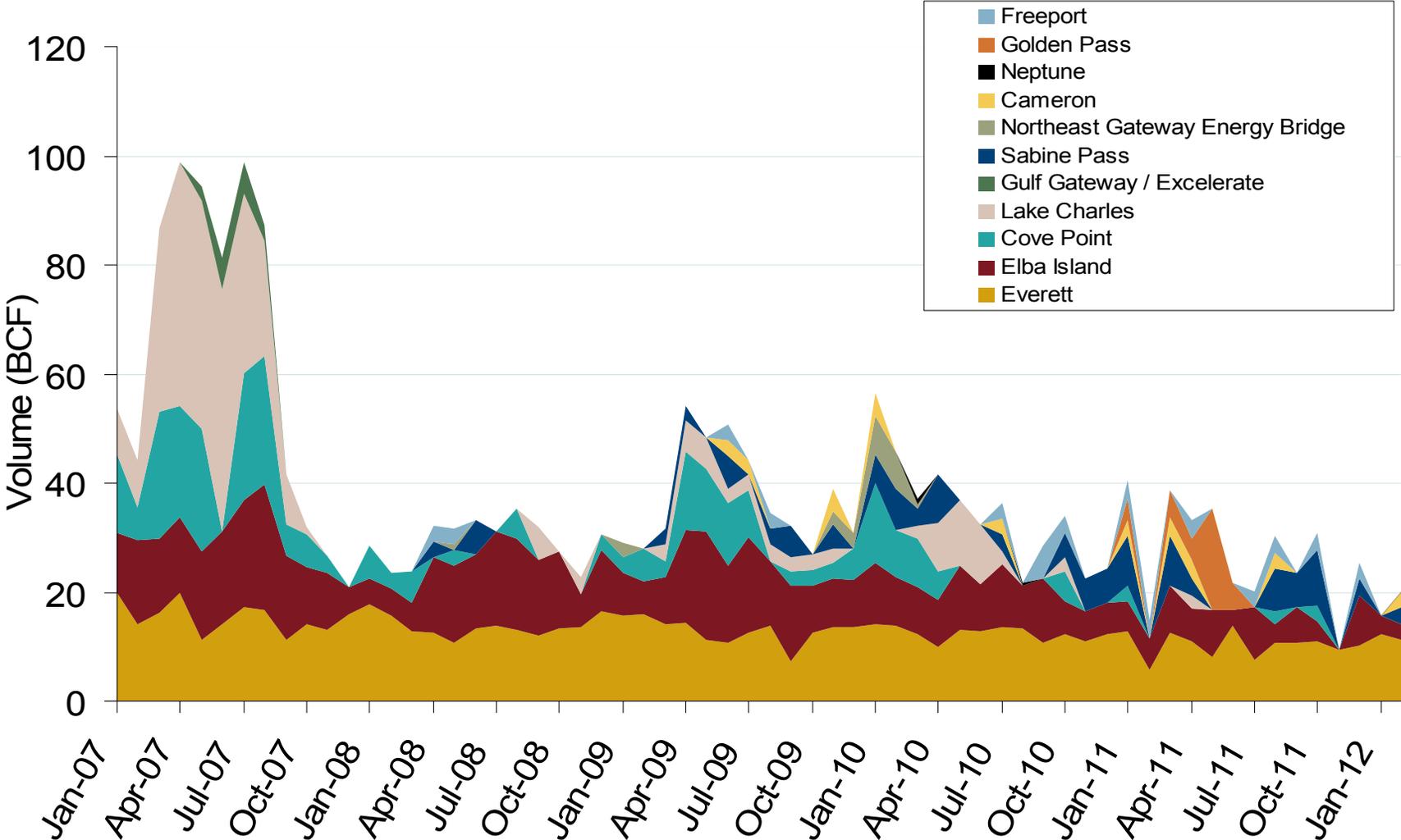


# World LNG Estimated May 2012 Landed Prices



Source: Waterborne Energy, Inc. Data in \$US/MMBtu  
April 2012 Midwest Snapshot Report

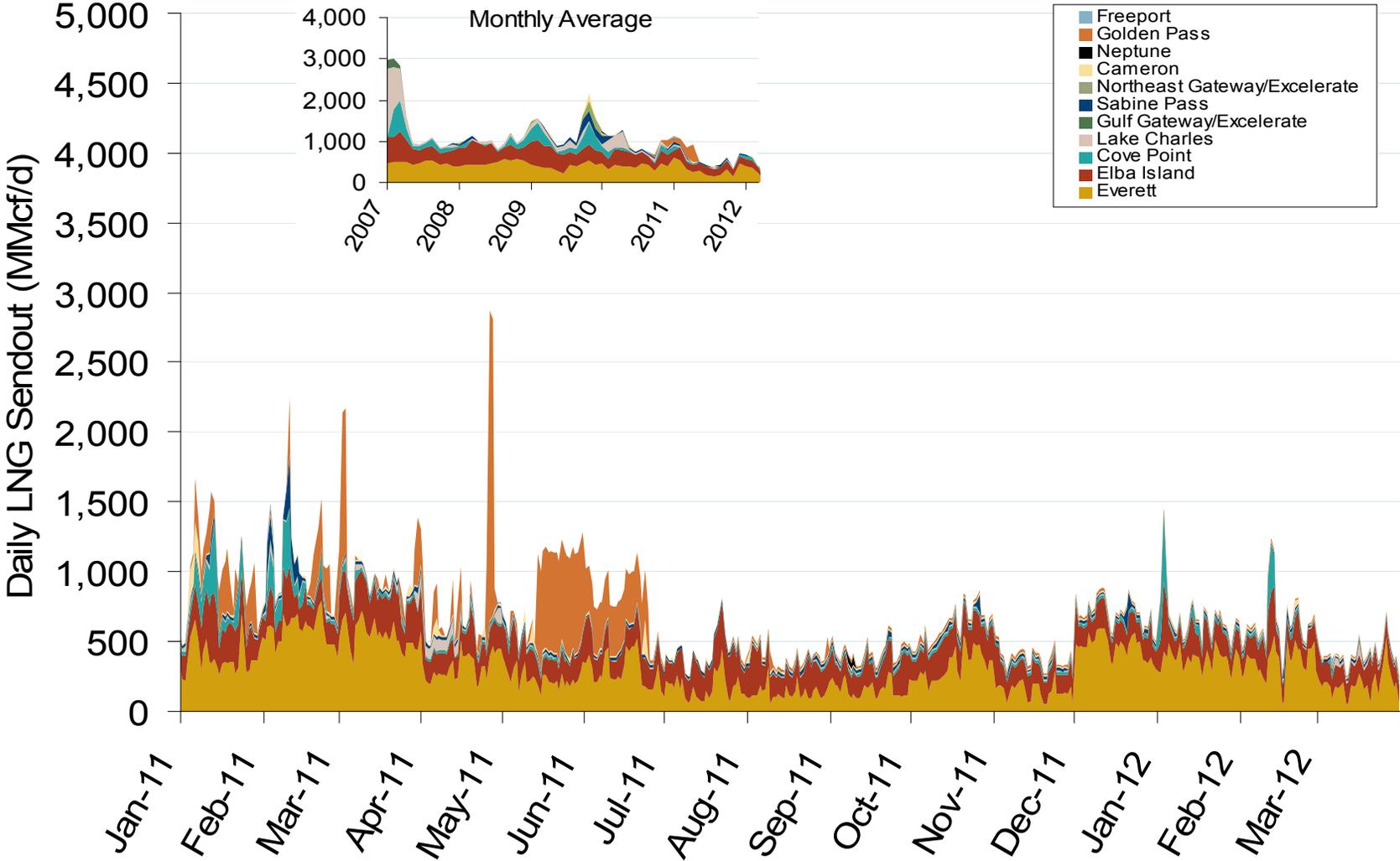
### Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data  
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

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



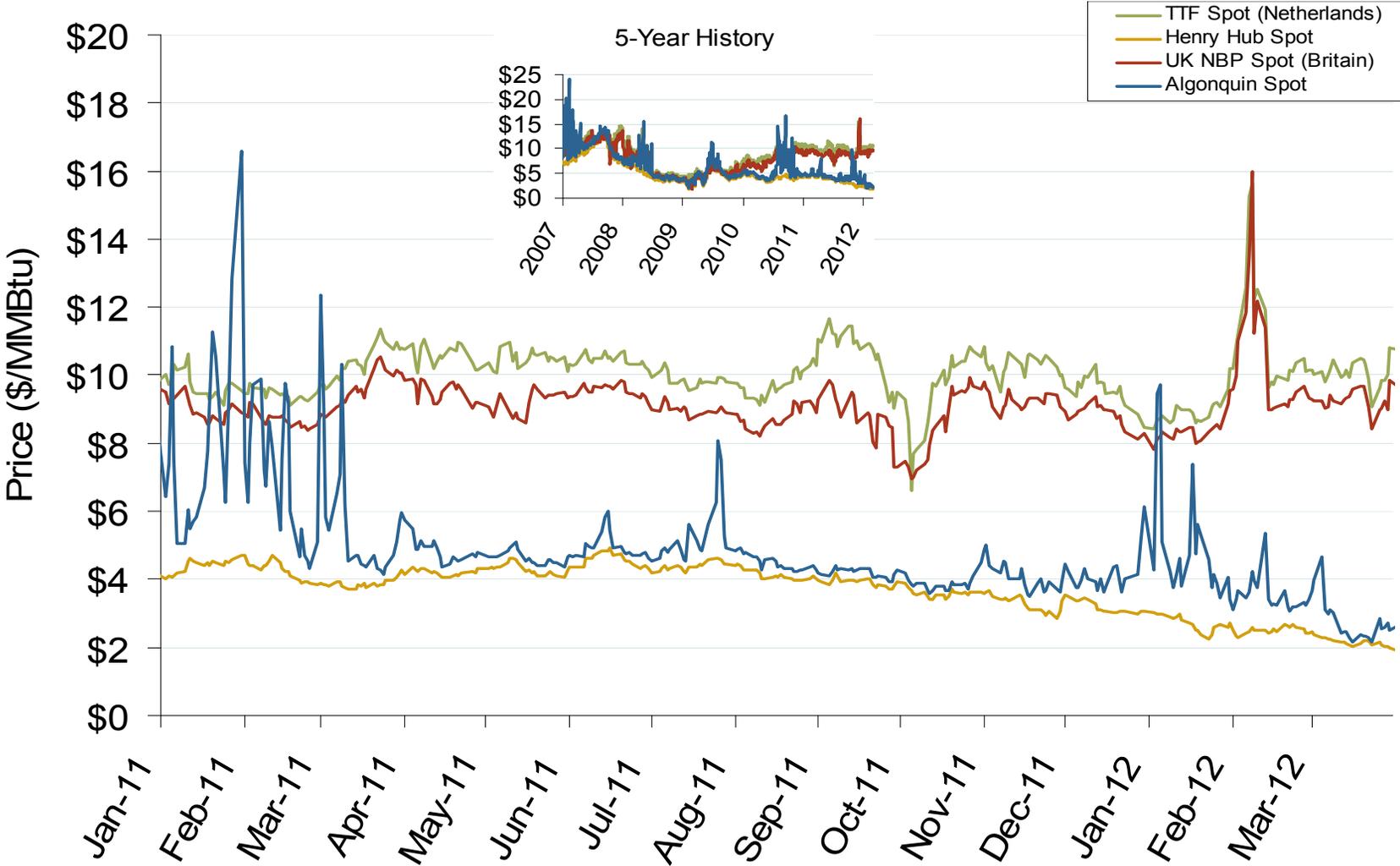
Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes Freeport LNG which flows via intrastate pipelines

Source: Derived from Bentek Energy data

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Updated: April 17, 2012

# Atlantic Basin European and US Spot Natural Gas Prices

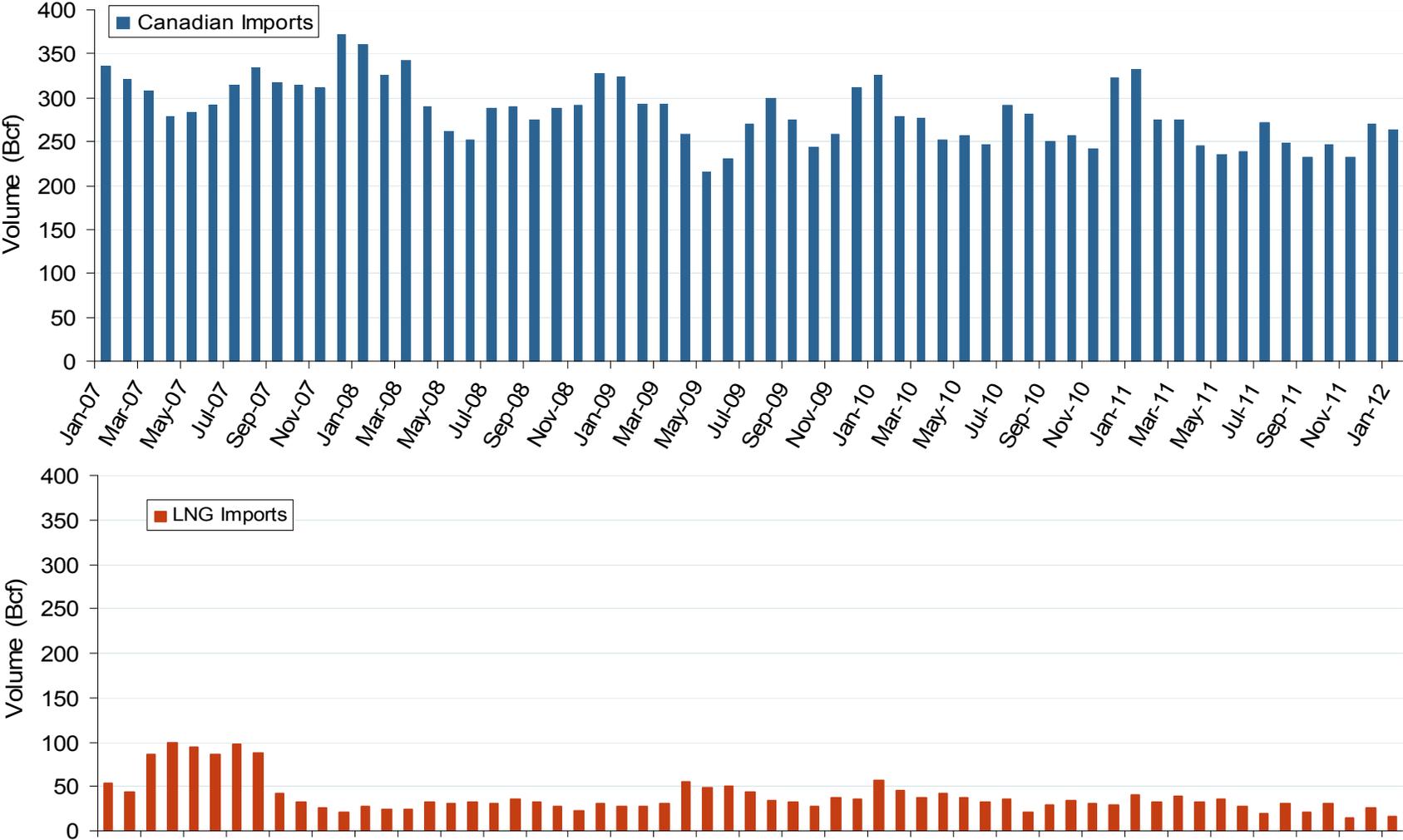


Source: Derived from *Bloomberg* and *ICE* data  
April 2012 Midwest Snapshot Report

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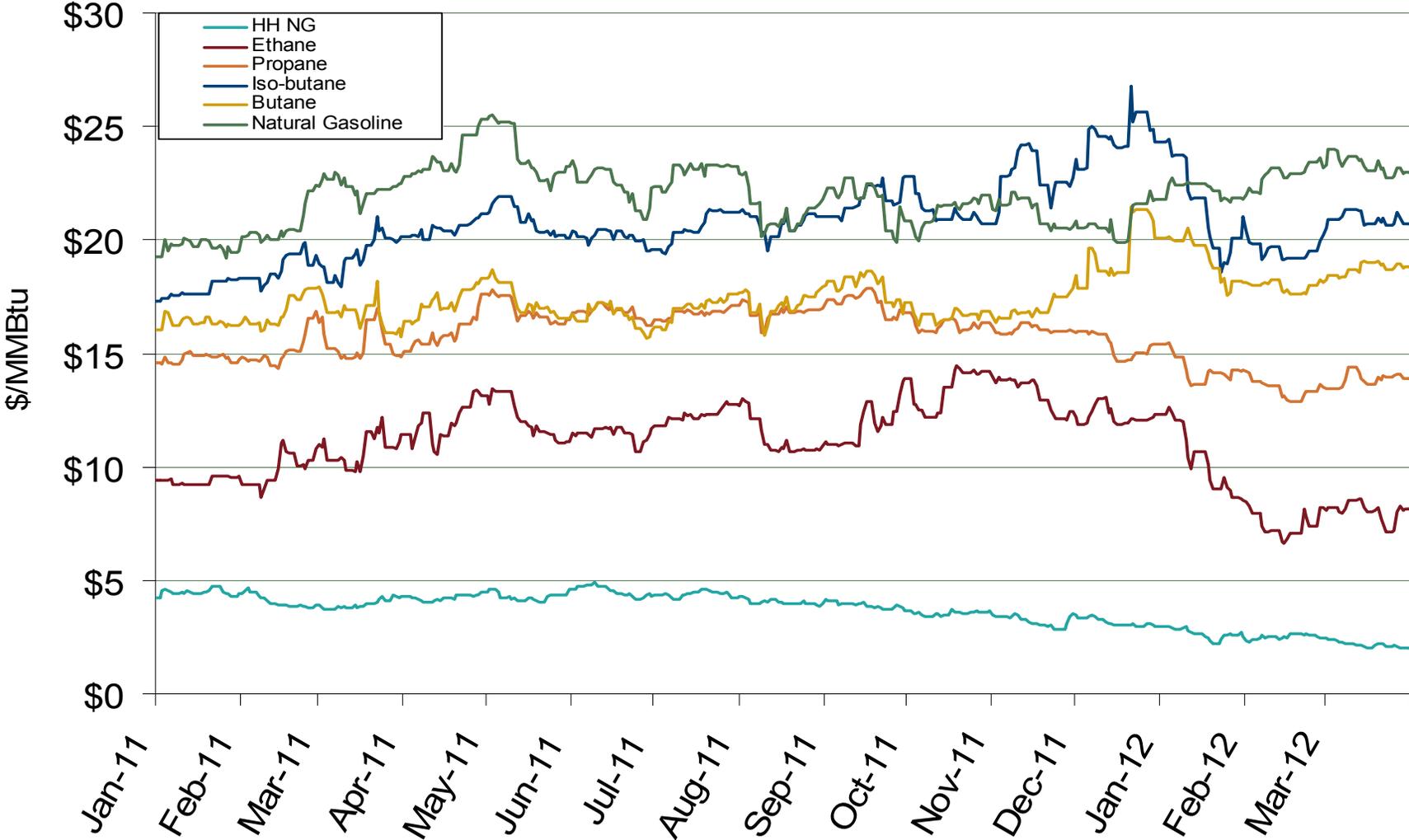
### Canadian and LNG Natural Gas Imports Into the U.S.



Source: EIA Natural Gas Monthly  
April 2012 Midwest Snapshot Report

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



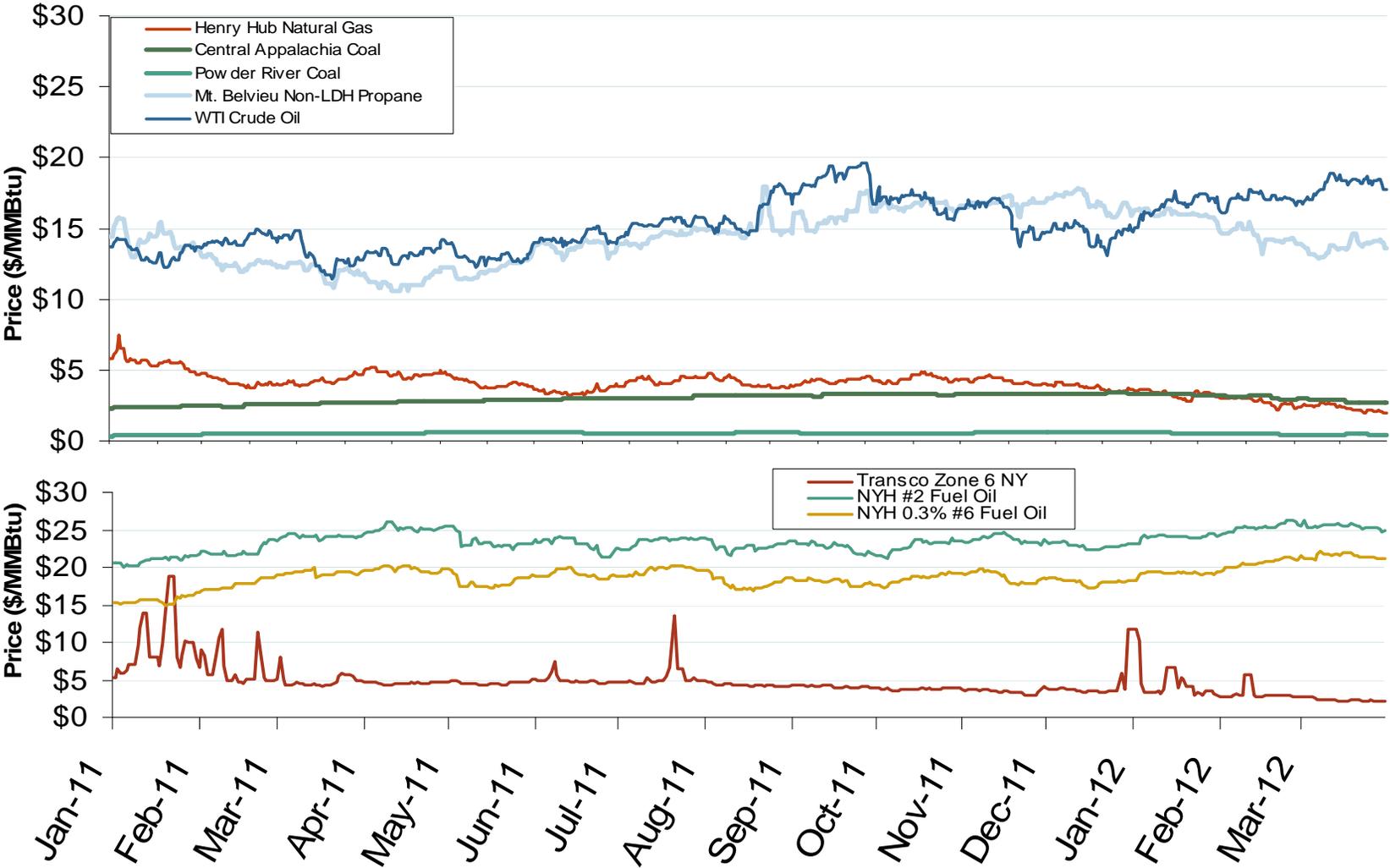
Source: Derived from Bloomberg Data  
April 2012 Midwest Snapshot Report

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Other Fuels Market: Fossil Fuel Prices

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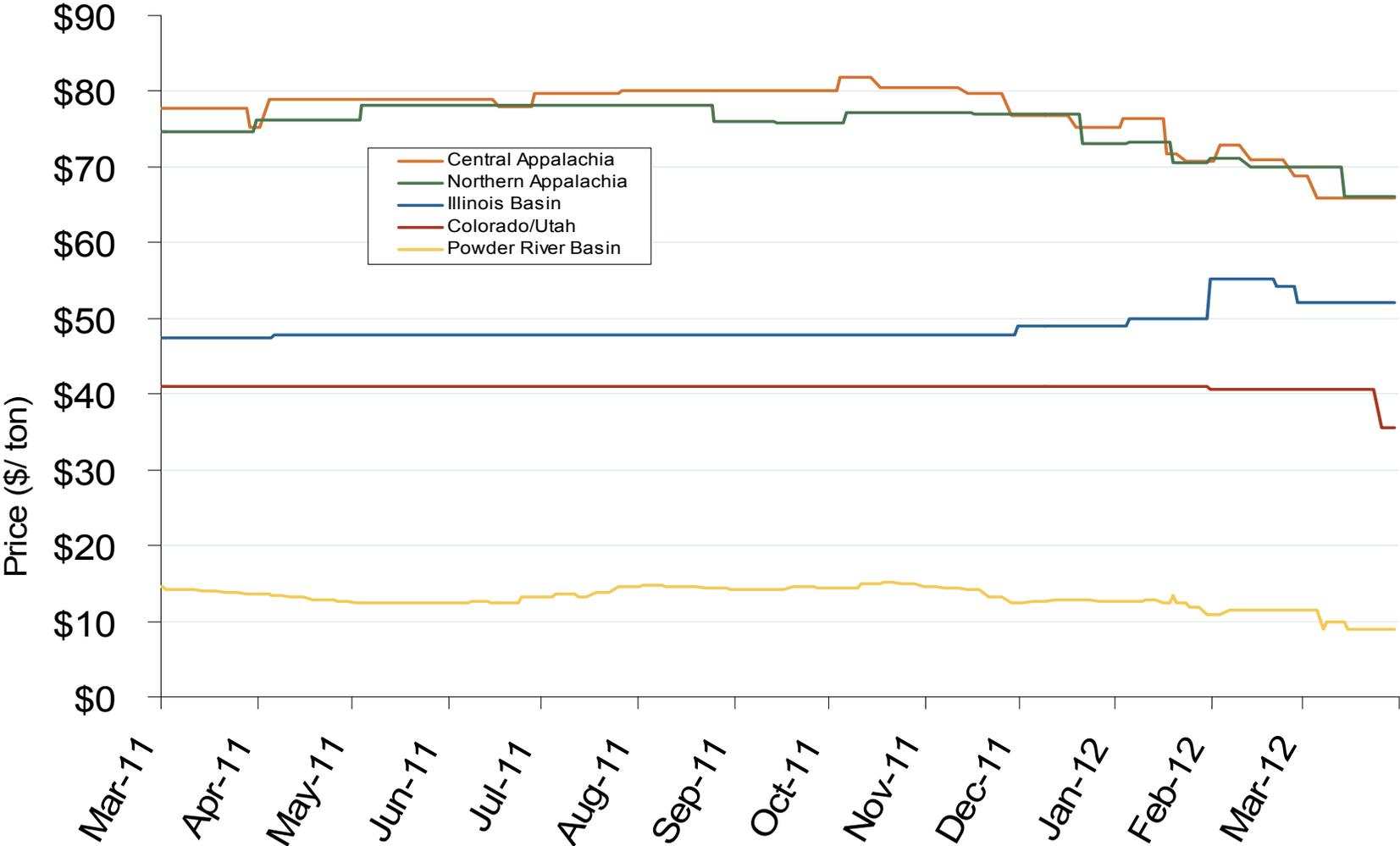
# Oil, Coal, Natural Gas and Propane Daily Spot Prices



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

# Central Appalachian and Powder River Basin Coal Prices



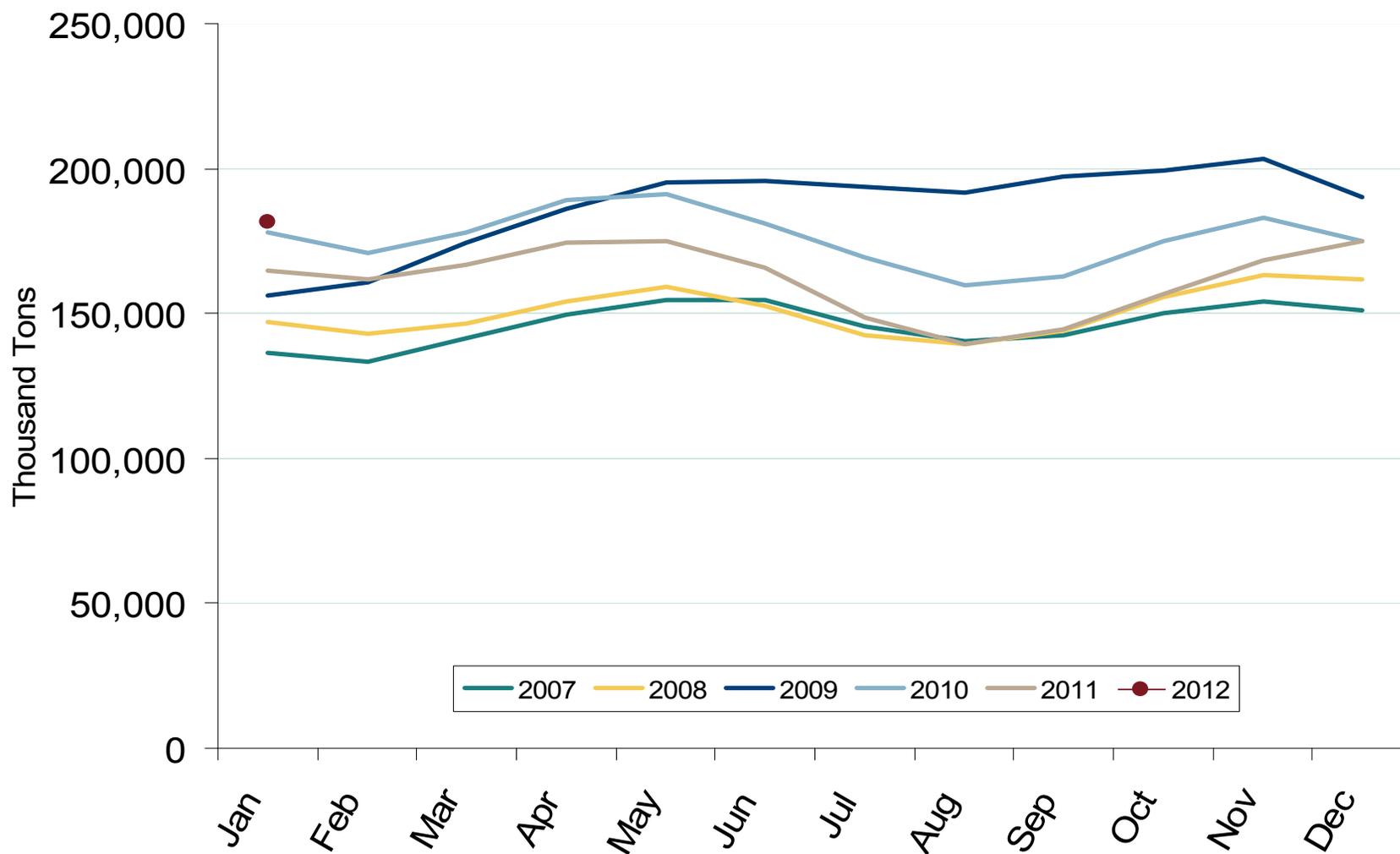
Notes: The Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances

Source: Derived from Bloomberg data

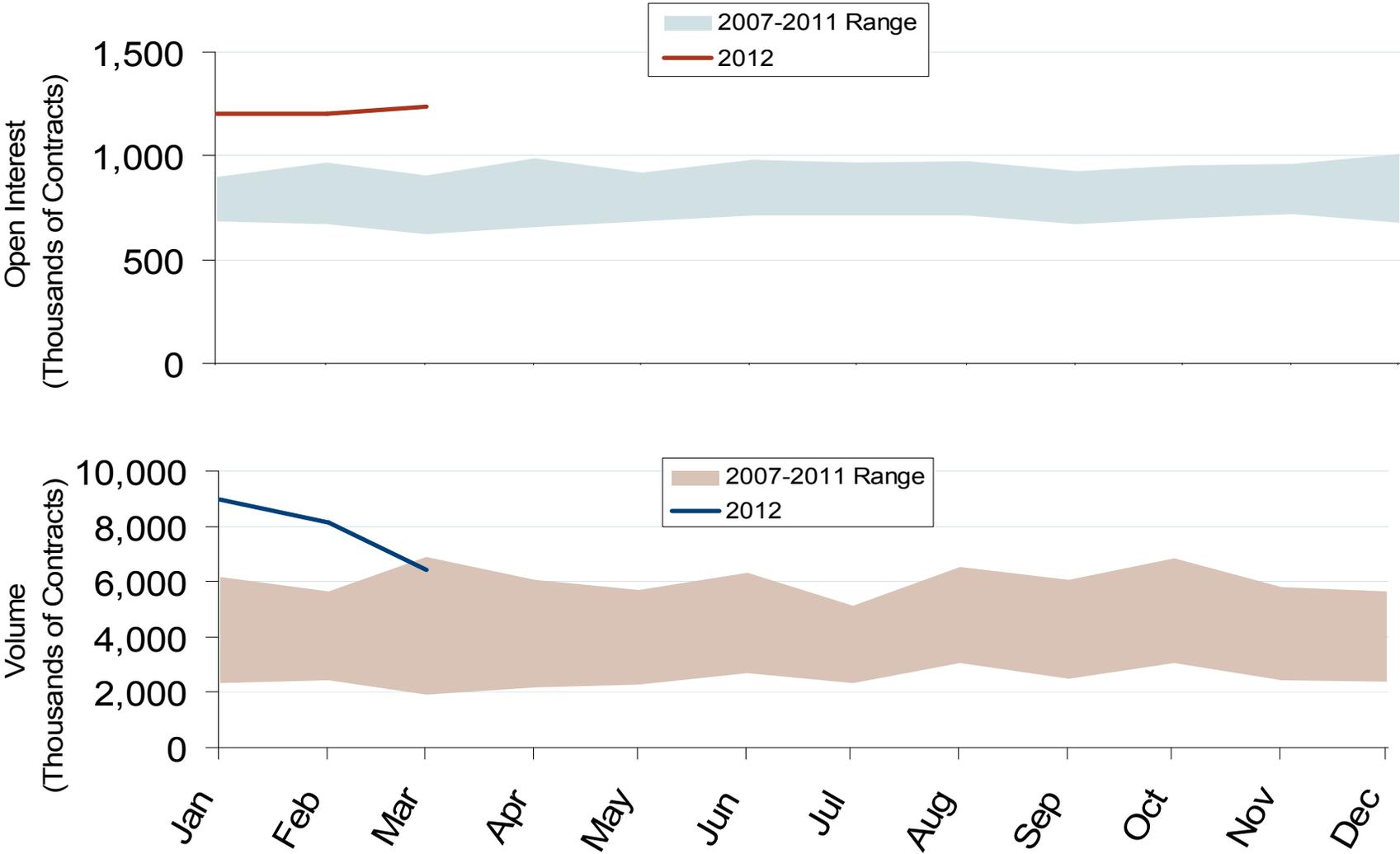
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## U.S. Coal Stockpiles at Electric Power Generating Facilities

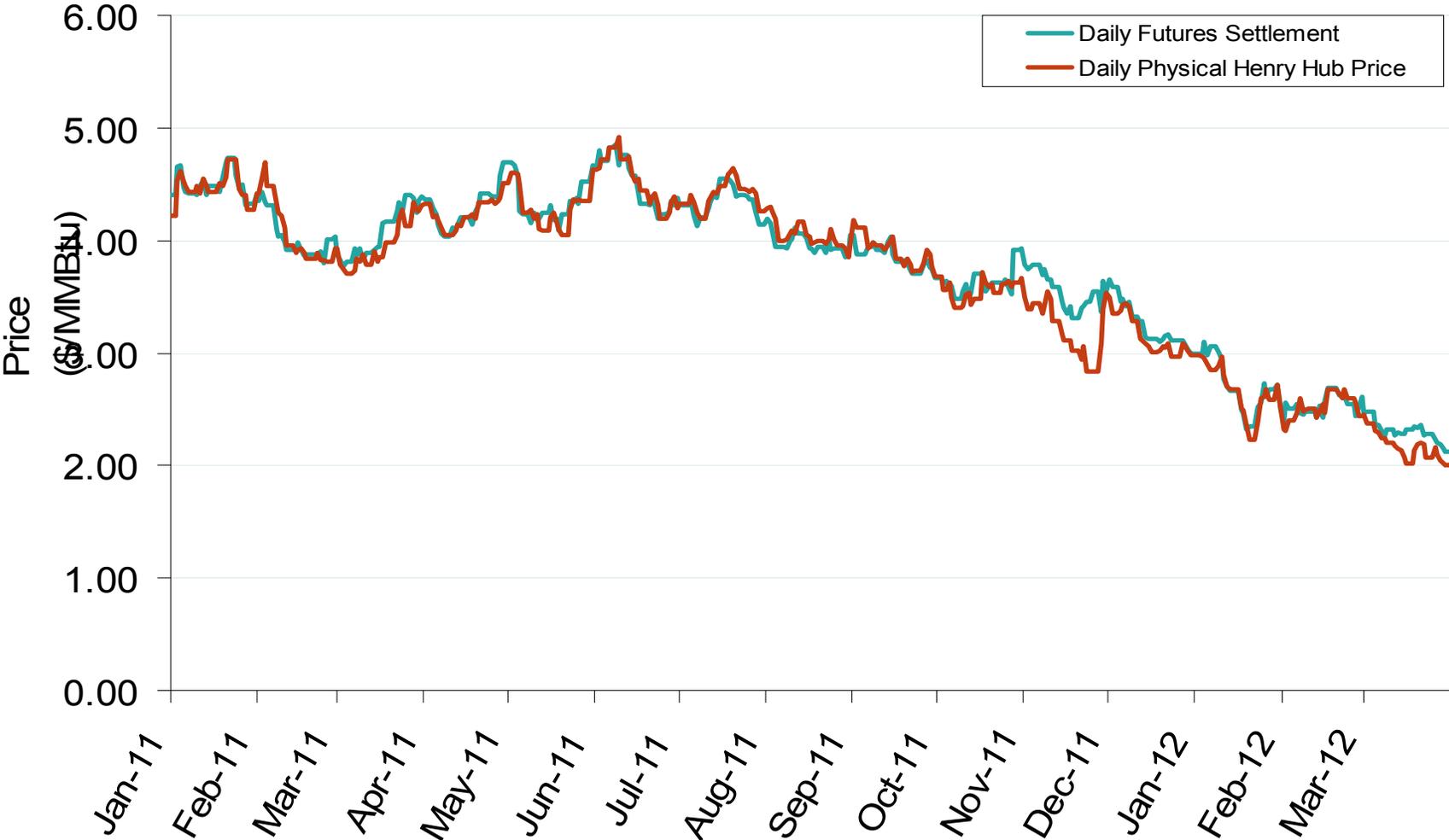


# Nymex NG Futures Month-End Open Interest and Monthly Volume



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### Daily Physical Index Price & Daily Futures Settlement Price

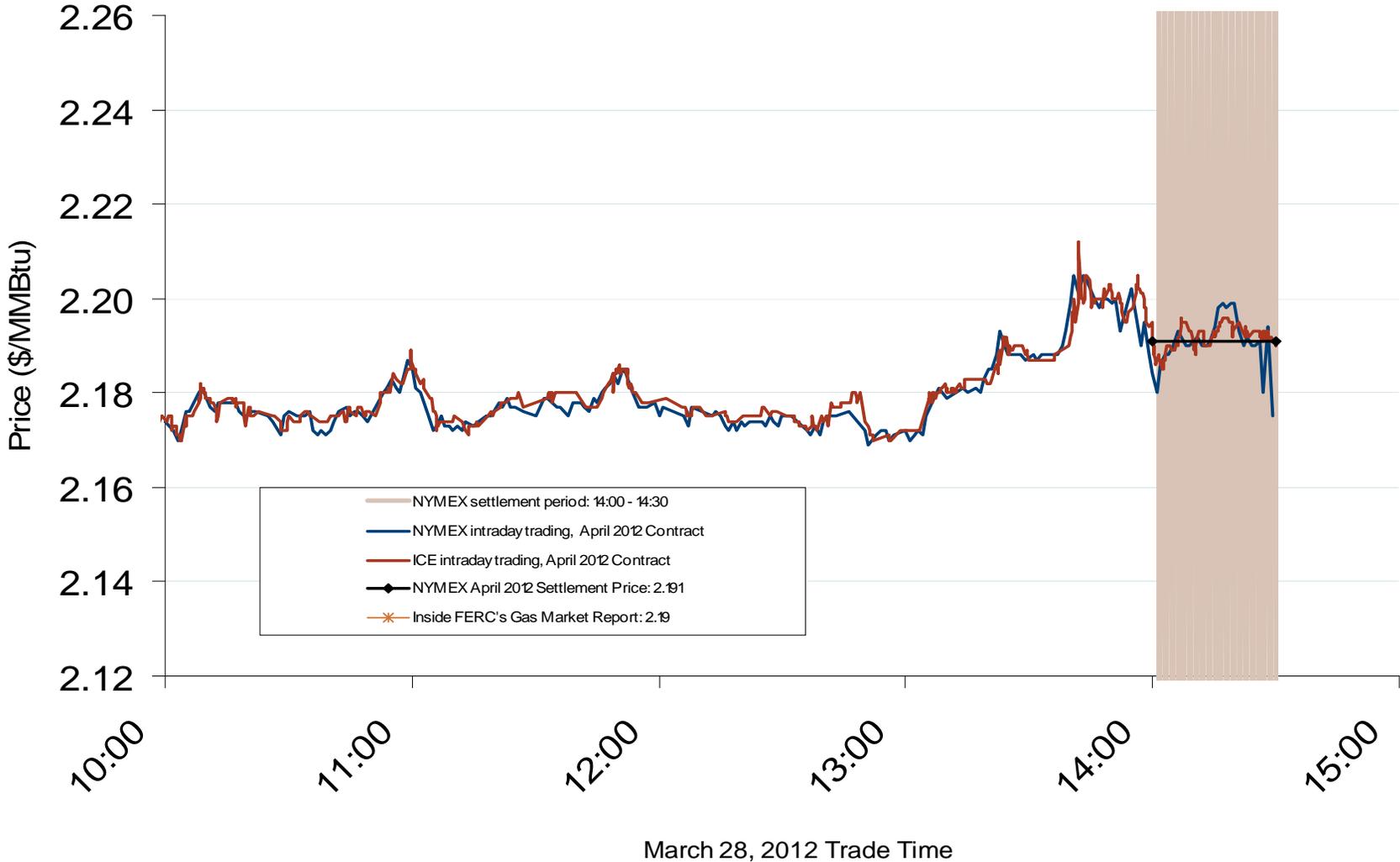


Source: Derived from *Bloomberg* data  
April 2012 Midwest Snapshot Report

Updated: April 18, 2012

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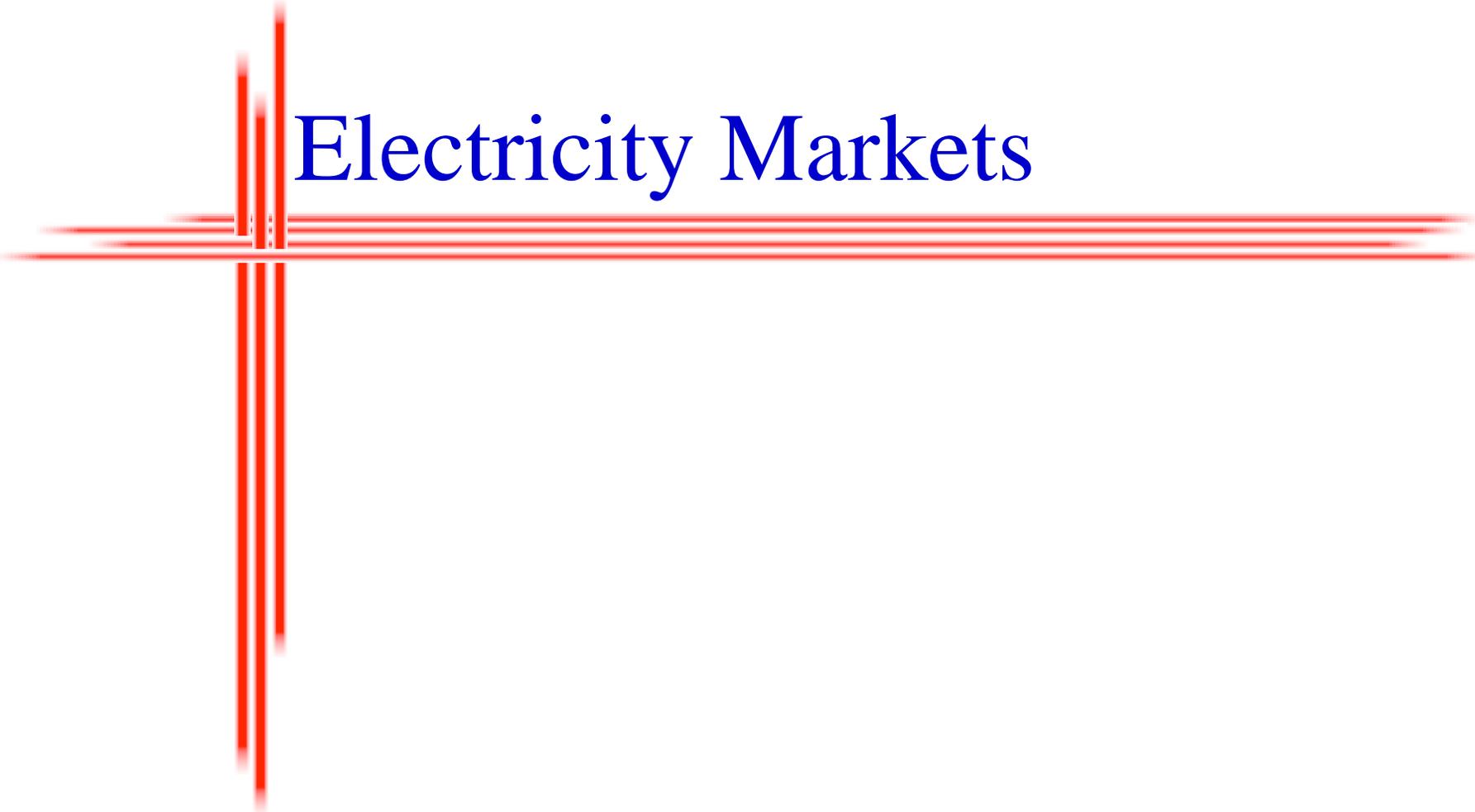
# Nymex and ICE Contract Final Settlement - April 2012



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  
April 2012 Midwest Snapshot Report

Updated: April 19, 2012

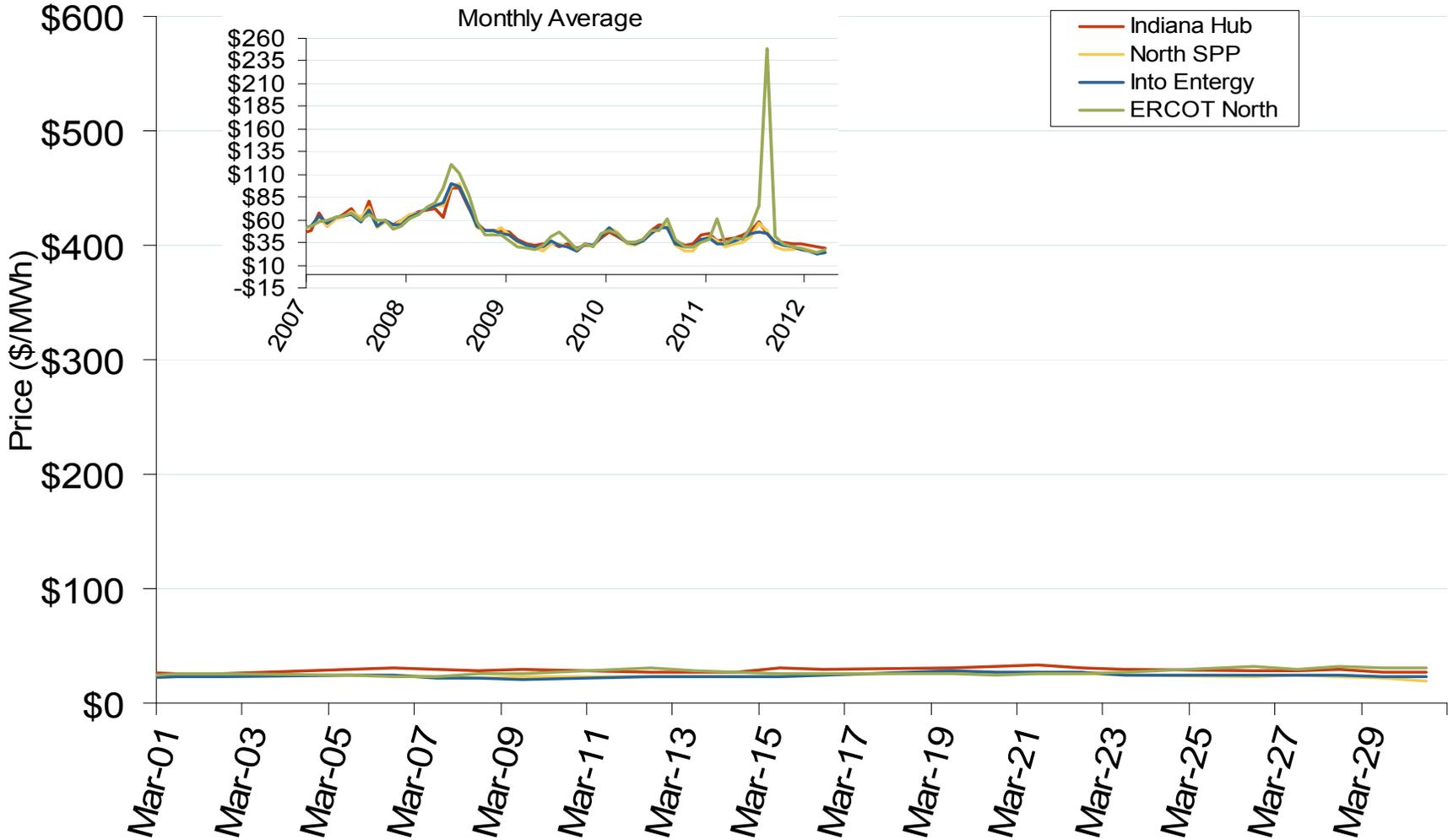


# Electricity Markets

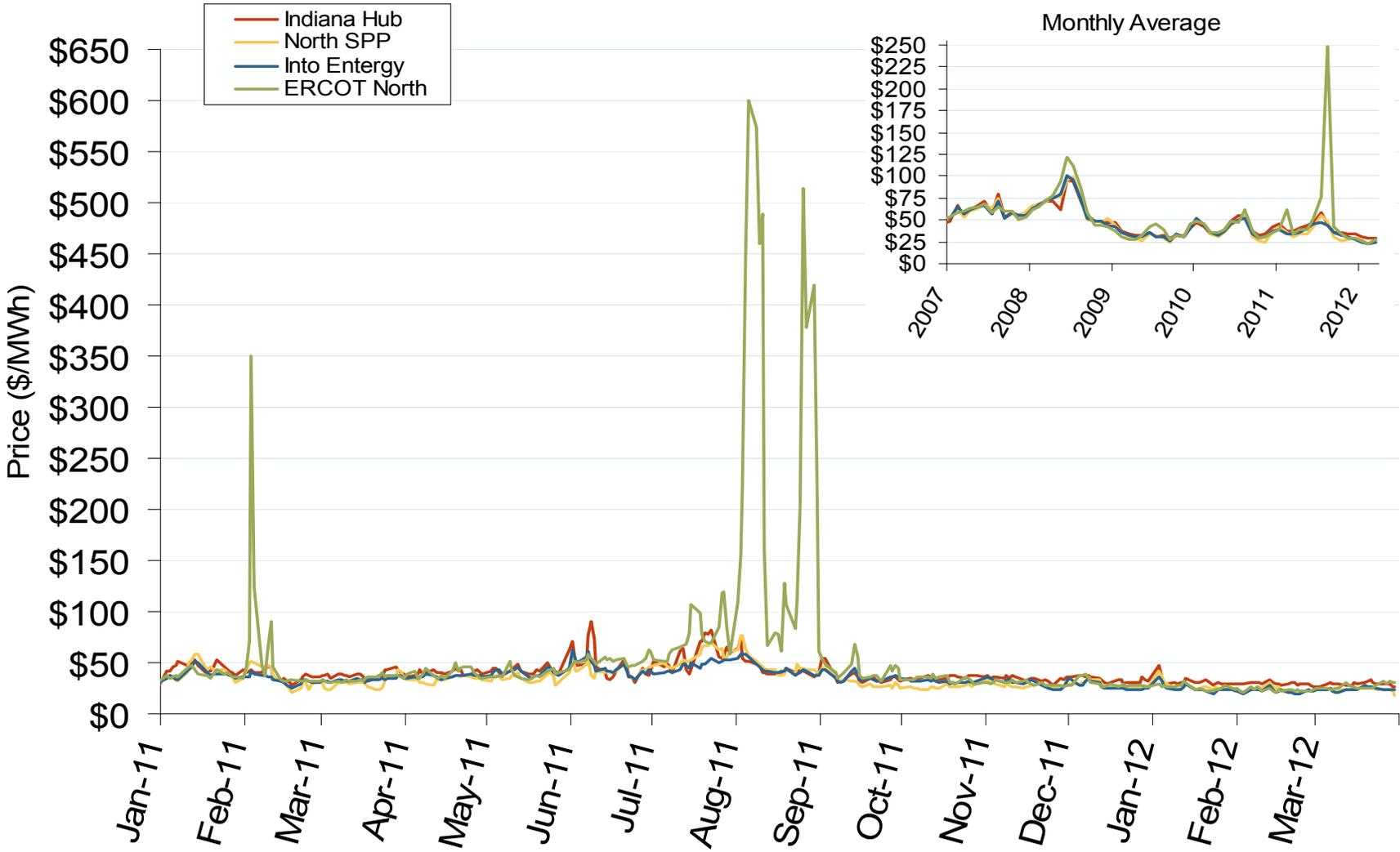
Midwest Electric Market: Last Month's Midwestern Index Prices

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

### Midwestern Daily Index Day-Ahead On-Peak Prices



### Midwestern Daily Index Day-Ahead On-Peak Prices

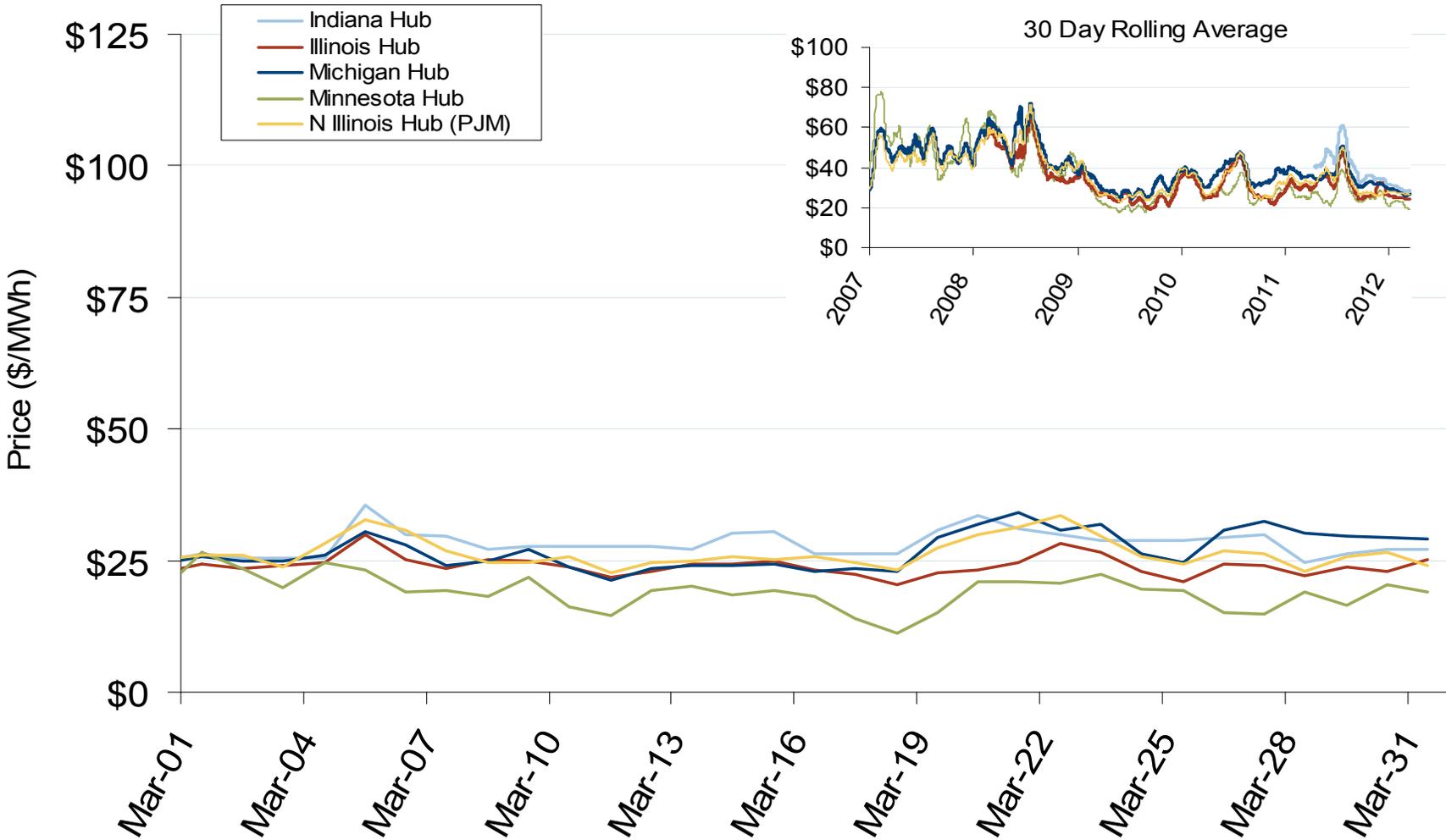


Source: Derived from *Platts* data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

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

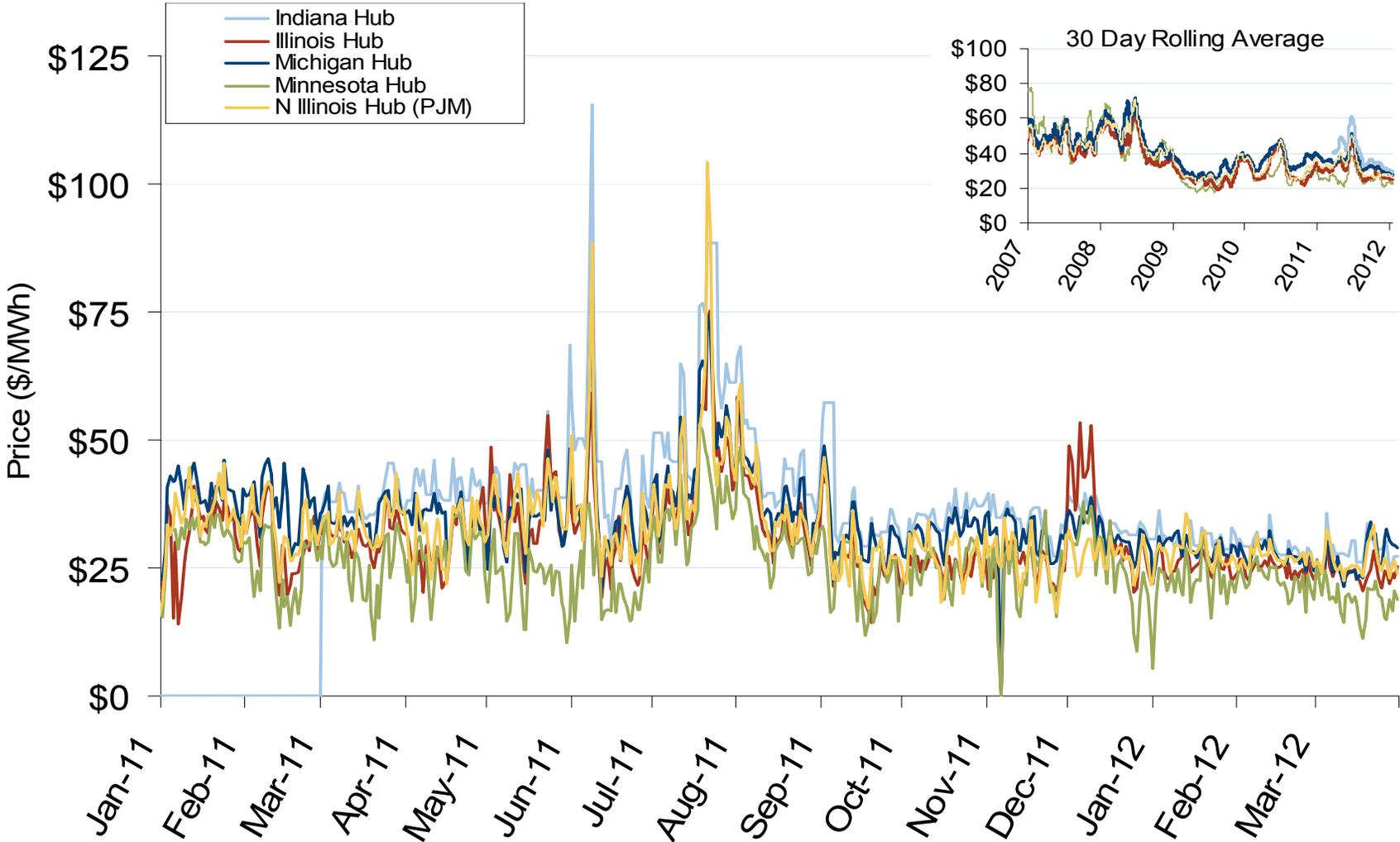
### Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived from *Bloomberg* data  
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

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



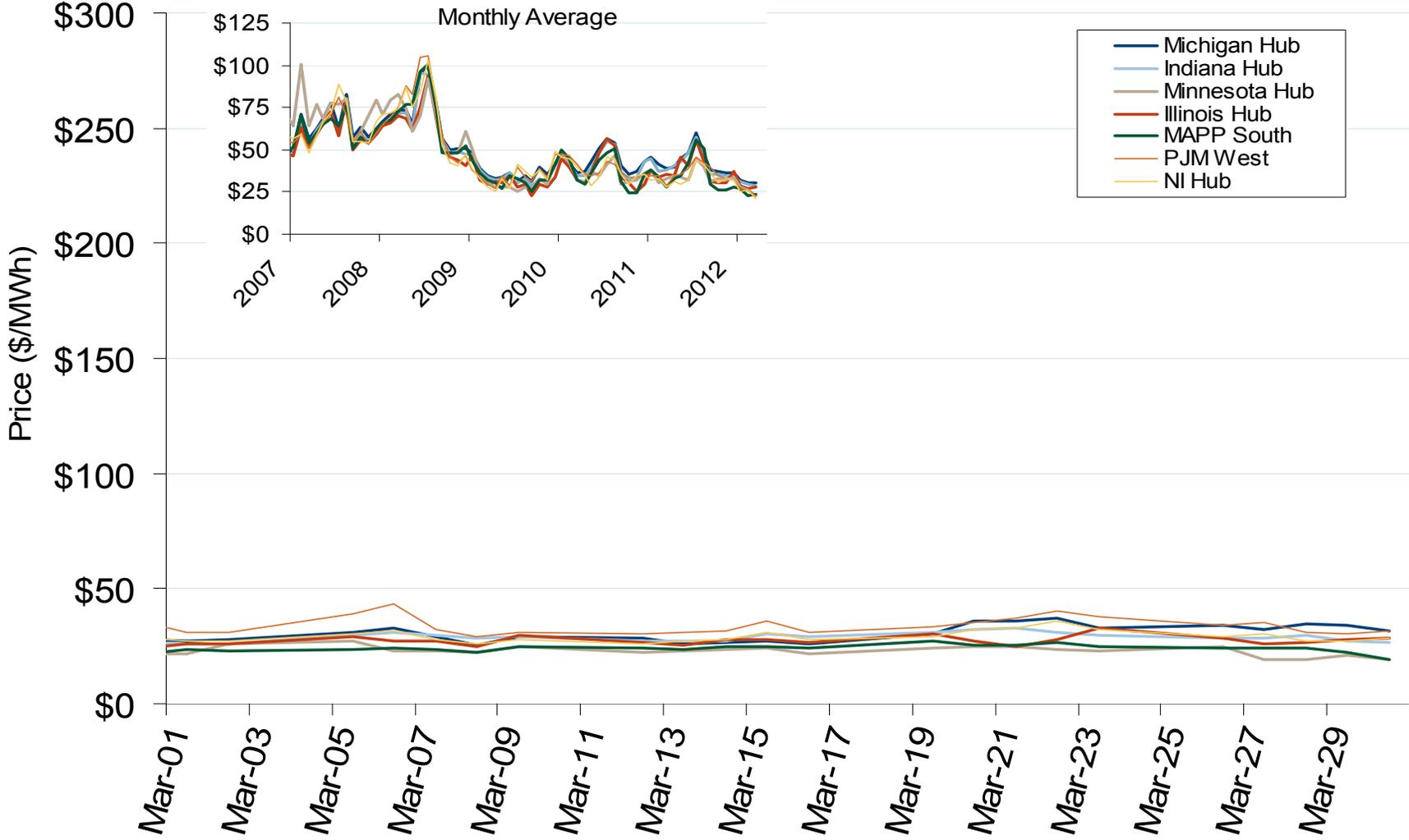
Source: Derived from Bloomberg data  
April 2012 Midwest Snapshot Report

Updated: April 17, 2012

Midwest Electric Market: Last Month's MISO/PJM Index Prices

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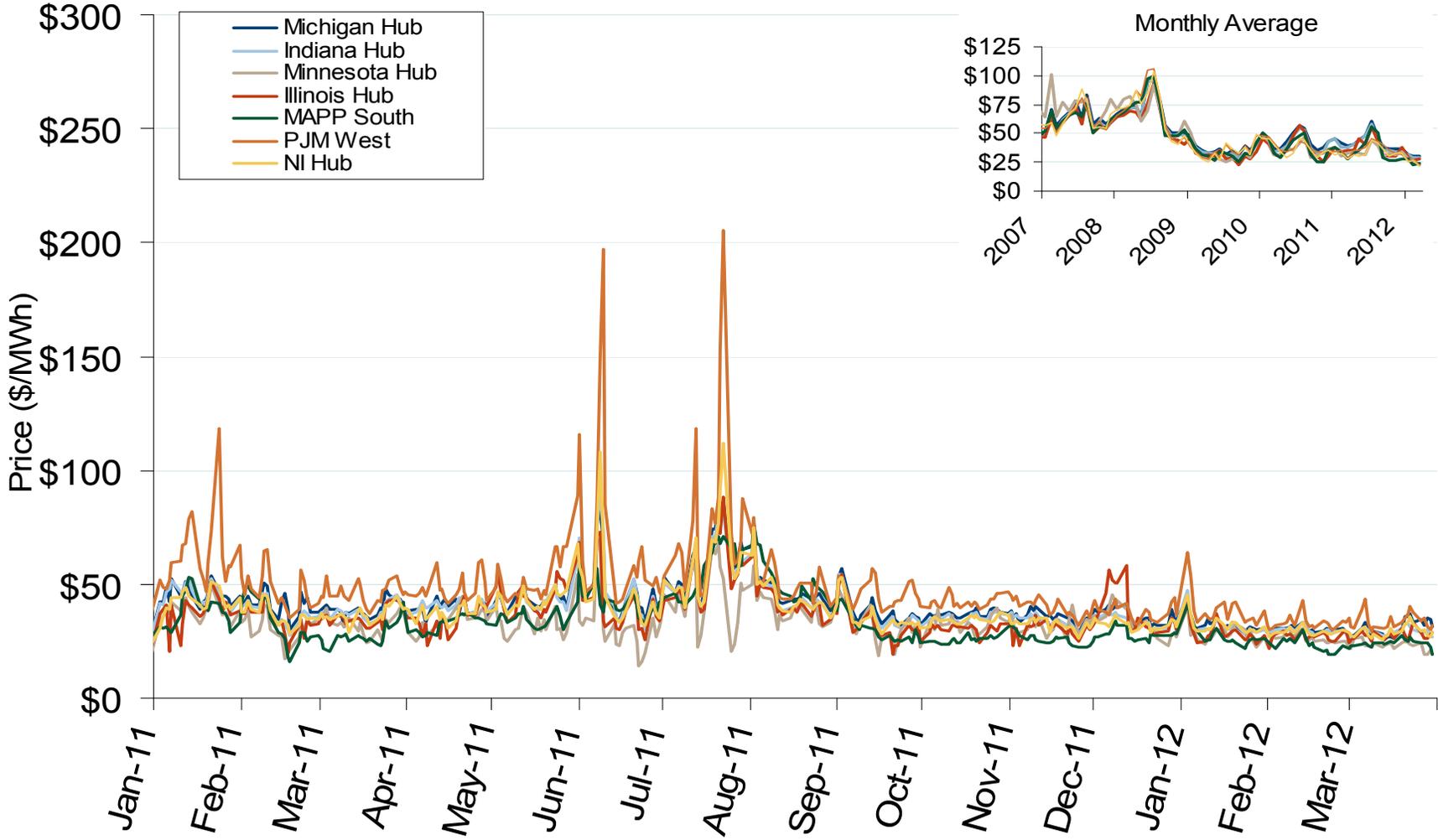
### MISO/PJM Index Day-Ahead On-Peak Prices



Source: Derived from *Platts* data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

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



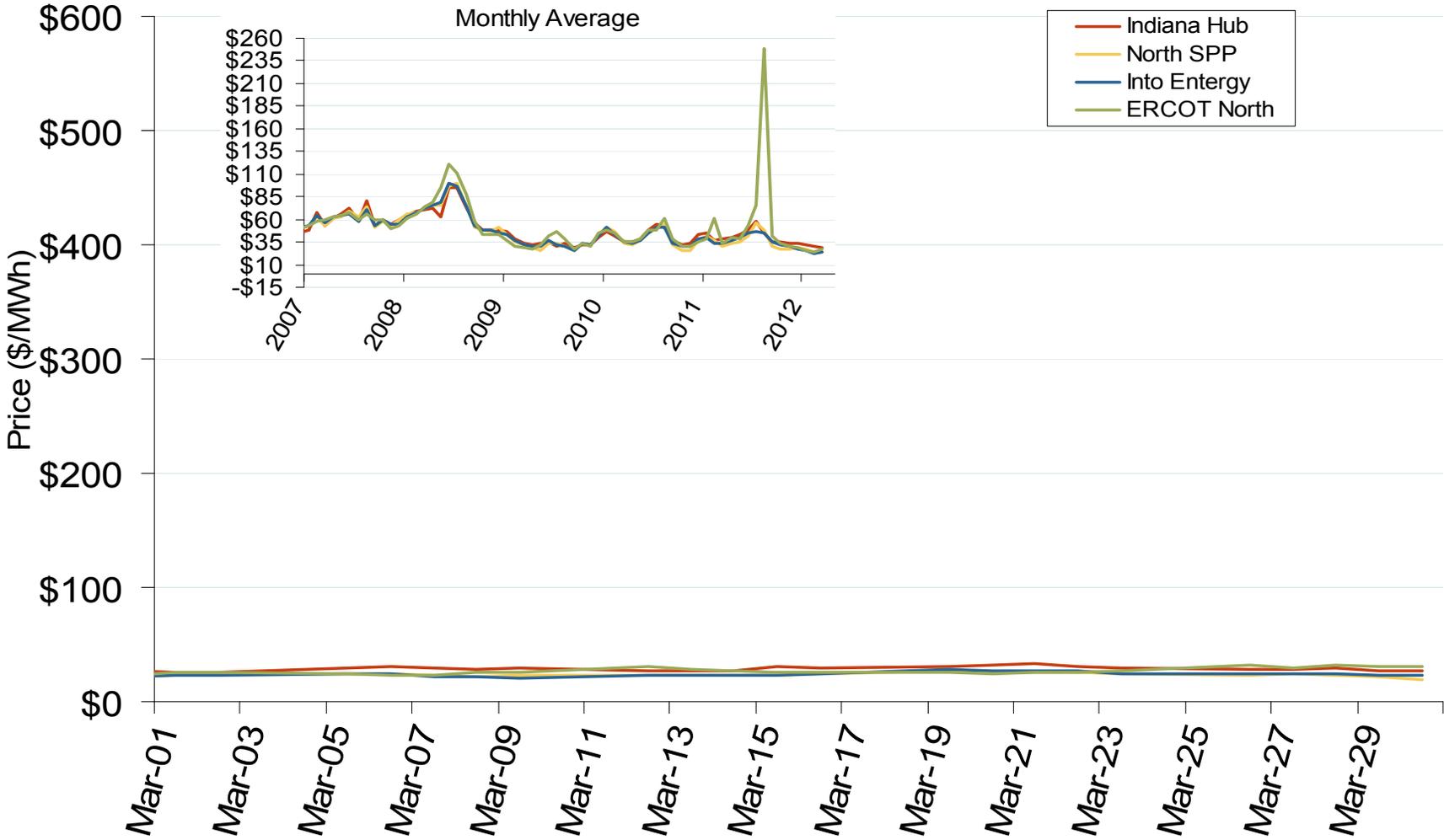
Source: Derived from *Platts* data  
April 2012 Midwest Snapshot Report

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Southwest Power Pool Electric Market: Last Month's Central Index Prices

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

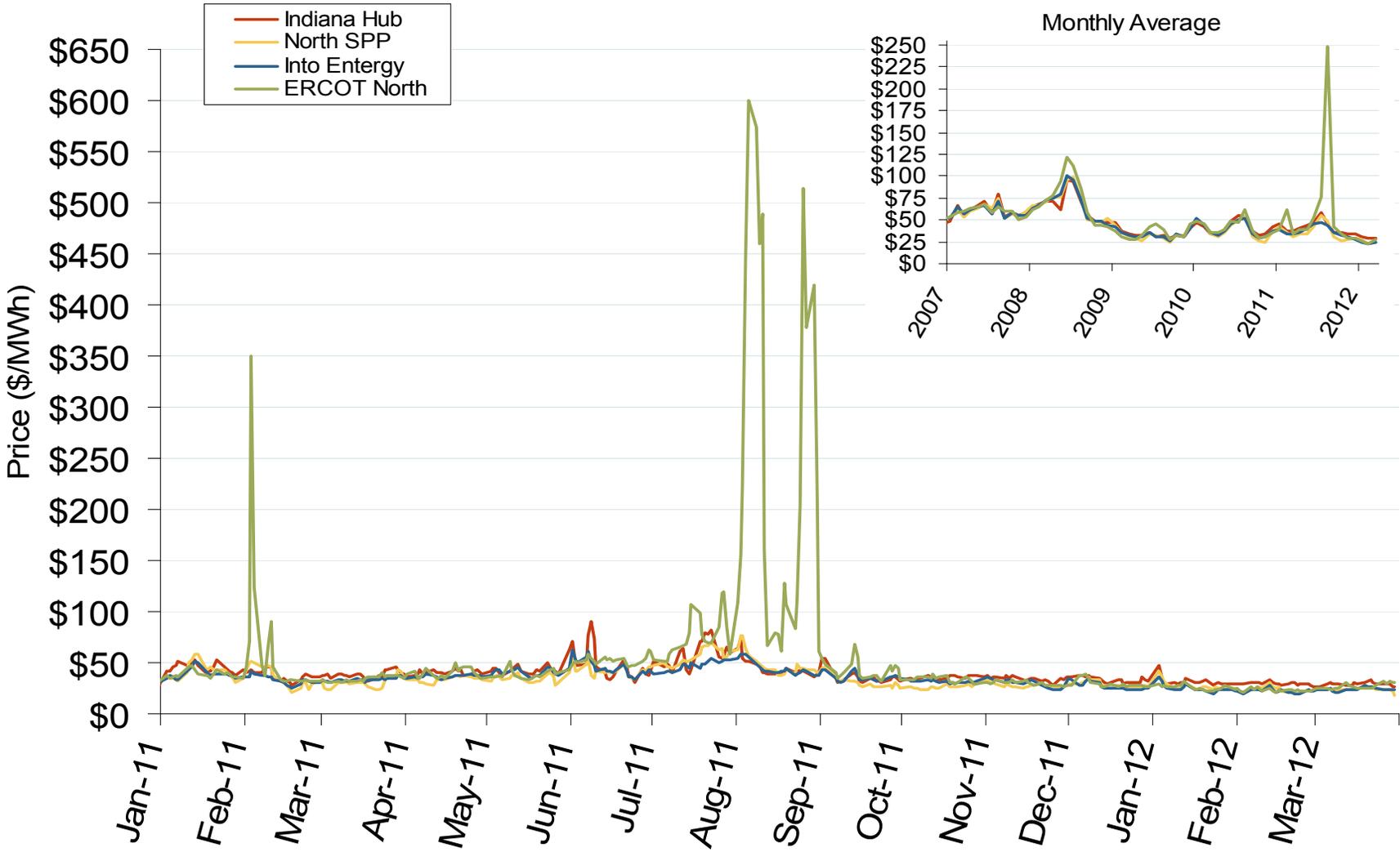
### Central Daily Index Day-Ahead On-Peak Prices



Source: Derived from *Platts* data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

### Central Daily Index Day-Ahead On-Peak Prices



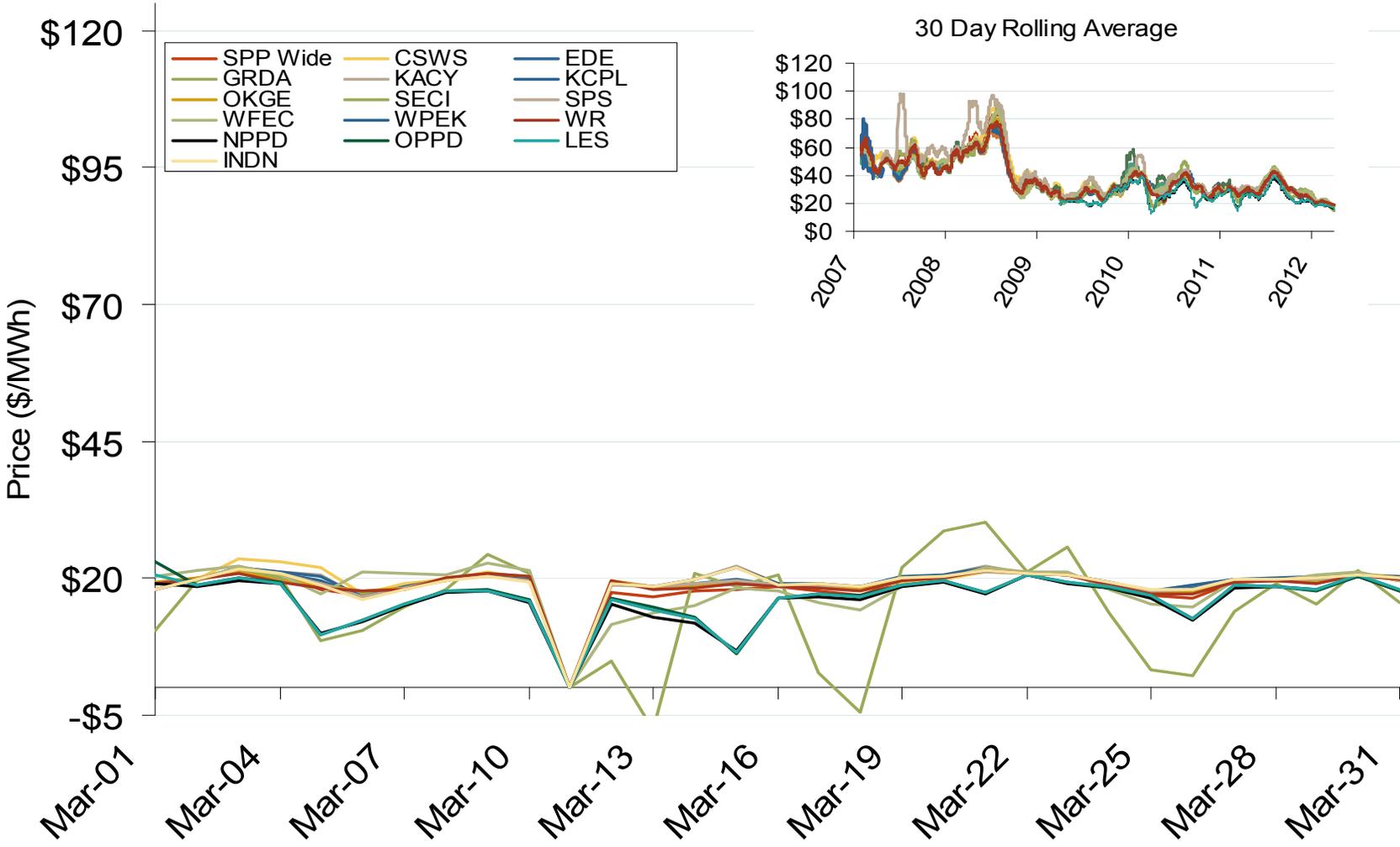
Source: Derived from Platts data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

Southwest Power Pool Electric Market: Last Month's RTO Prices

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Daily Average of SPP Real Time Prices - All Hours



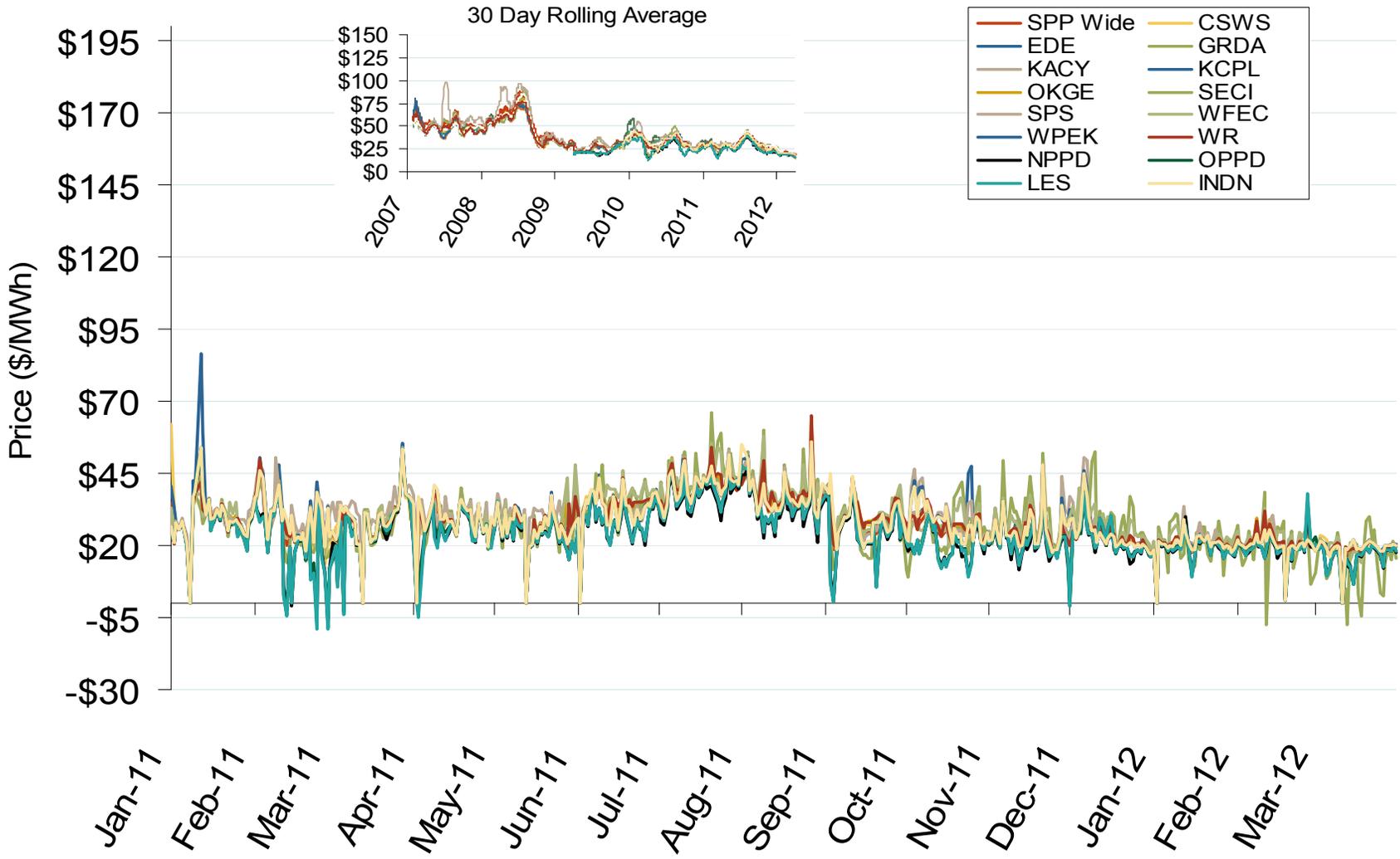
Note: ICE on-peak forward (physical) volumes are for Entergy, Southern and TVA and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

Source: Derived from SPP data

April 2012 Midwest Snapshot Report

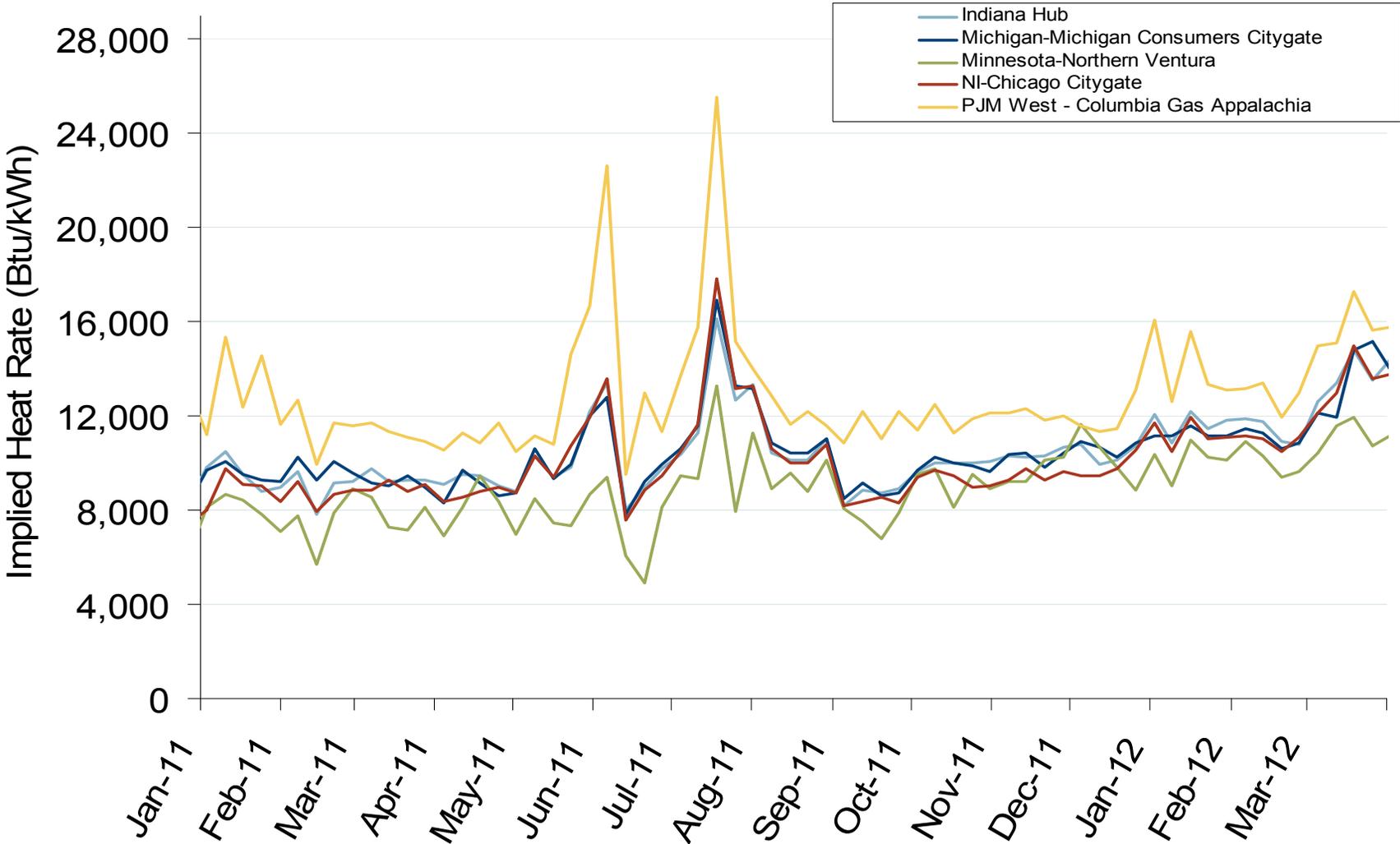
Updated: April 18, 2012

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



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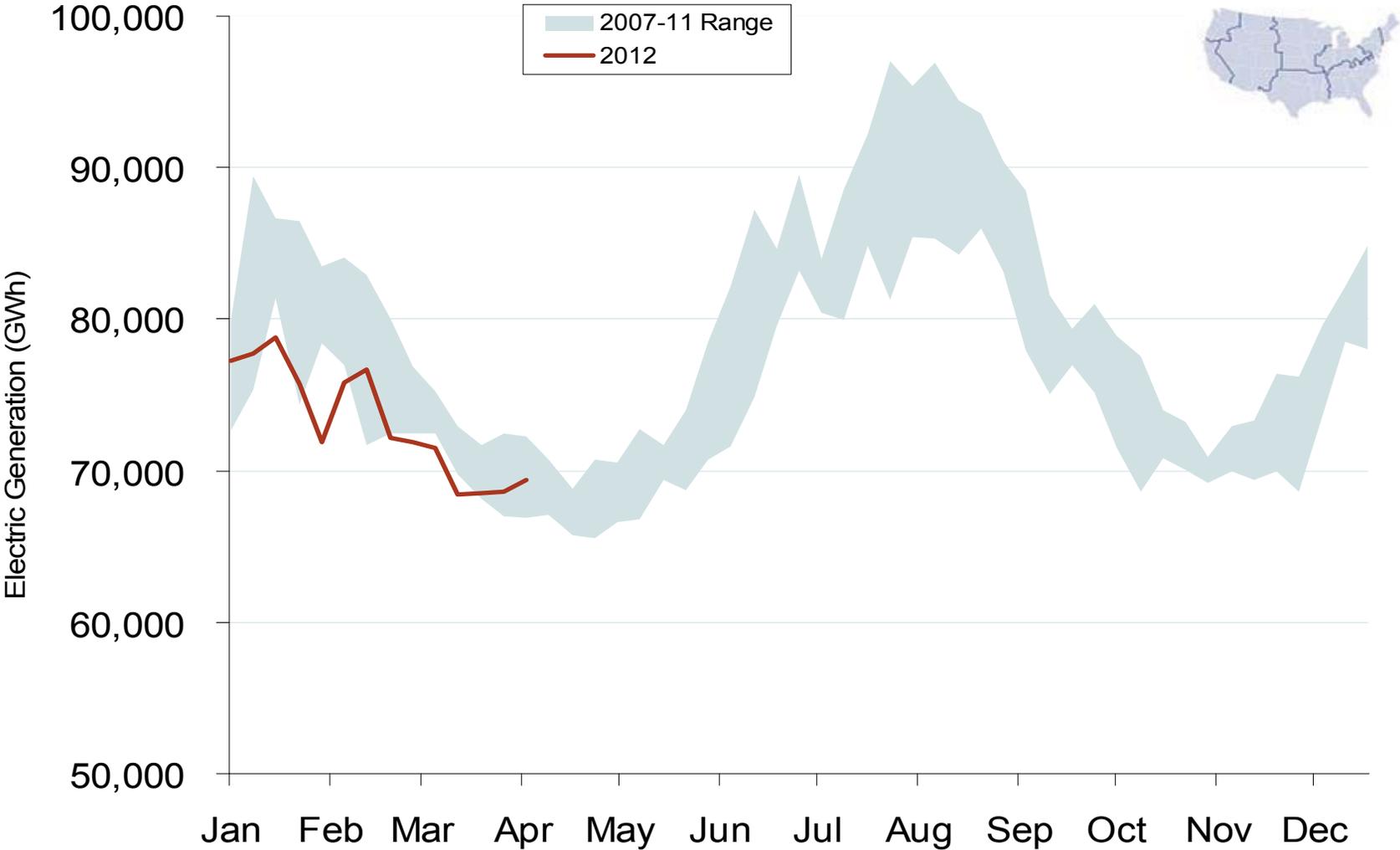
# Implied Heat Rates at MISO and PJM Hubs - Weekly Averages



Source: Derived from Platts on-peak electric and natural gas price data  
April 2012 Midwest Snapshot Report

Updated: April 06, 2012

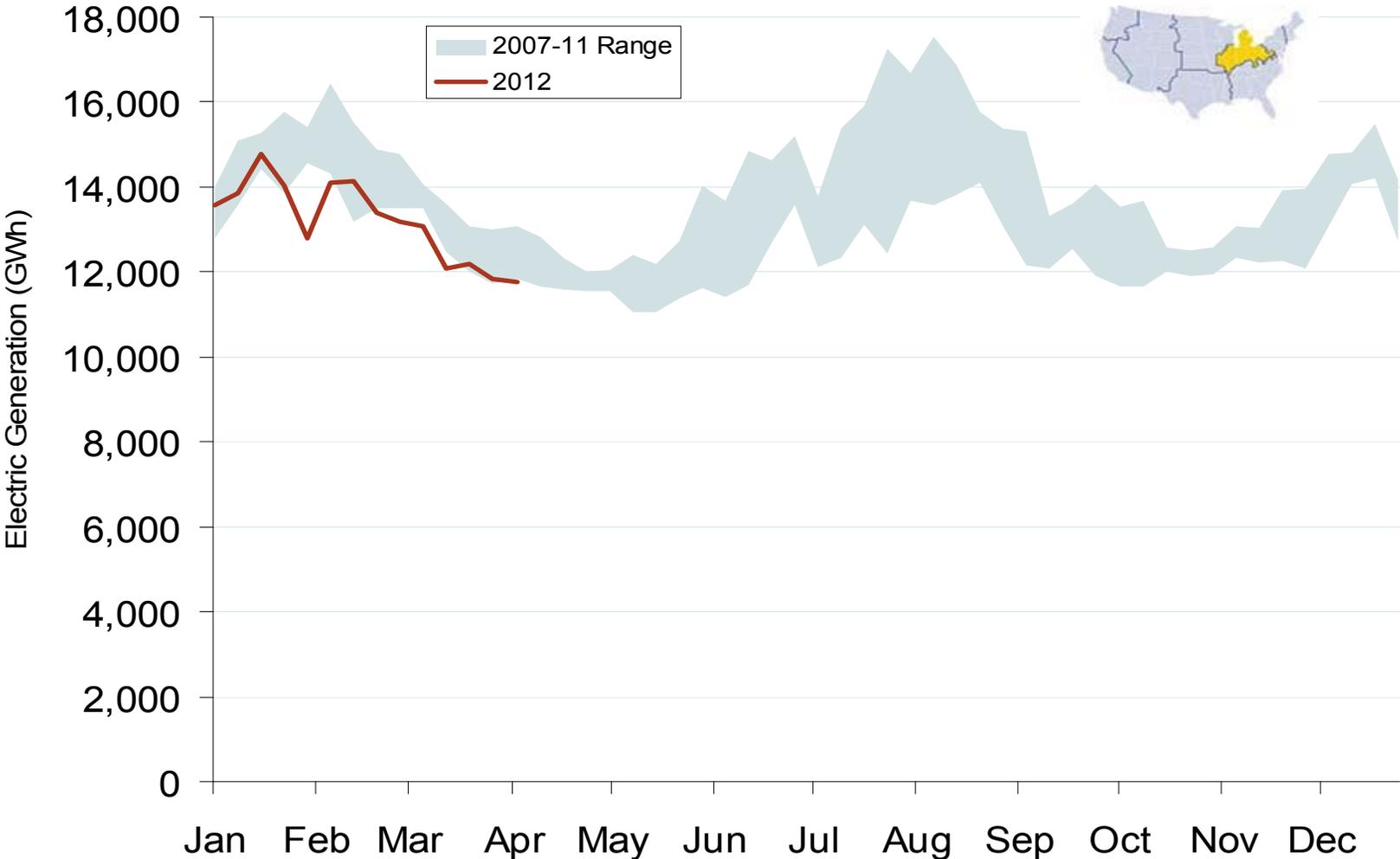
# Weekly U.S. Electric Generation Output



Source: Derived from *EEI* data  
April 2012 Midwest Snapshot Report

Updated: April 19, 2012

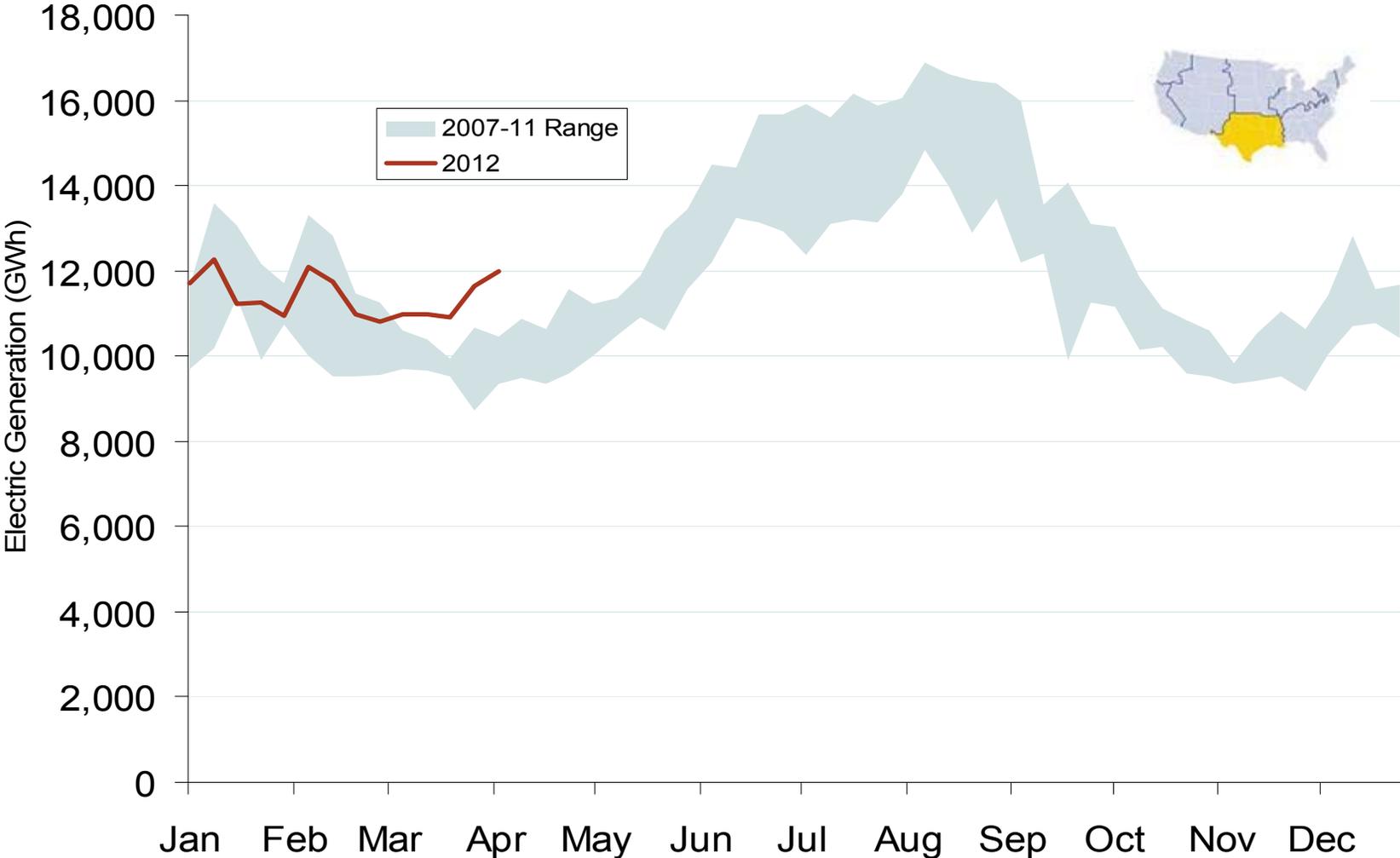
# Weekly Generation Output - Central Industrial Region



# Weekly Generation Output - West Central



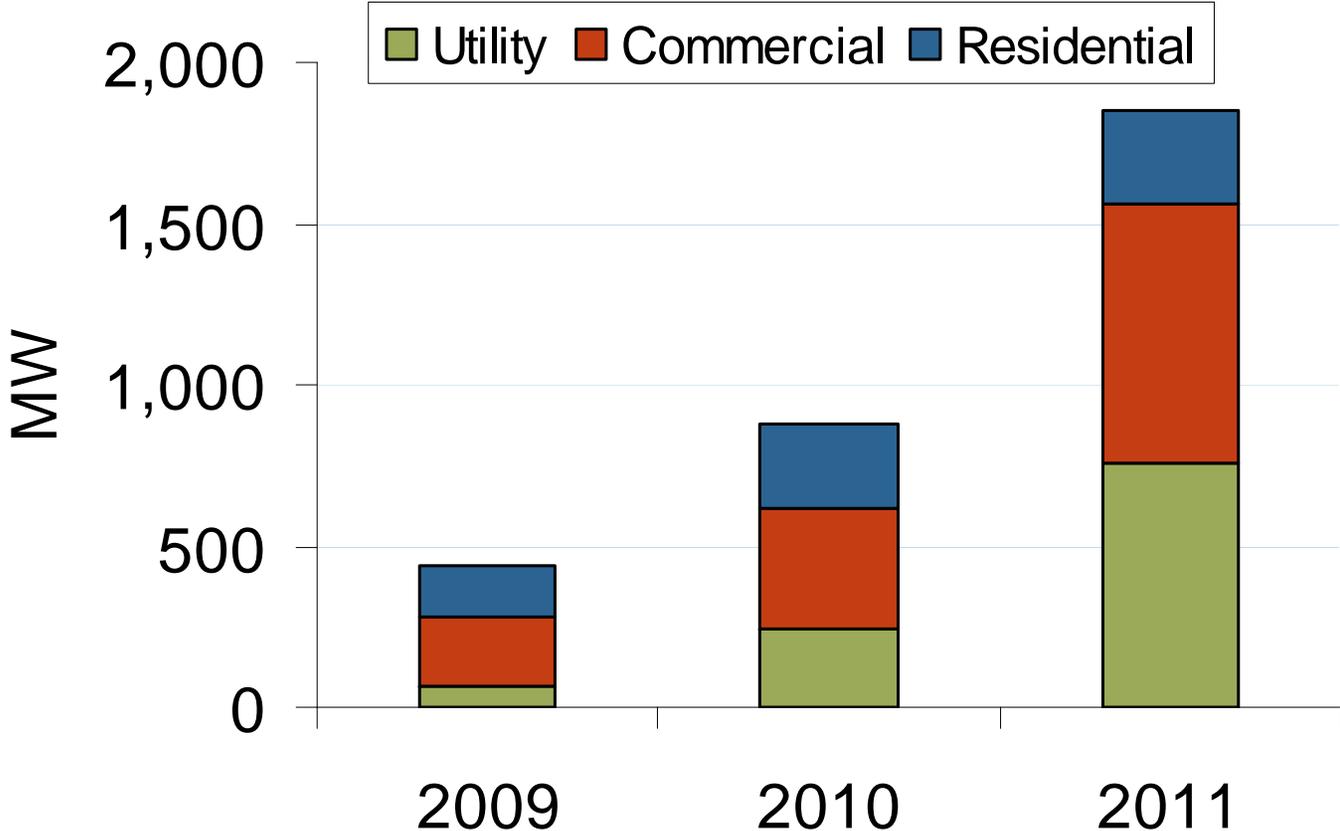
### Weekly Generation Output - South Central



Source: Derived from *EEI* data  
April 2012 Midwest Snapshot Report

Updated: April 19, 2012

# New Grid-connected PV Capacity Doubles Again in 2011



Source: derived from Solar Energy Industry Association and GTM Research data

Updated April 2, 2012