

OE ENERGY MARKET SNAPSHOT

Midwest States Version – August 2012 Data

Office of Enforcement
Federal Energy Regulatory Commission
September 2012



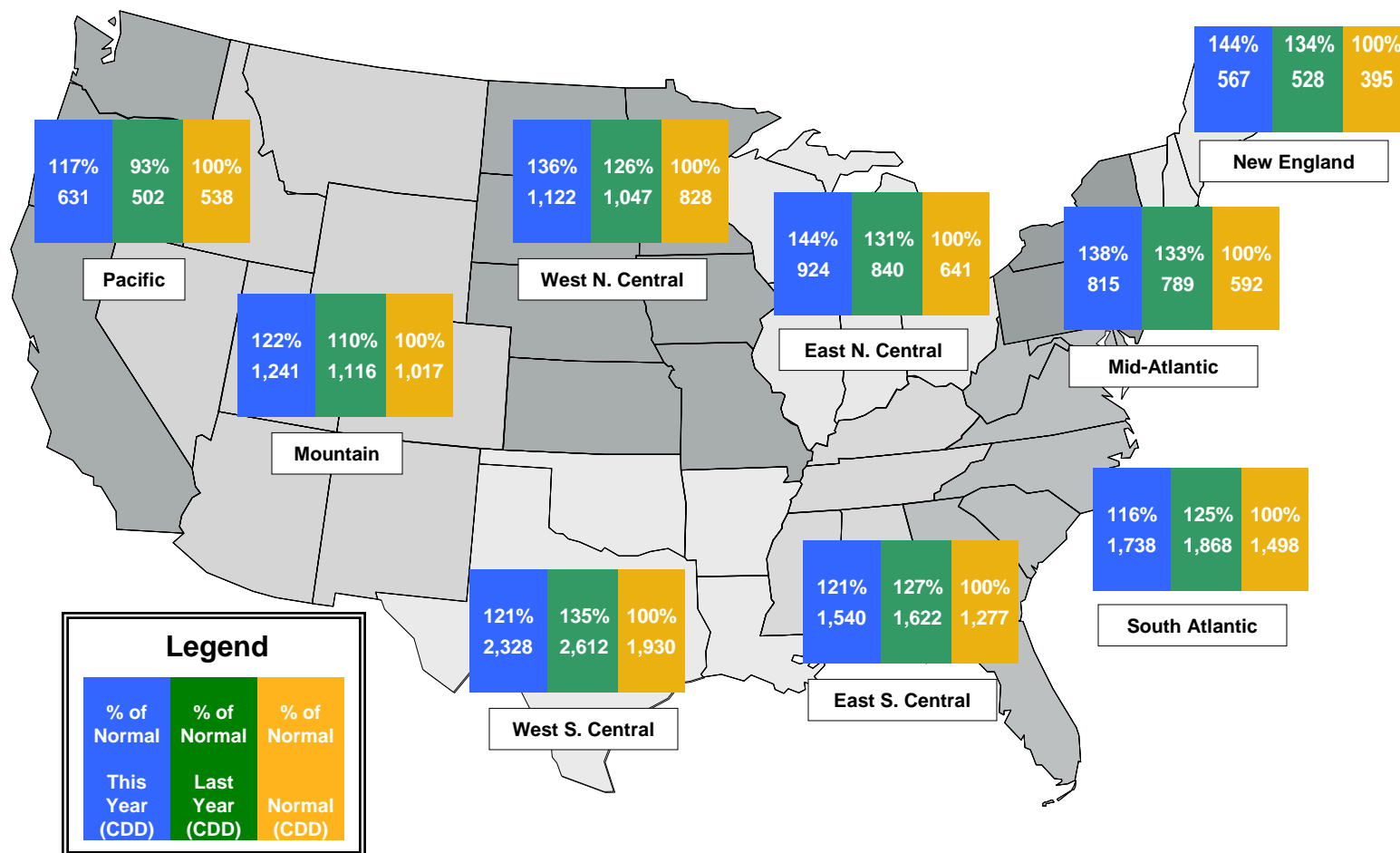
Infrastructure Report

August Infrastructure Report



Weather

Regional Cooling Degree Days – January to August 2012



Source: Derived from NOAA data. Normal is based on a 30-year average of cooling degree day data.
September 2012 Midwest Snapshot Report

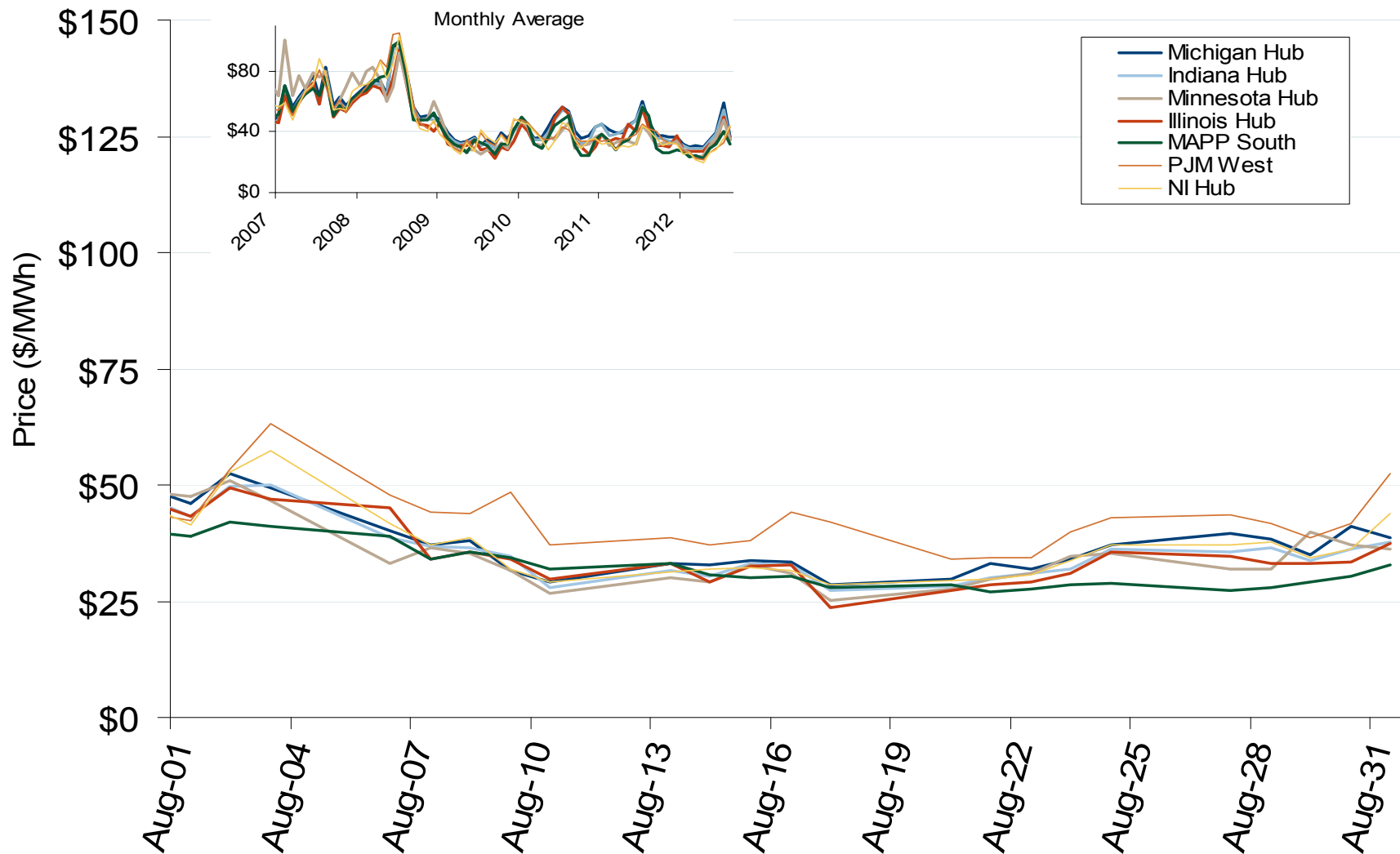


Electricity Markets

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

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

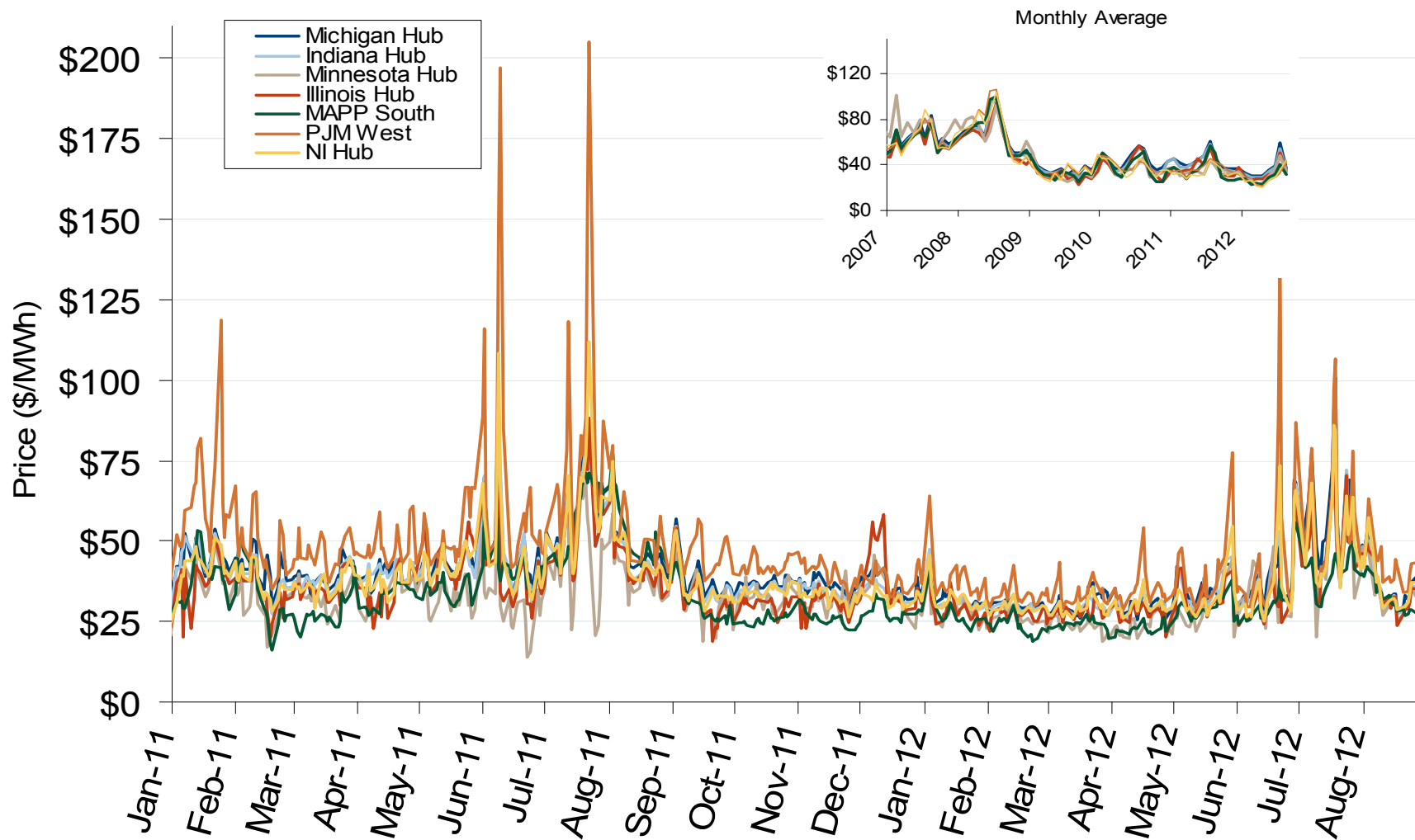
MISO/PJM Index Day-Ahead On-Peak Prices



Midwest Electric Market: MISO/PJM Index Prices

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

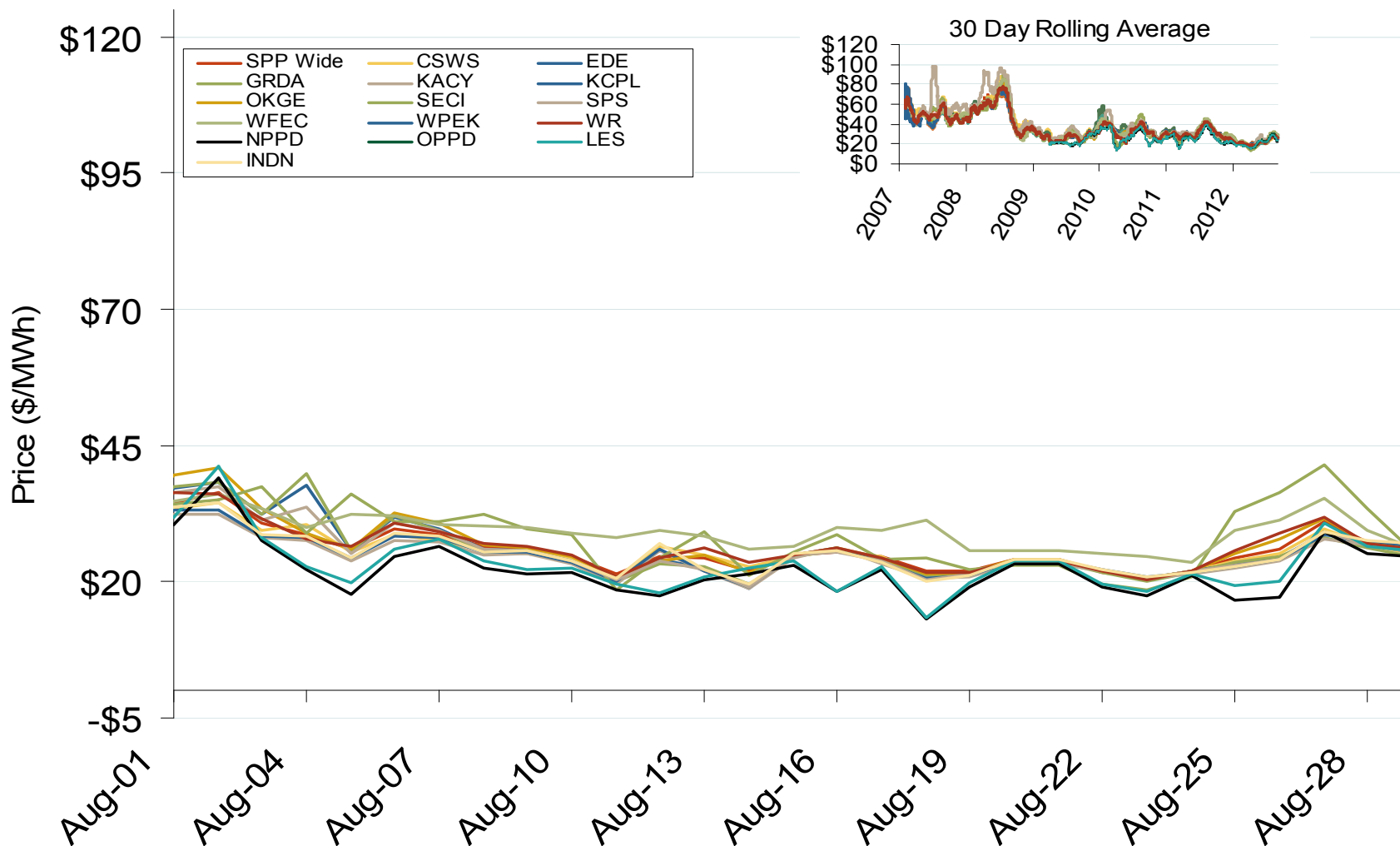
MISO/PJM Index Day-Ahead On-Peak Prices



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

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Daily Average of SPP Real Time Prices - All Hours



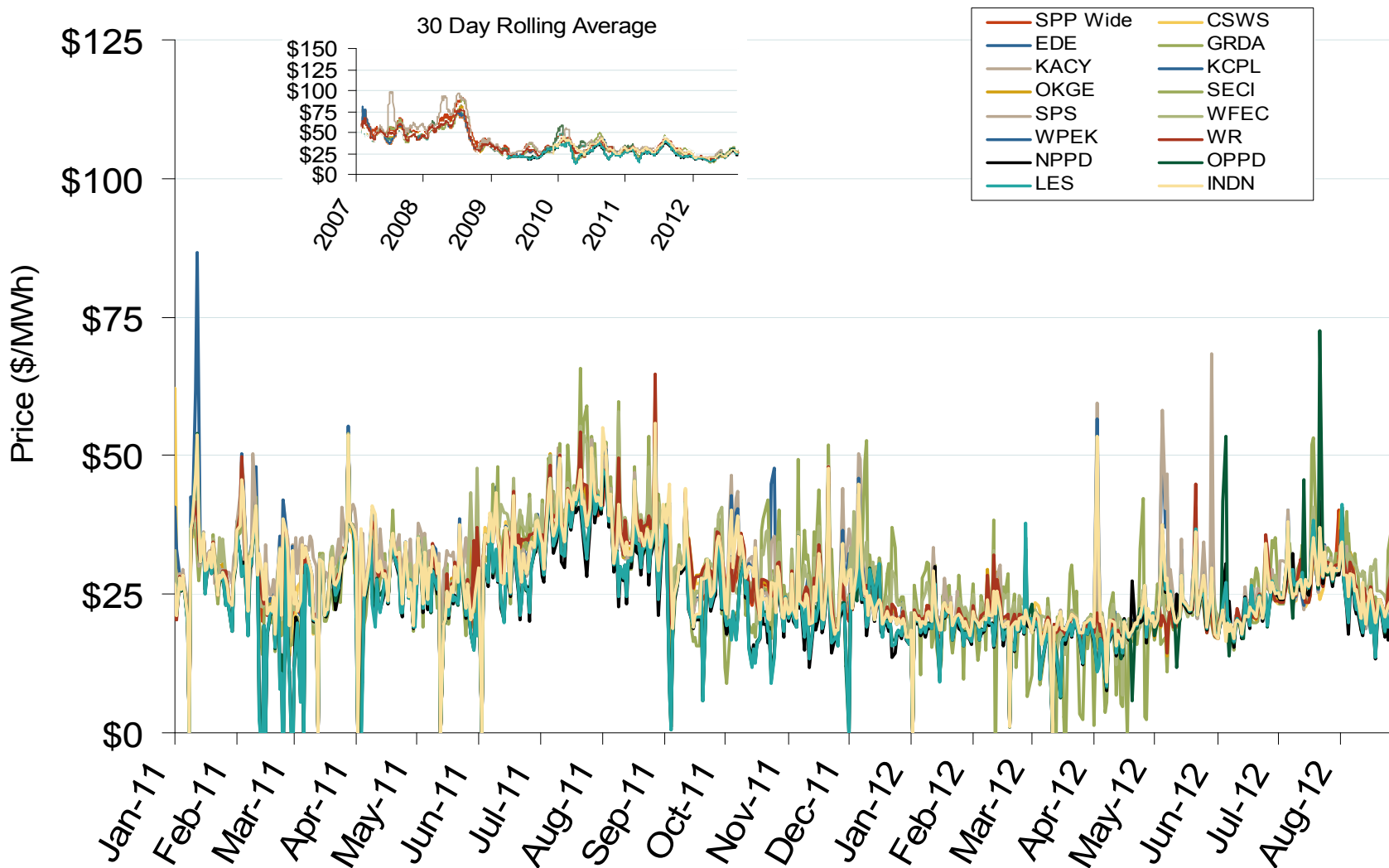
Note: ICE on-peak forward (physical) volumes are for Entergy, Southern and TVA and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

Source: Derived from SPP data

Southwest Power Pool Electric Market: RTO Prices

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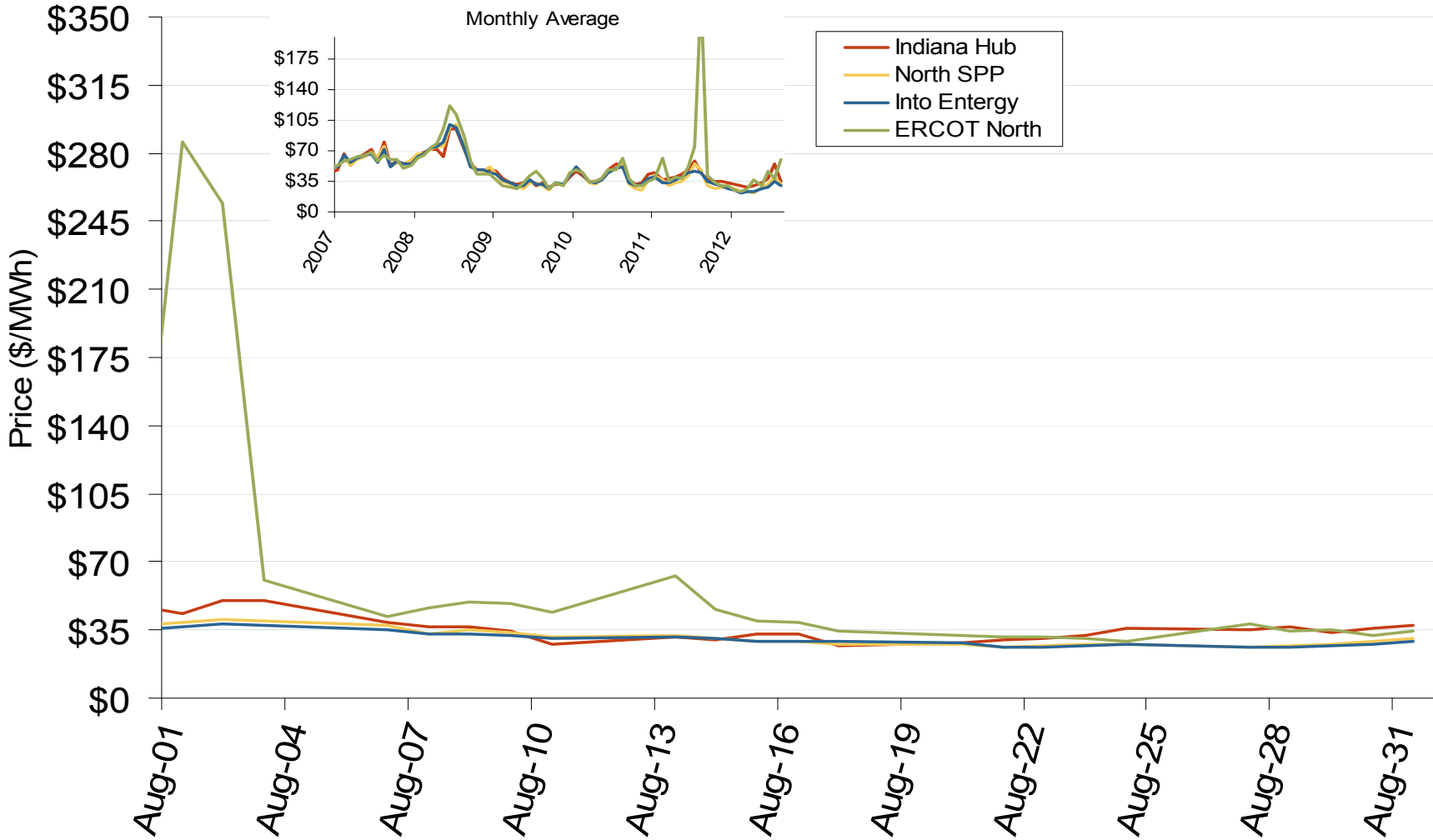
Daily Average of SPP Real Time Prices - All Hours



Midwest Electric Market: Last Month's Midwestern Index Prices

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Midwestern Daily Index Day-Ahead On-Peak Prices

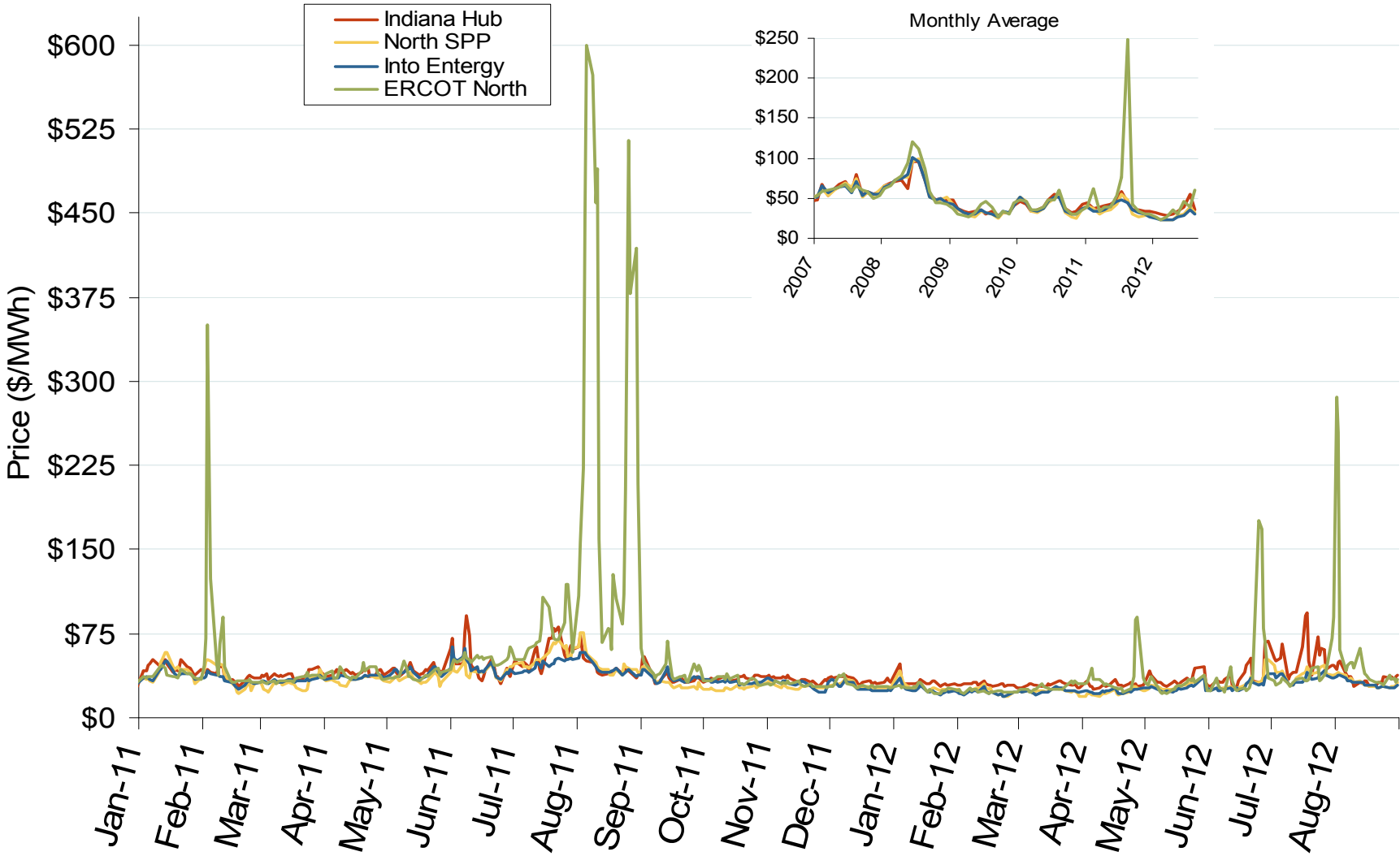


Source: Derived from Platts data
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Southeast Electric Market: Midwestern Index Prices

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Midwestern Daily Index Day-Ahead On-Peak Prices



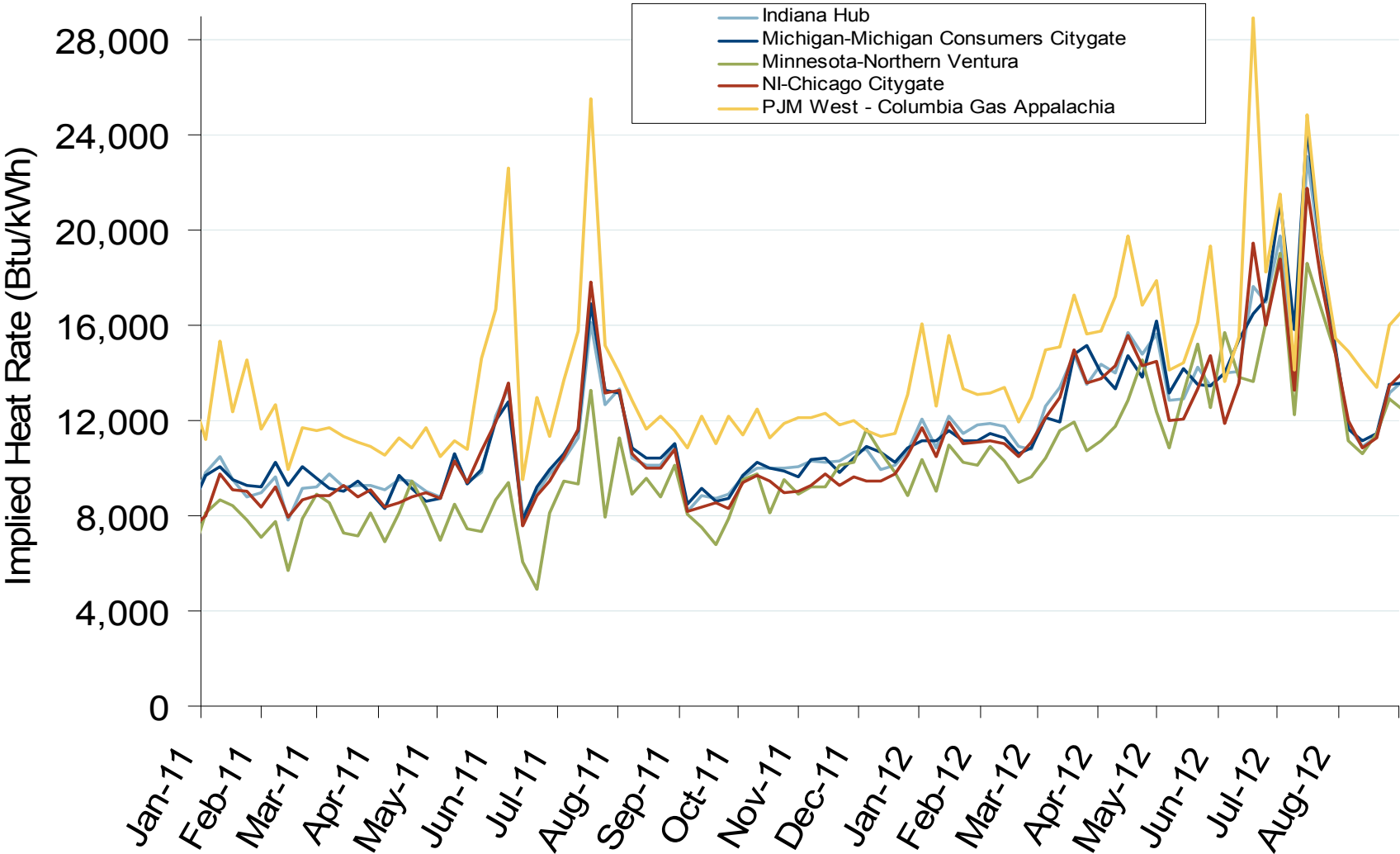
Source: Derived from *Platts* data
September 2012 Midwest Snapshot Report

Updated: September 04, 2012

Midwest Electric Market: MISO/PJM Implied Heat Rates

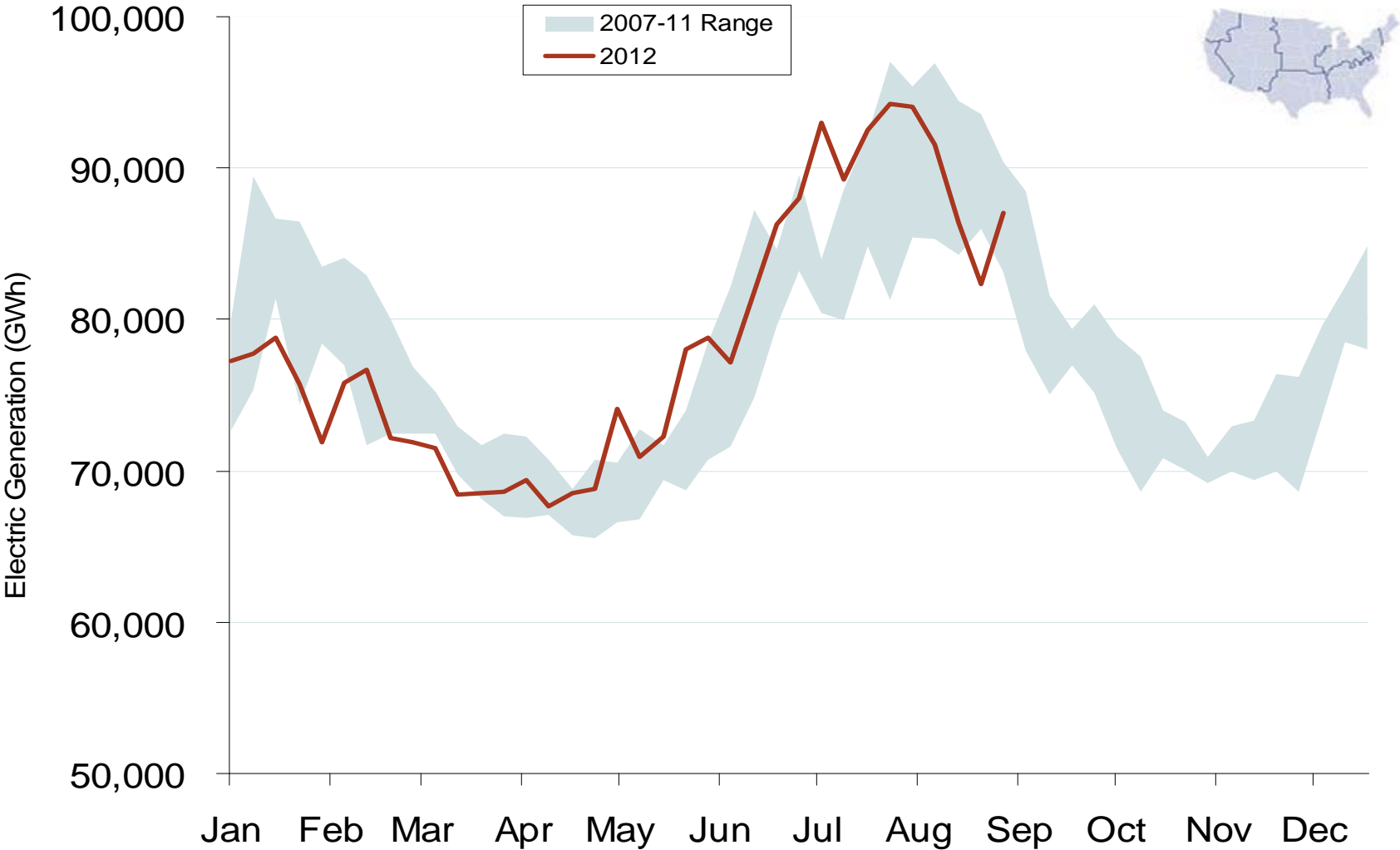
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Implied Heat Rates at MISO and PJM Hubs - Weekly Averages



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

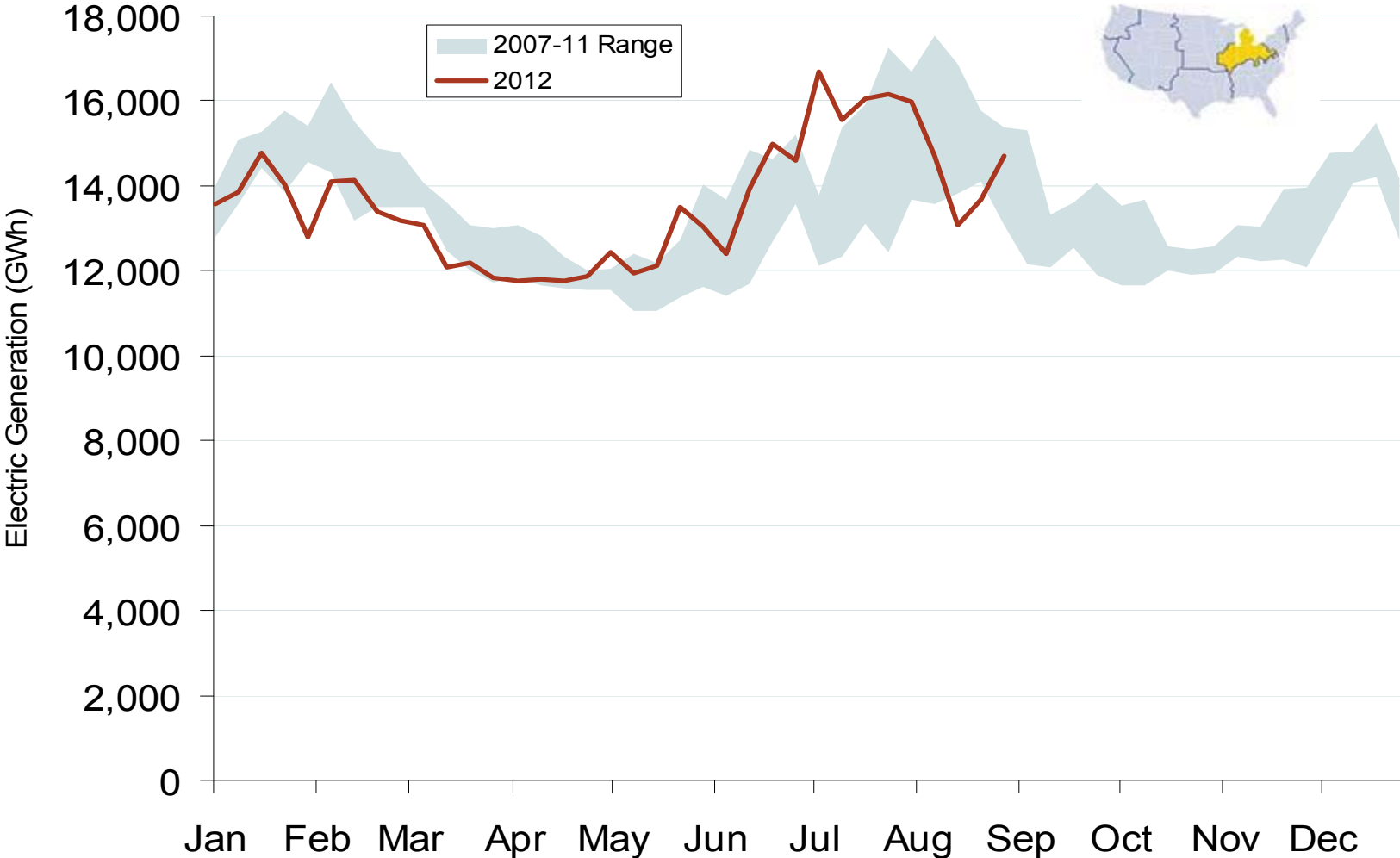
Weekly U.S. Electric Generation Output



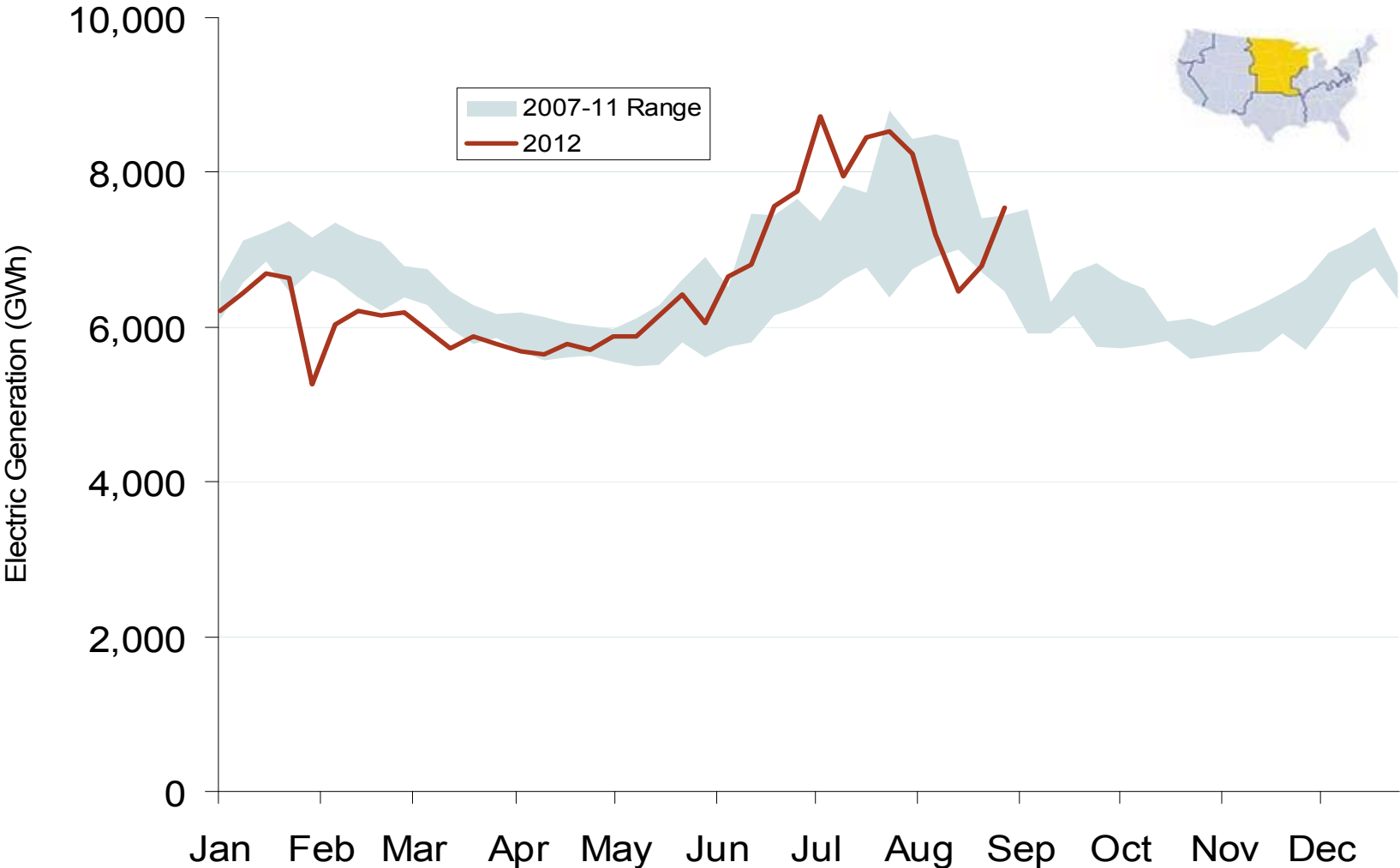
Source: Derived from *EEI* data
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

Weekly Generation Output - Central Industrial Region



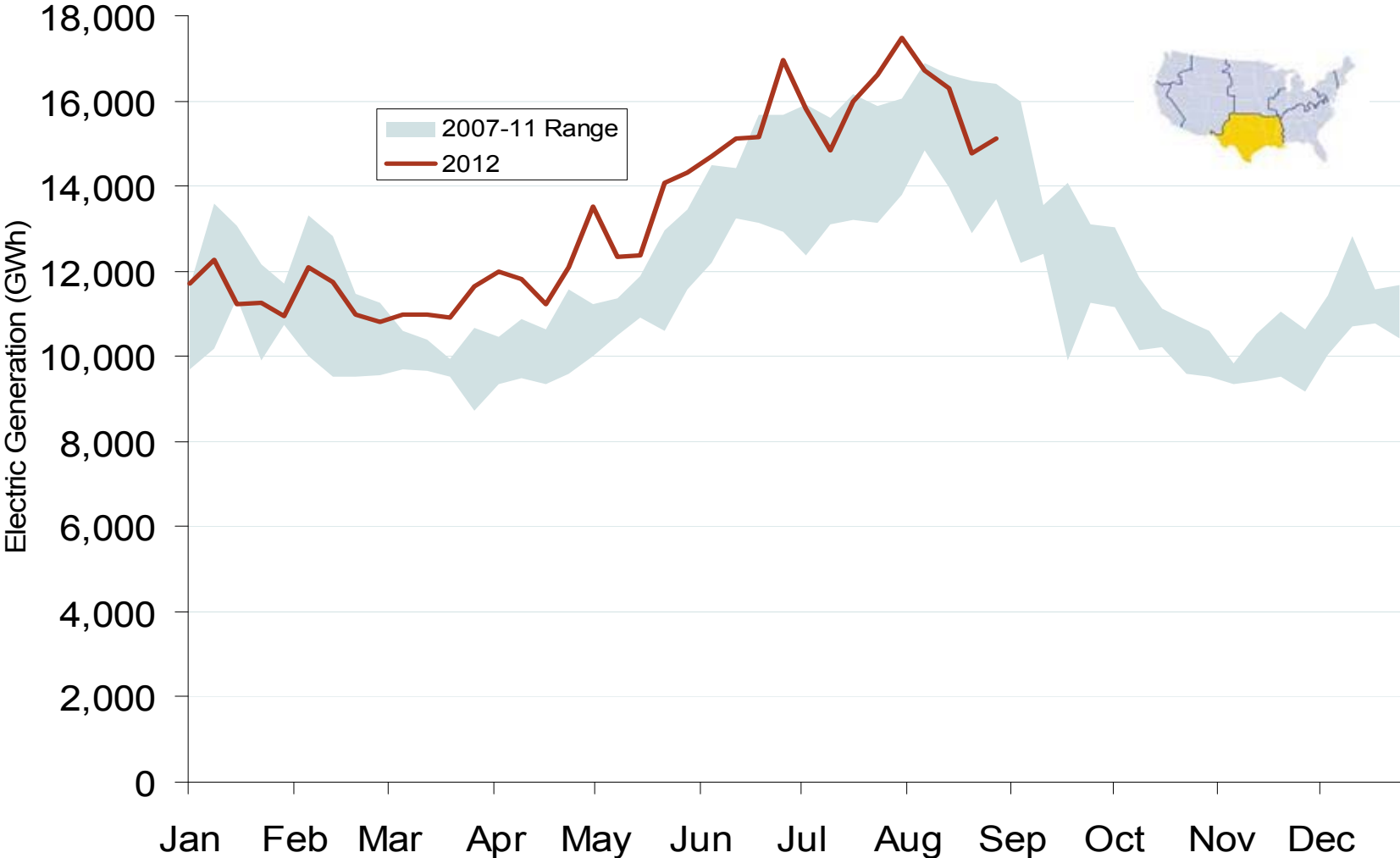
Weekly Generation Output - West Central



Southwest Power Pool Electric Market: Generation Output

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Weekly Generation Output - South Central



Source: Derived from EEI data
September 2012 Midwest Snapshot Report

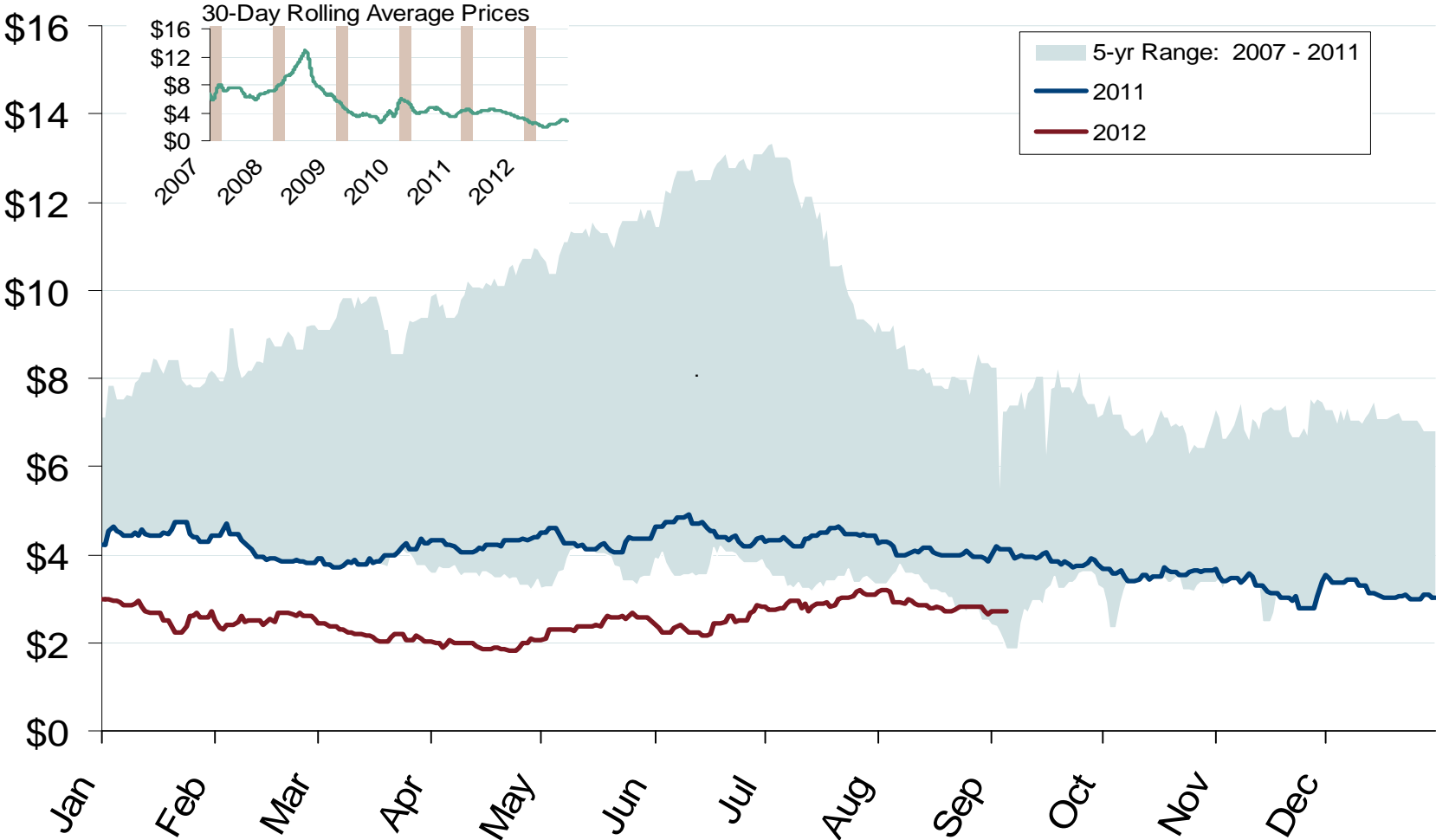


Natural Gas and Fuels Markets

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

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Henry Hub Natural Gas Daily Spot Prices



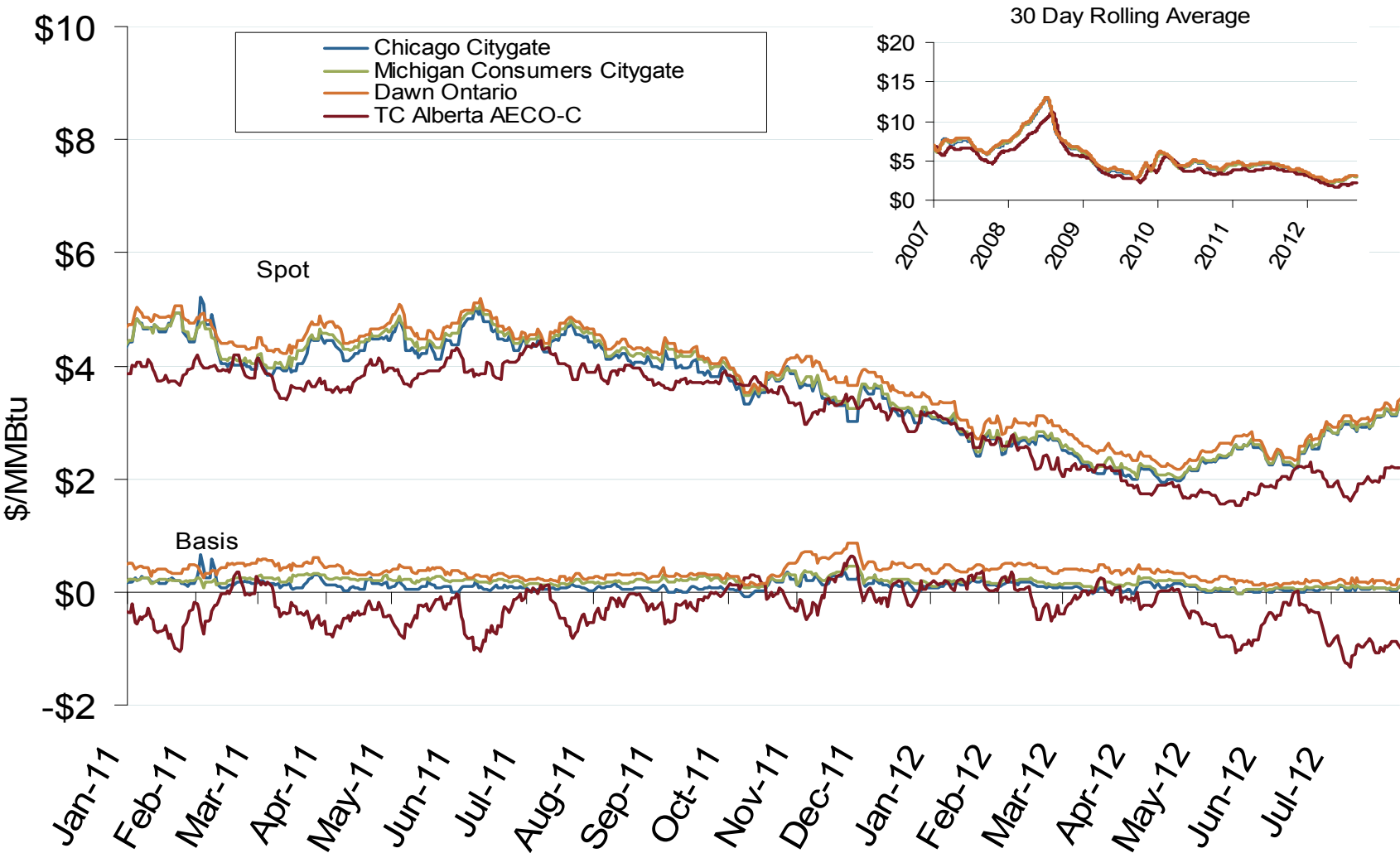
Source: Derived from *Platts* data
September 2012 Midwest Snapshot Report

Updated: September 10, 2012

Midwest Natural Gas Market: Spot Prices and Basis

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Midwestern Day-Ahead Hub Spot Prices and Basis



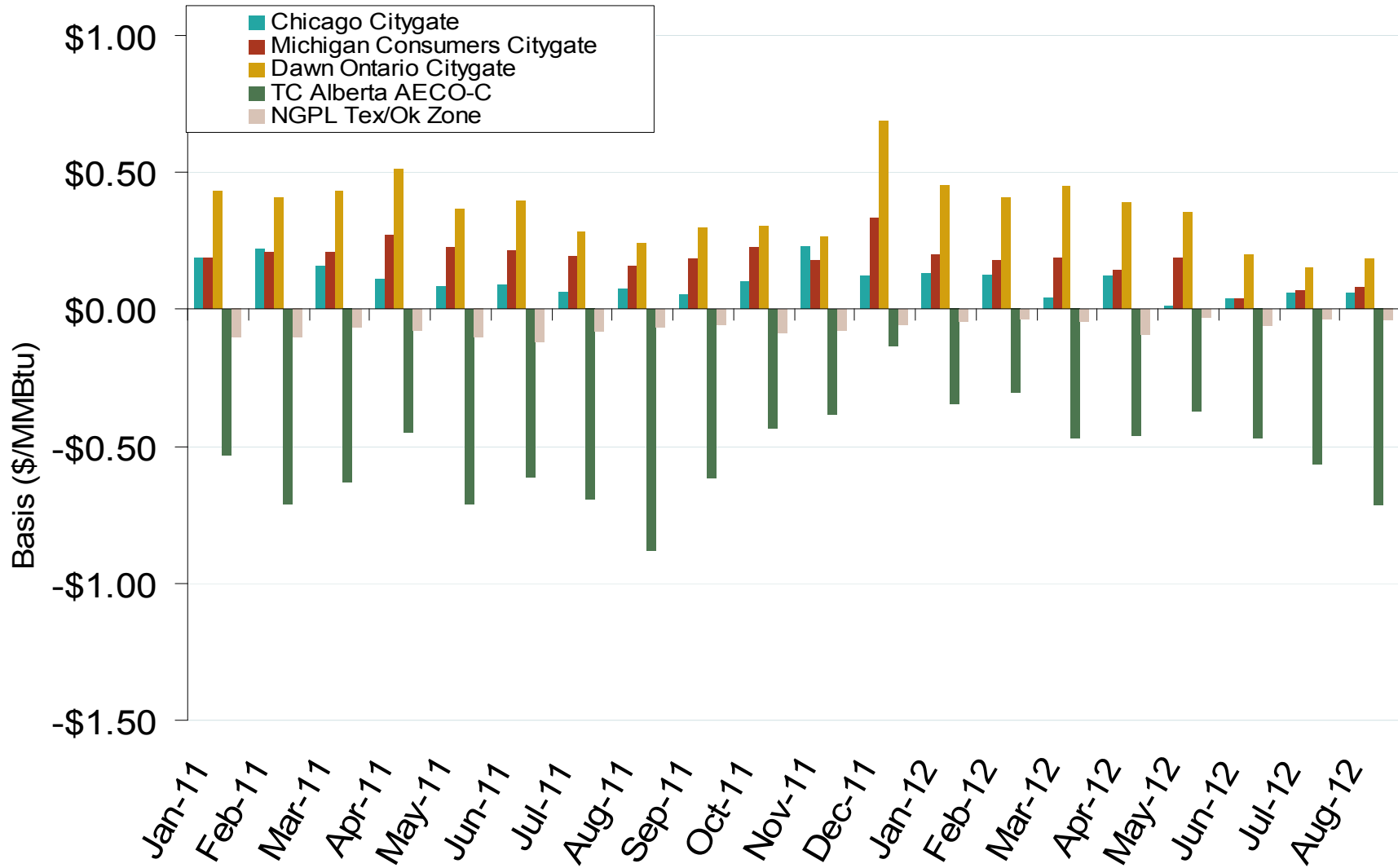
Source: Derived from Platts data
September 2012 Midwest Snapshot Report

Updated: September 04, 2012

Midwest Natural Gas Market: Average Basis to Henry Hub

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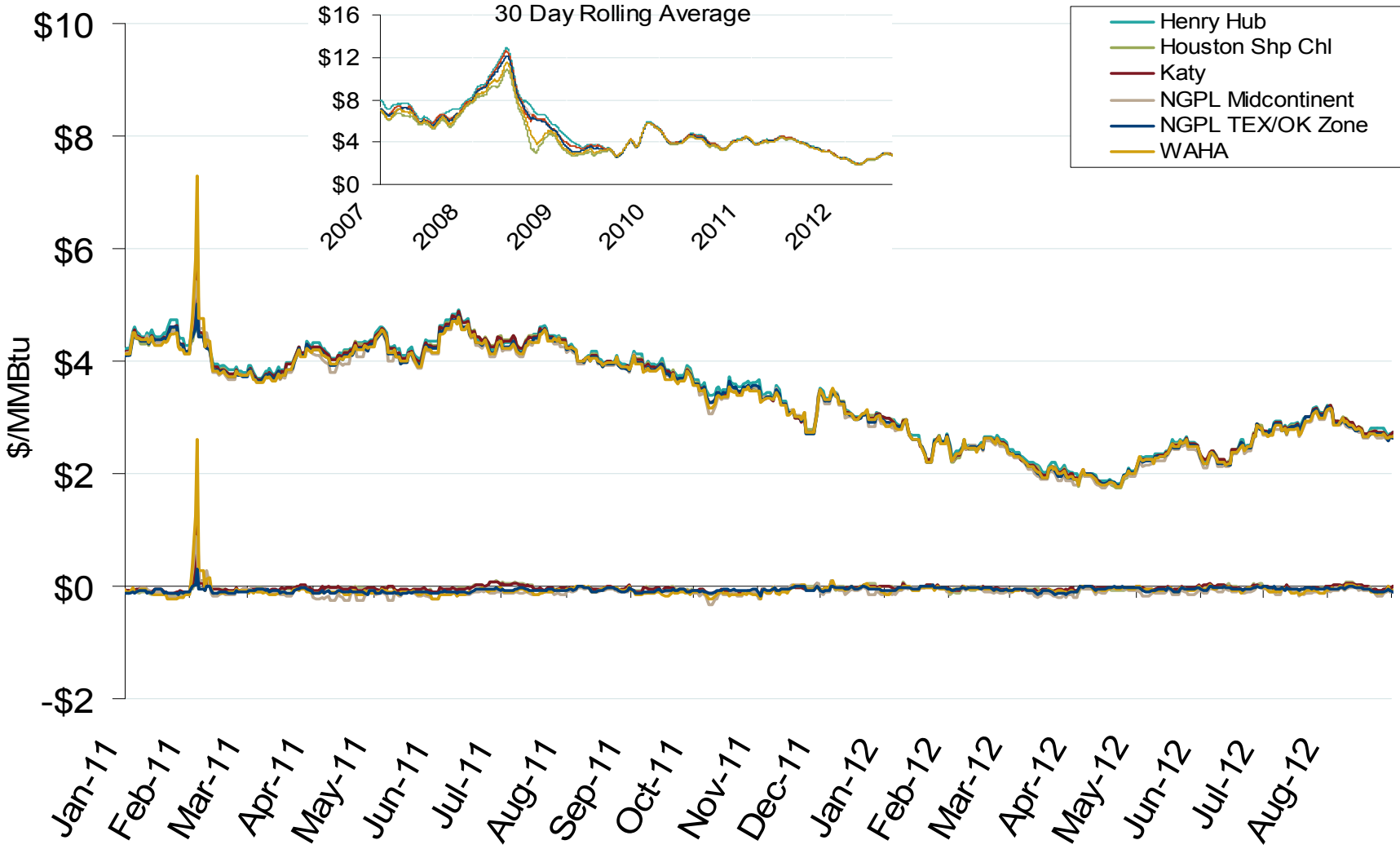
Midwestern Monthly Average Basis Value to Henry Hub



South Central Natural Gas Market: Spot Prices and Basis

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Gulf Day-Ahead Hub Spot Prices and Basis



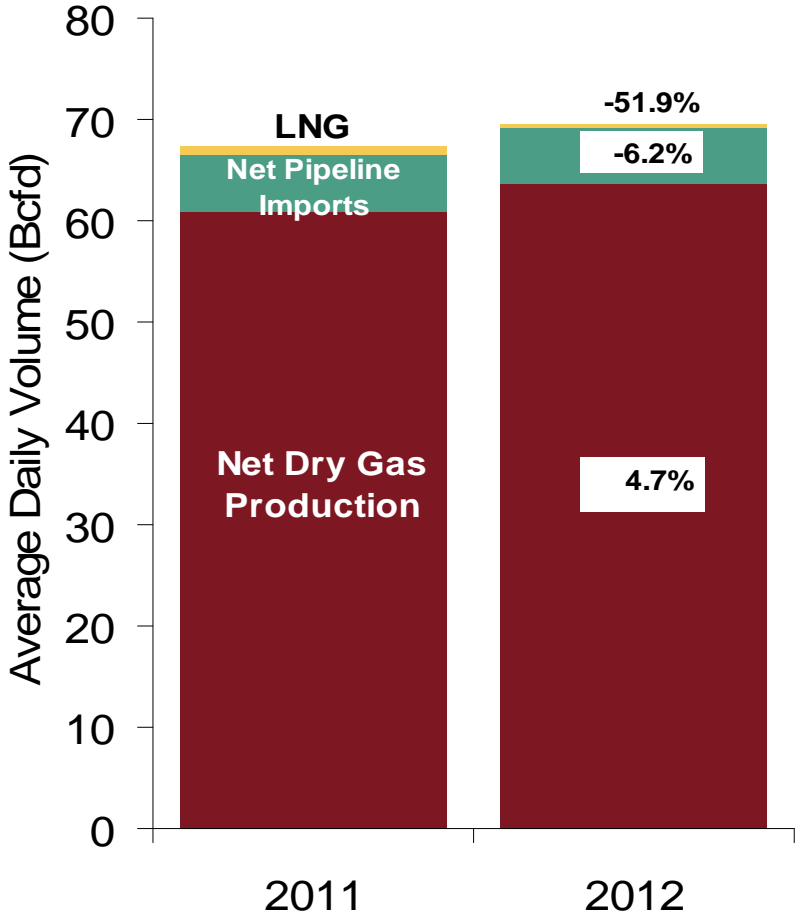
Source: Derived from *Platts* data
September 2012 Midwest Snapshot Report

Updated: September 04, 2012

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

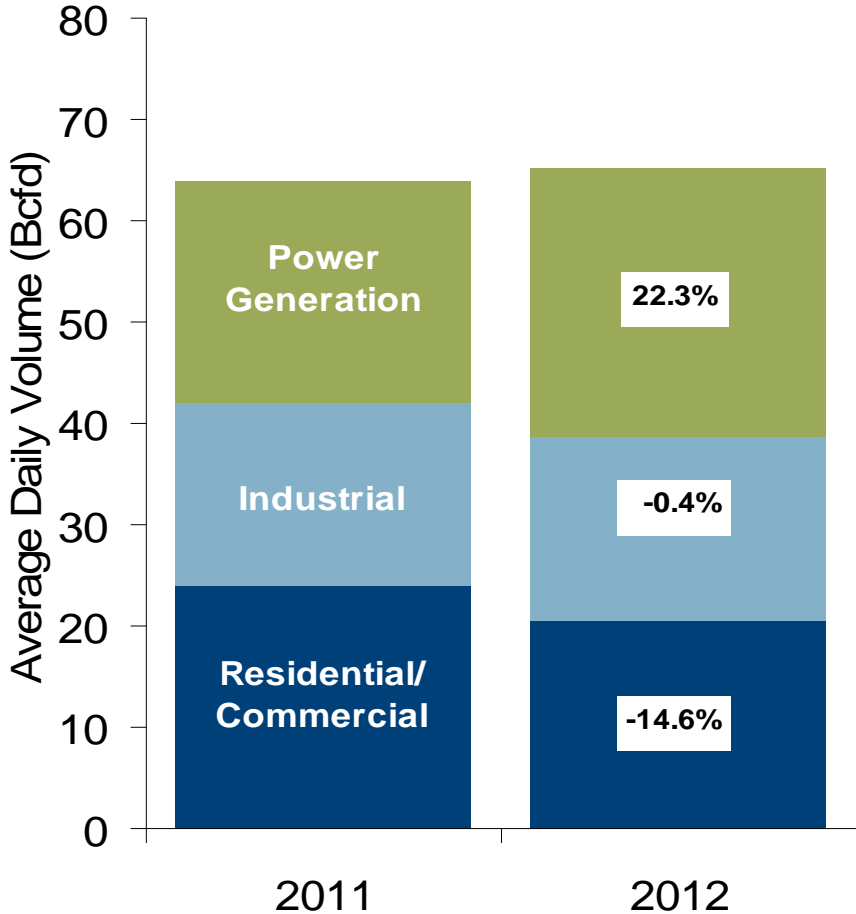
US Natural Gas Supply

Total Change in Supply 2.9%



US Natural Gas Demand

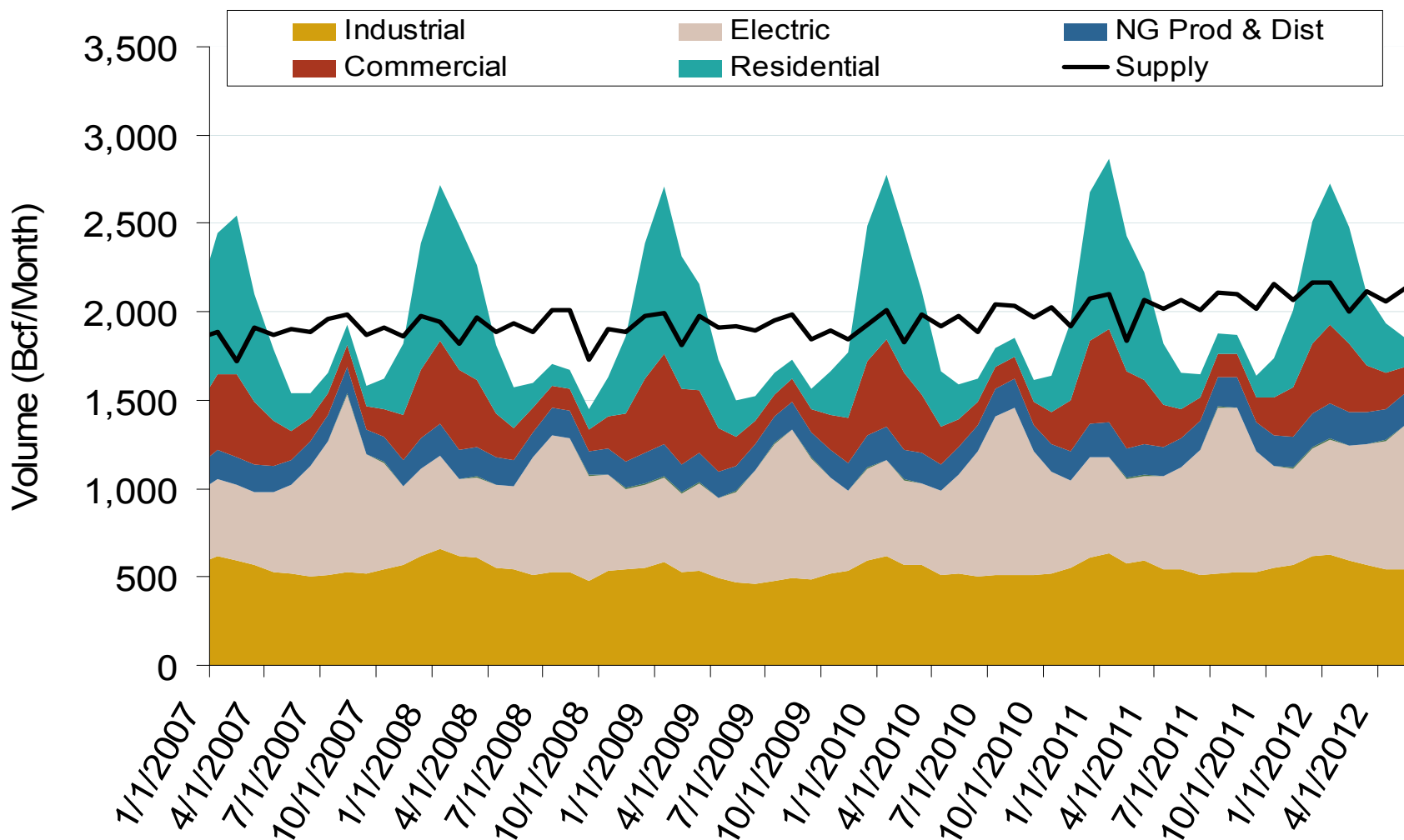
Total Change in Demand 2.7%



Natural Gas market Overview: Consumption by Sector

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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

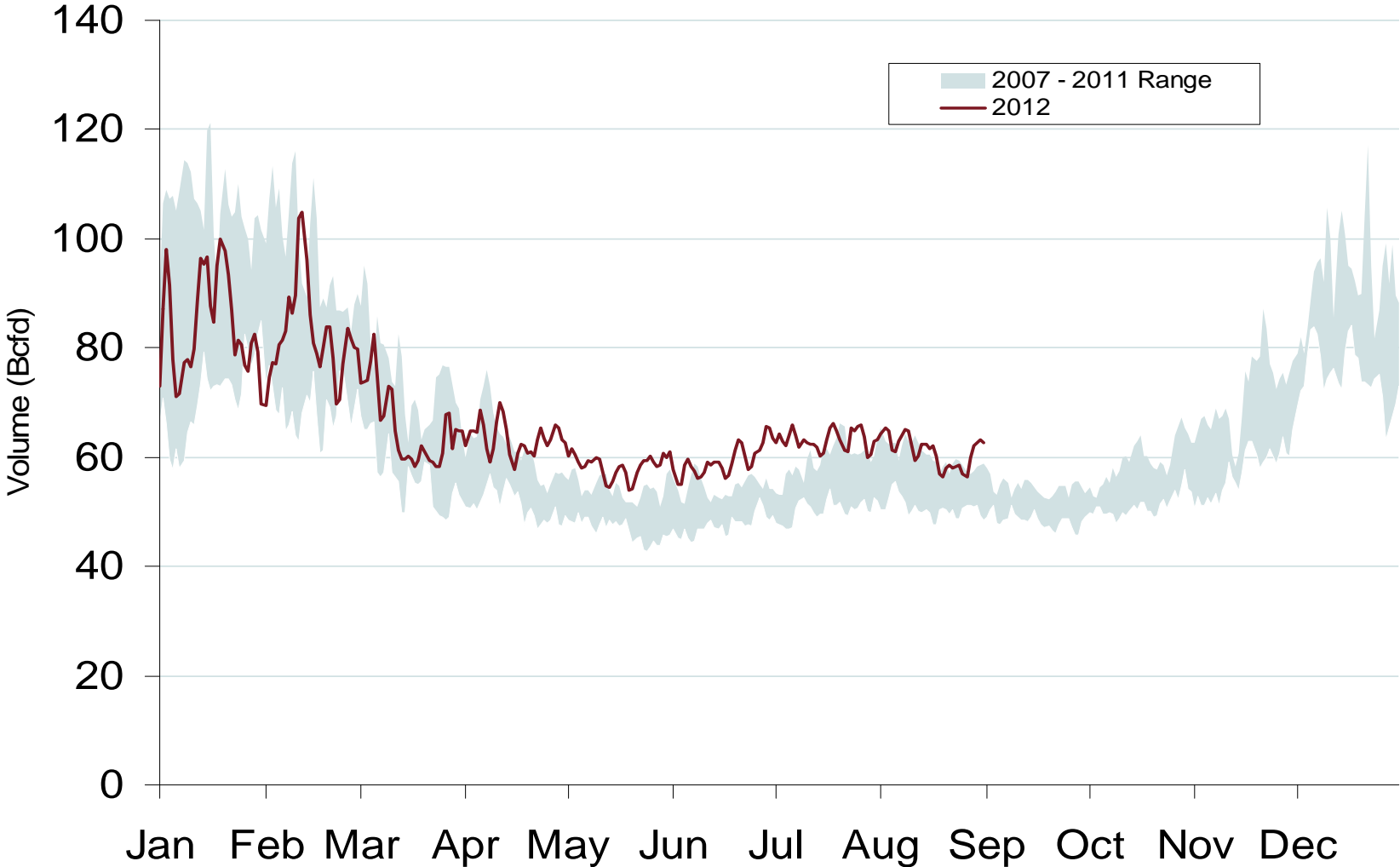
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

Natural Gas Market Overview: Total US Gas Demand

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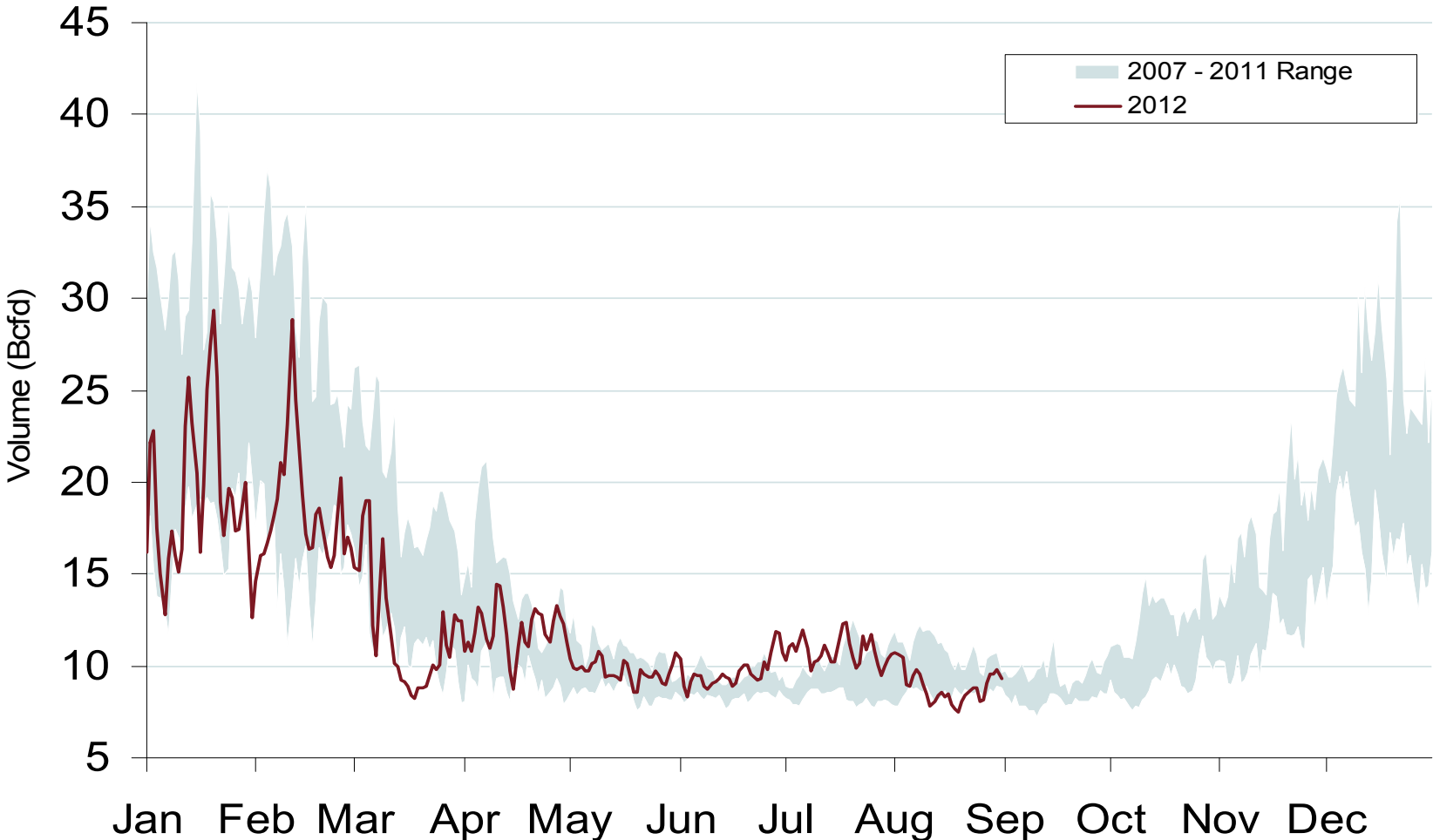
Total U.S. Natural Gas Demand All Sectors



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

Updated: September 06, 2012

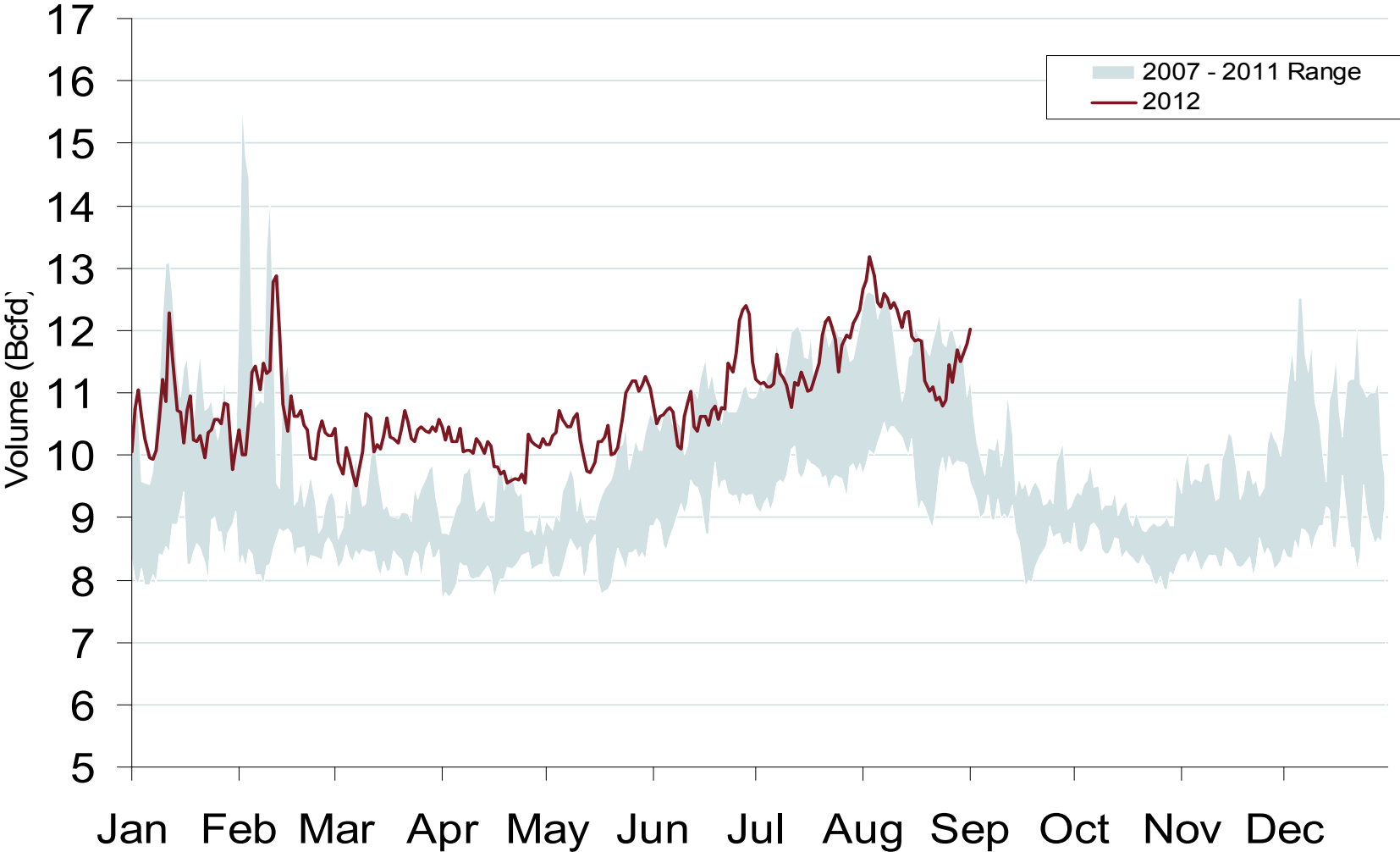
Daily Midwest Natural Gas Demand All Sectors



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

Updated: September 06, 2012

Daily Gulf Natural Gas Demand All Sectors



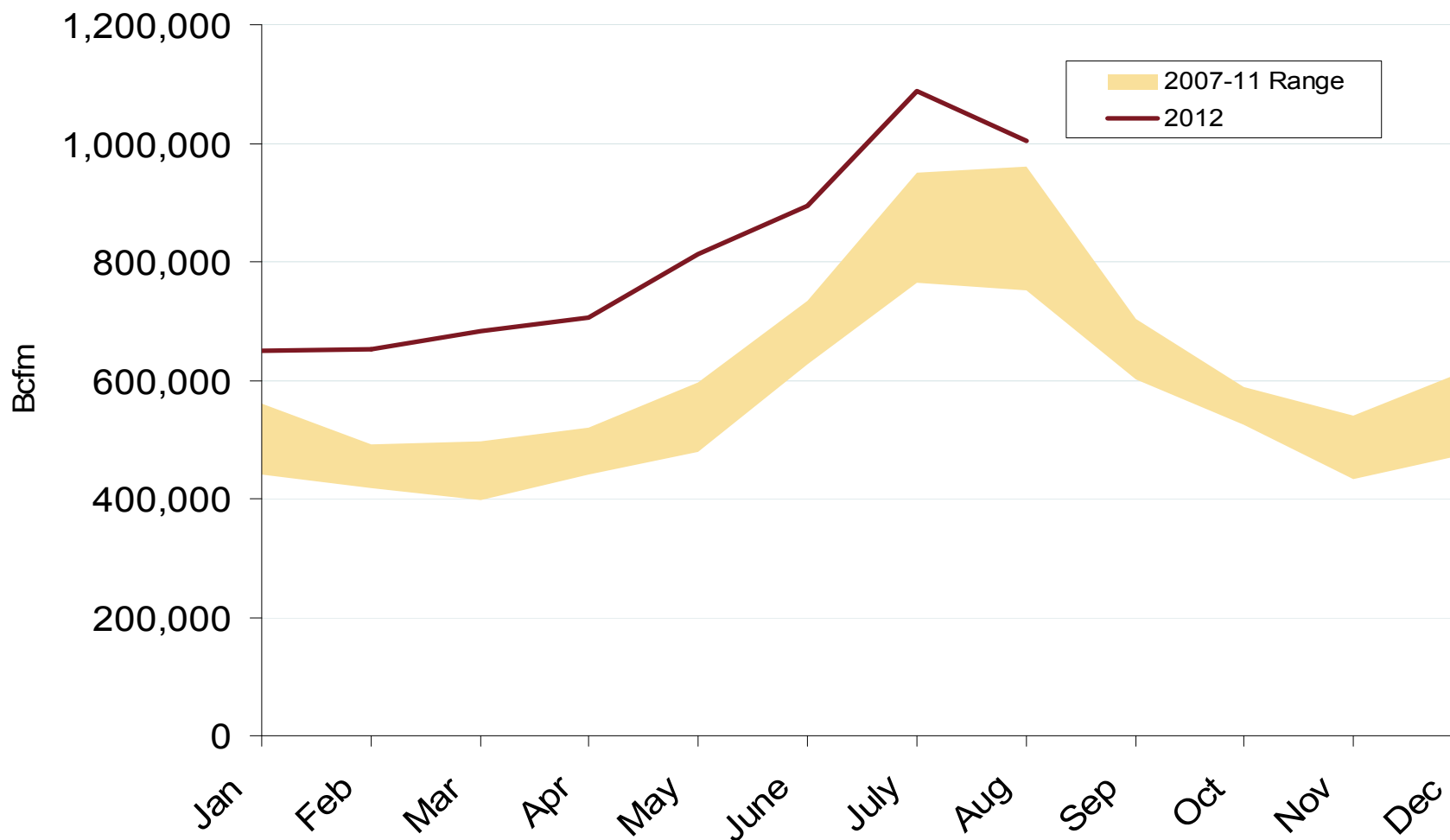
Source: Derived from *Bentek Energy* data
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

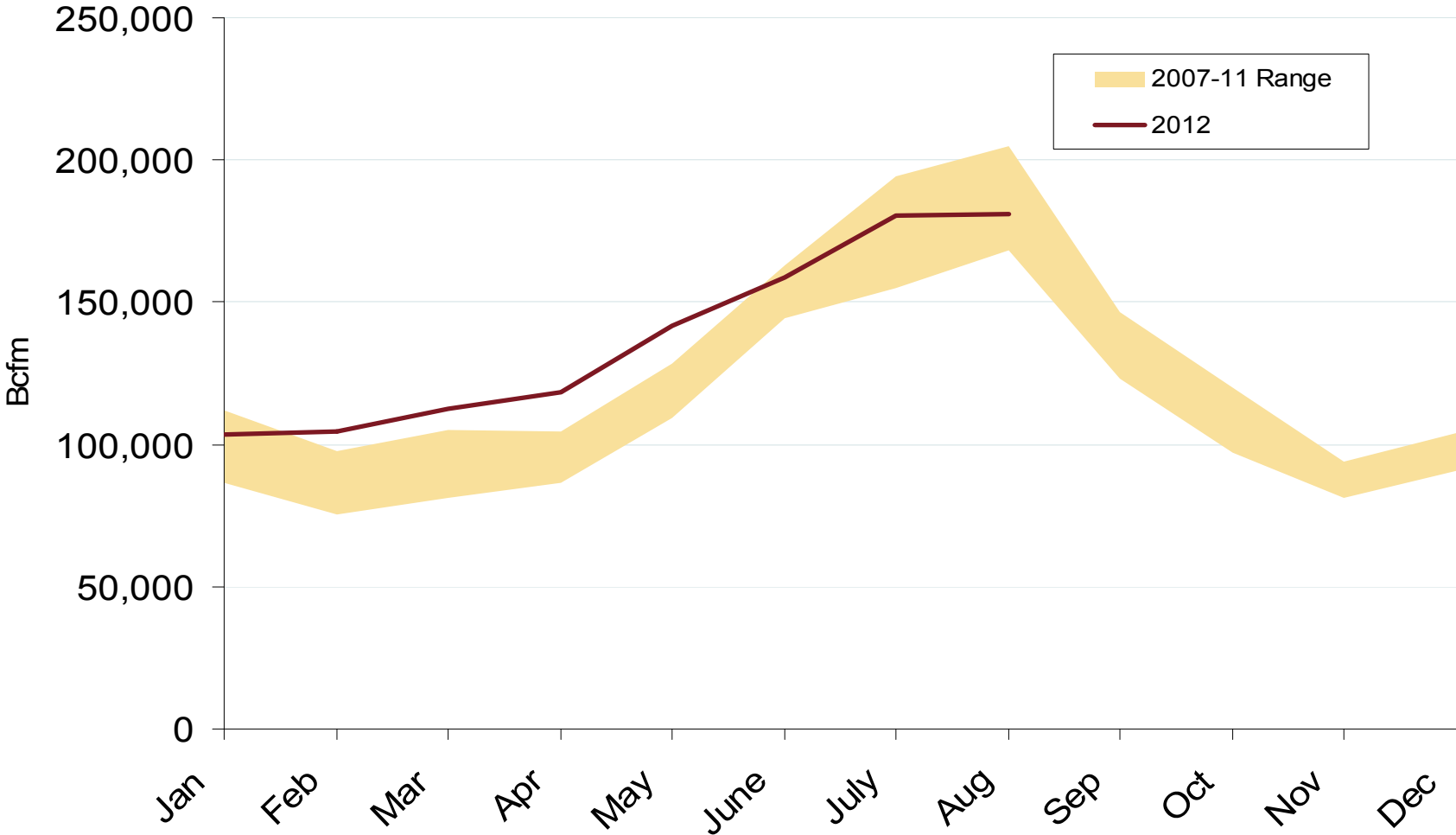
Natural Gas Market Overview: NG Consumption for Power Generation

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U.S. Natural Gas Consumption for Power Generation



Gulf Natural Gas Consumption for Power Generation



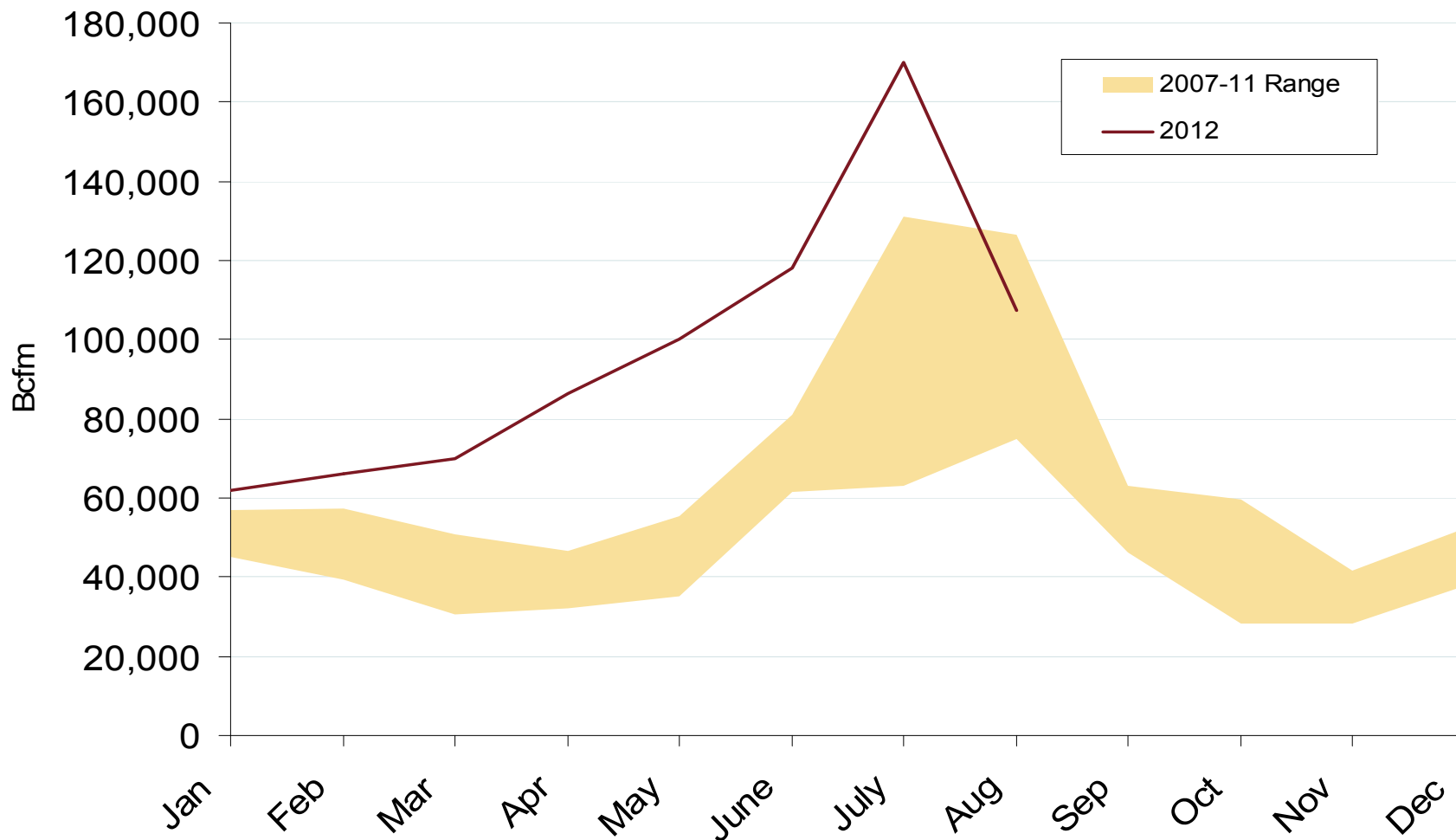
Source: Derived from *Bentek Energy* data
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

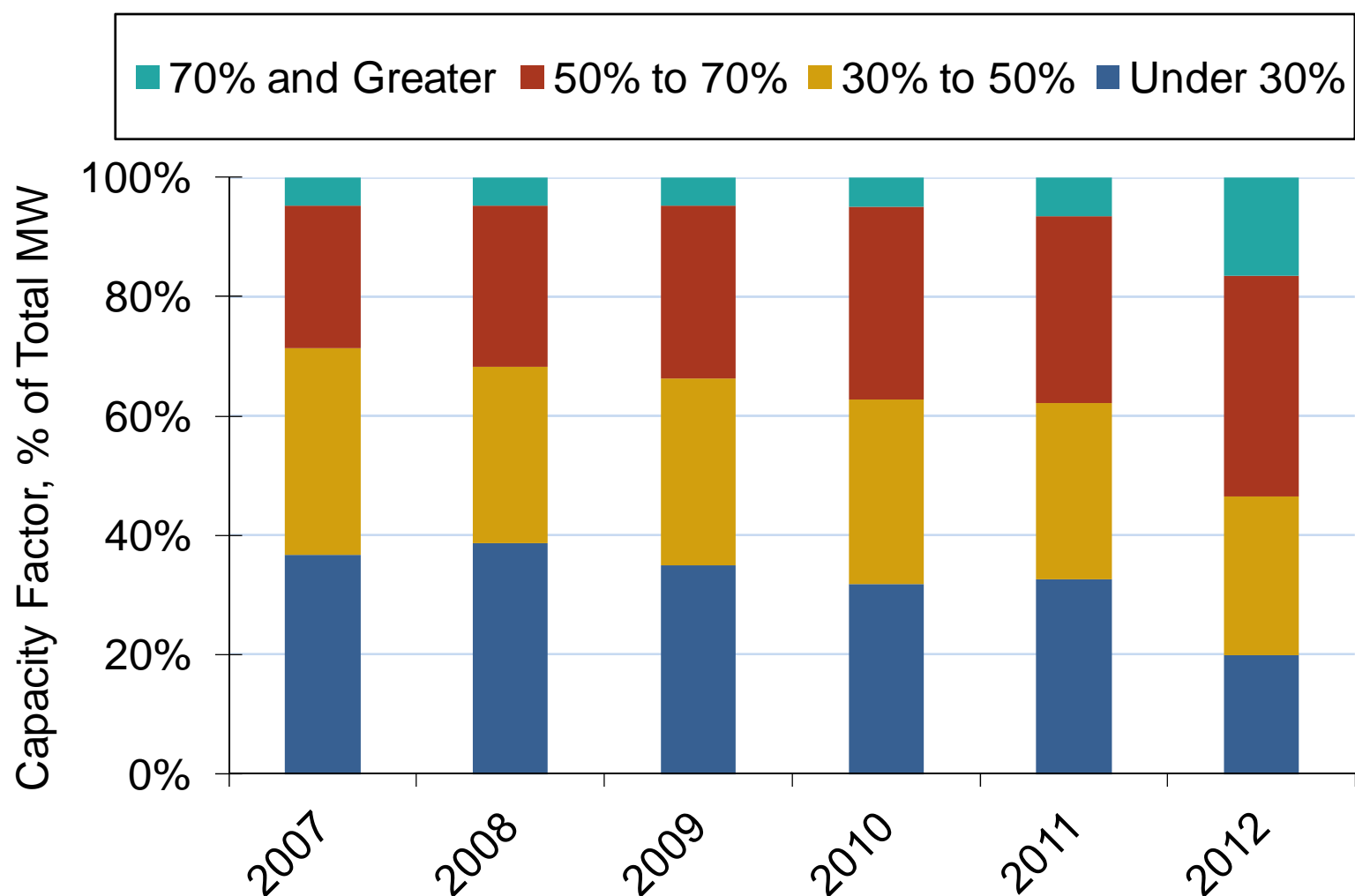
Midwest Natural Gas Market: NG Consumption for Power Generation

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Midwest Natural Gas Consumption for Power Generation



Major Shifts in U.S. CCGT Units Capacity Factors in 2012



Note: CCGT-Combined Cycle Gas Turbines. The capacity factor of a plant as the annual number of MWh generated divided by the plants annual operating capability which is maximum load at which a generator can operate without exceeding approved plant stress limits.

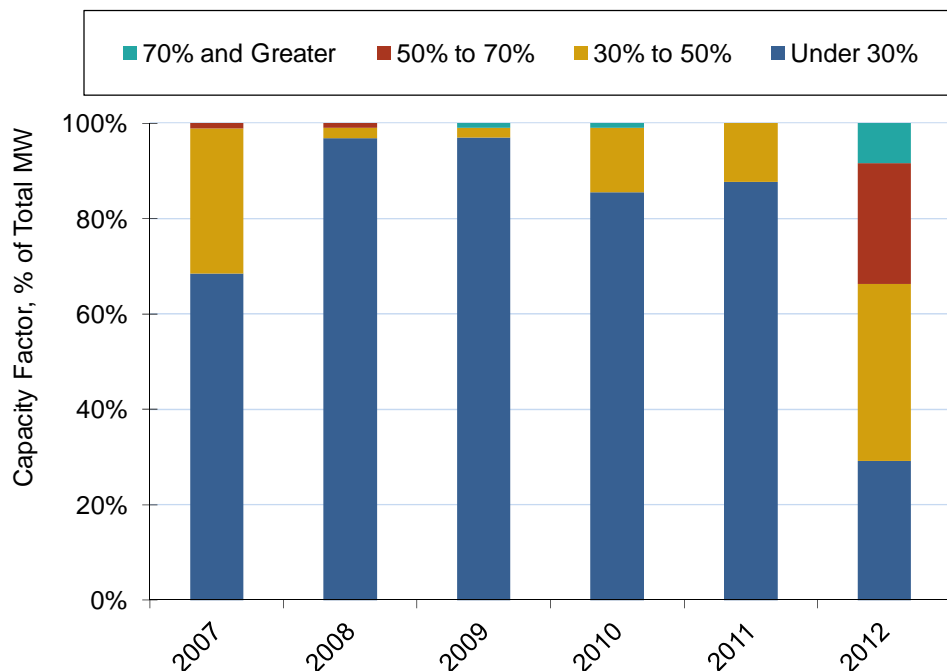
Source: Derived from SNL Data

Updated May, 2011

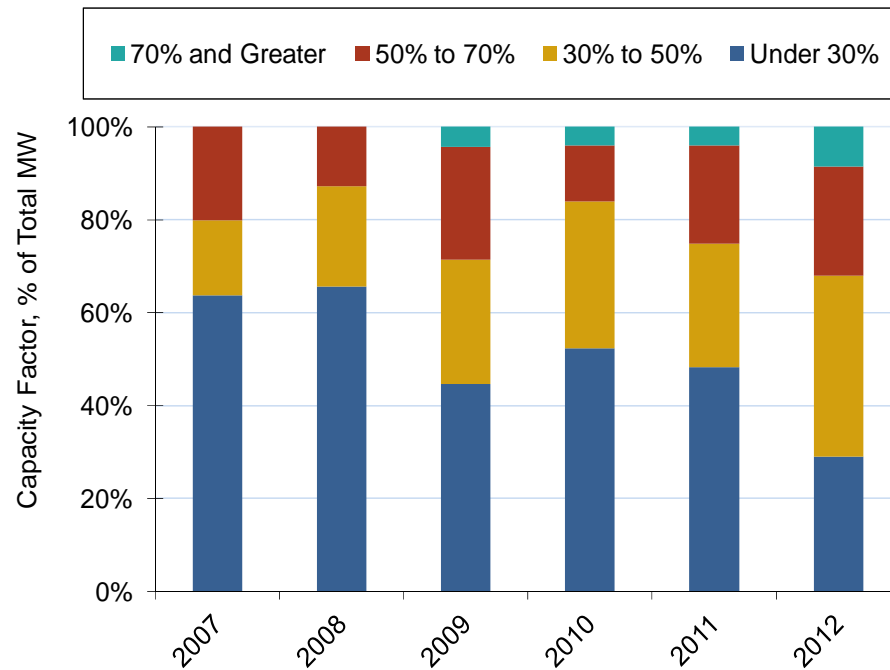
2122

Midwest Power Burn Doubles, MISO Uses of CCGT Units as Baseload

MISO CCGT Use



SPP CCGT Use



Note: CCGT-Combined Cycle Gas Turbines. The capacity factor of a plant as the annual number of MWh generated divided by the plants annual operating capability which is maximum load at which a generator can operate without exceeding approved plant stress limits.

Source: Derived from SNL Data

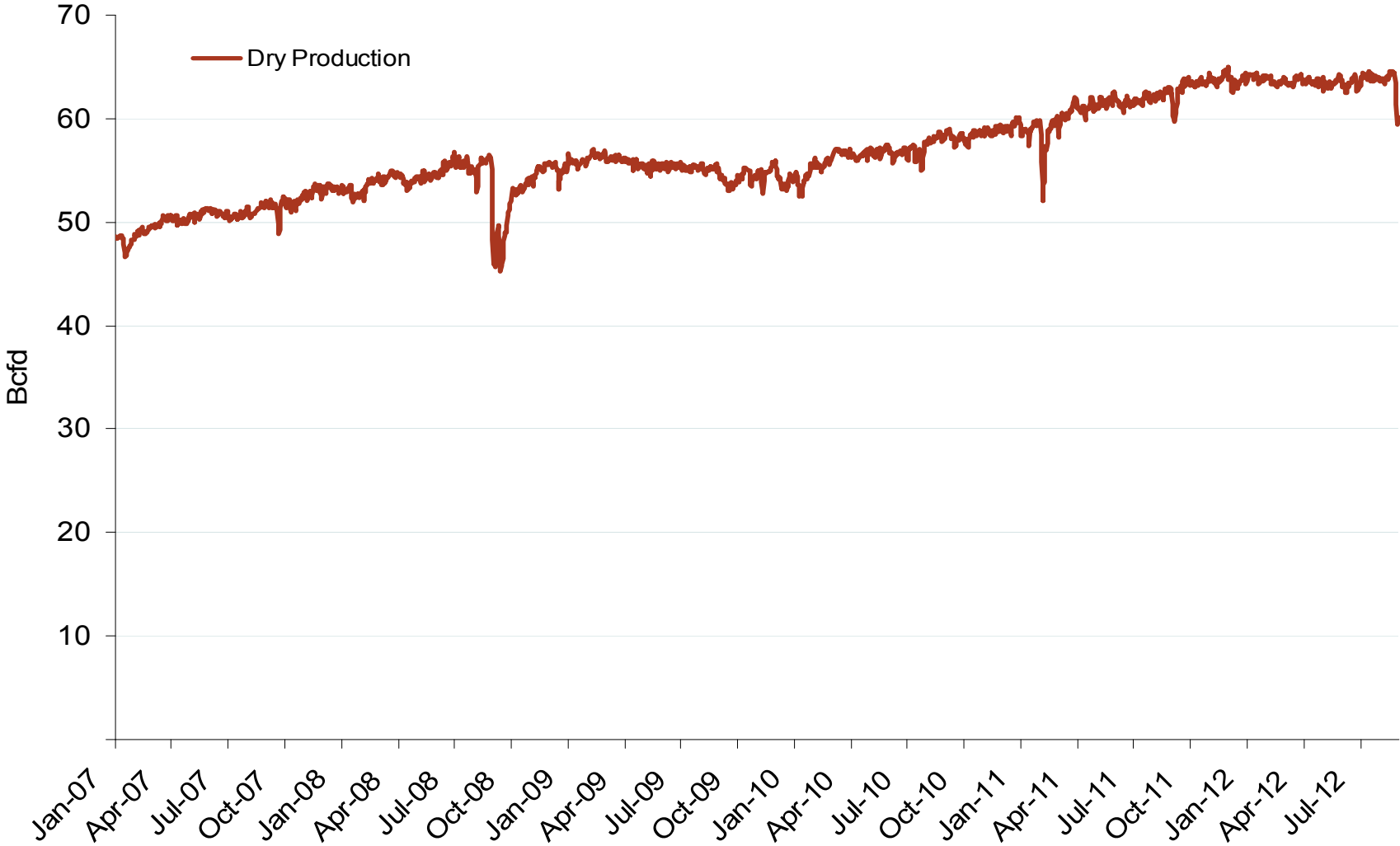
Updated May, 2011

2122

Natural Gas Markets: Monthly U.S. Dry Gas Production

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



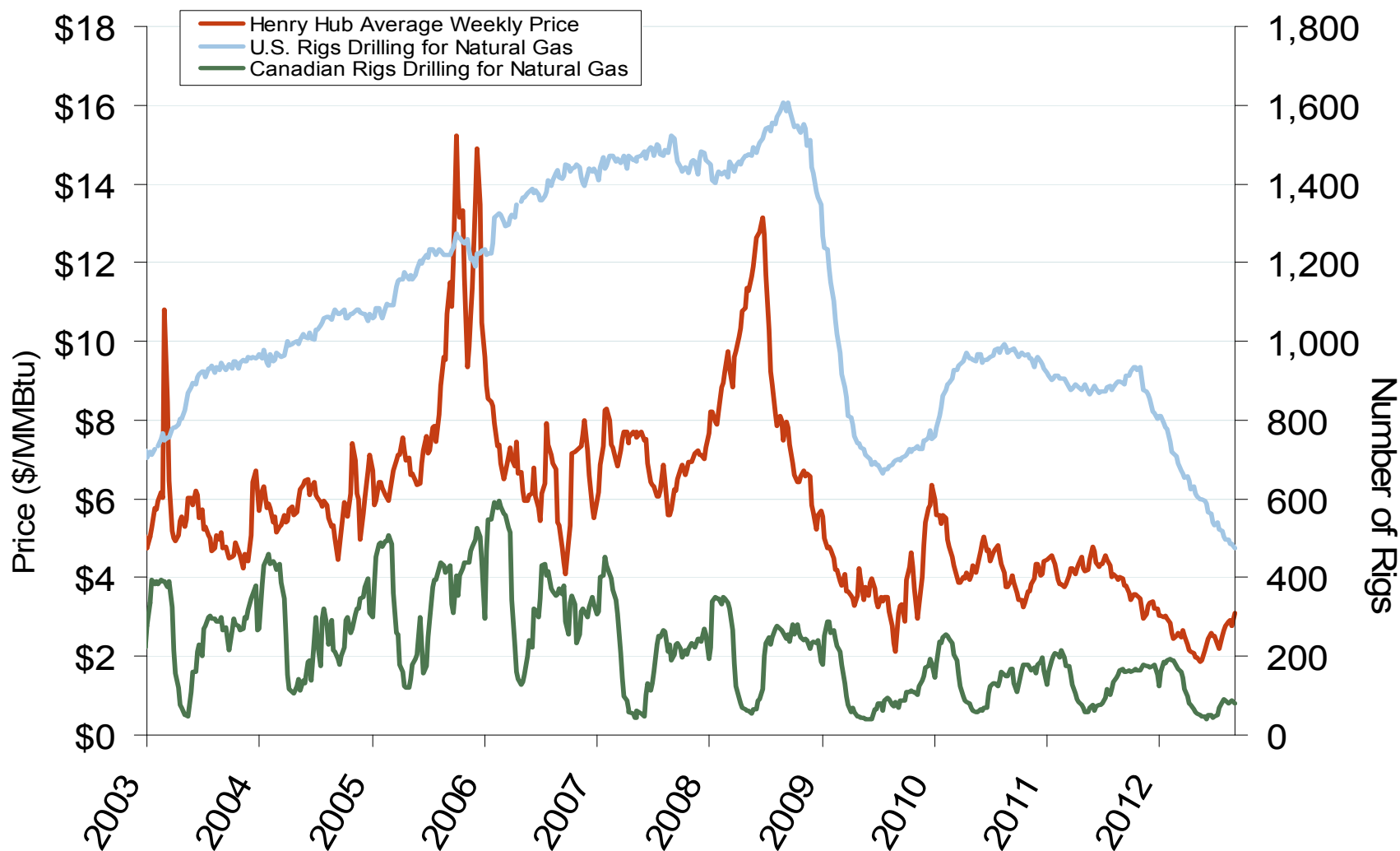
Note: Prior to July 2010, chart was derived from a combination of EIA and Bentek Energy data

Source: Derived from Bentek Energy data

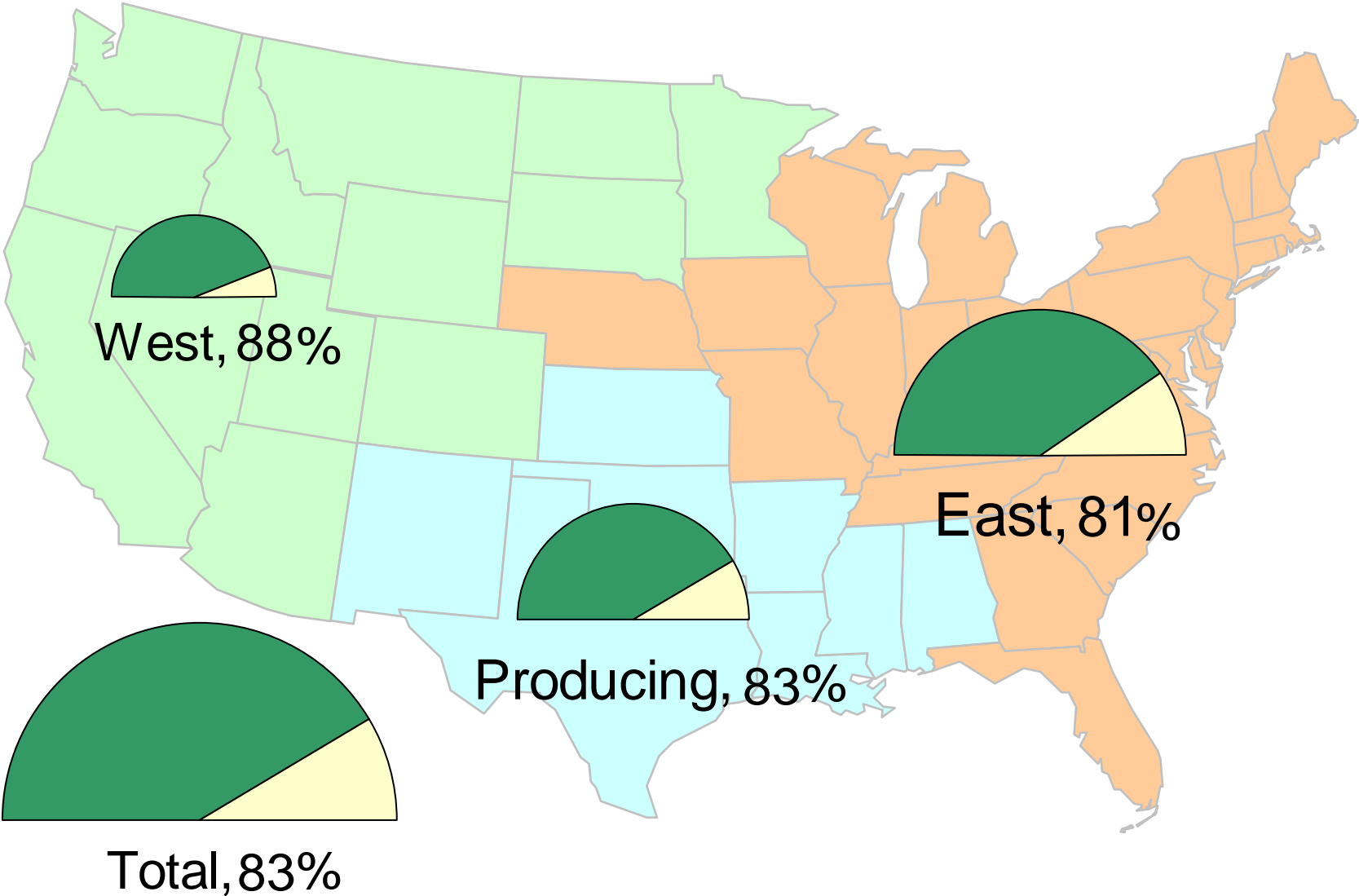
Natural Gas Market Overview: Drilling Rig Count

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



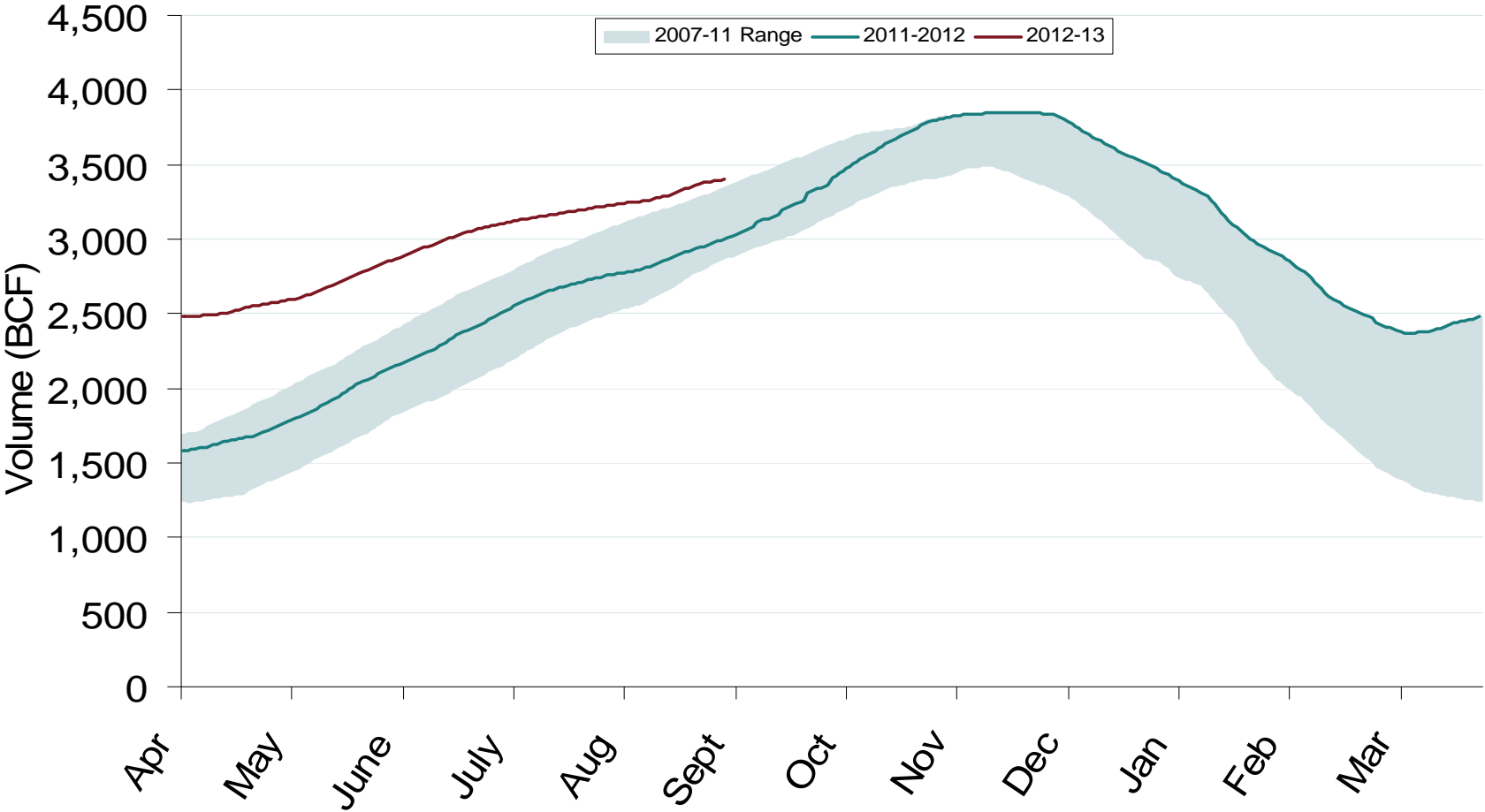
Natural Gas Storage Inventories – August 31, 2012



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

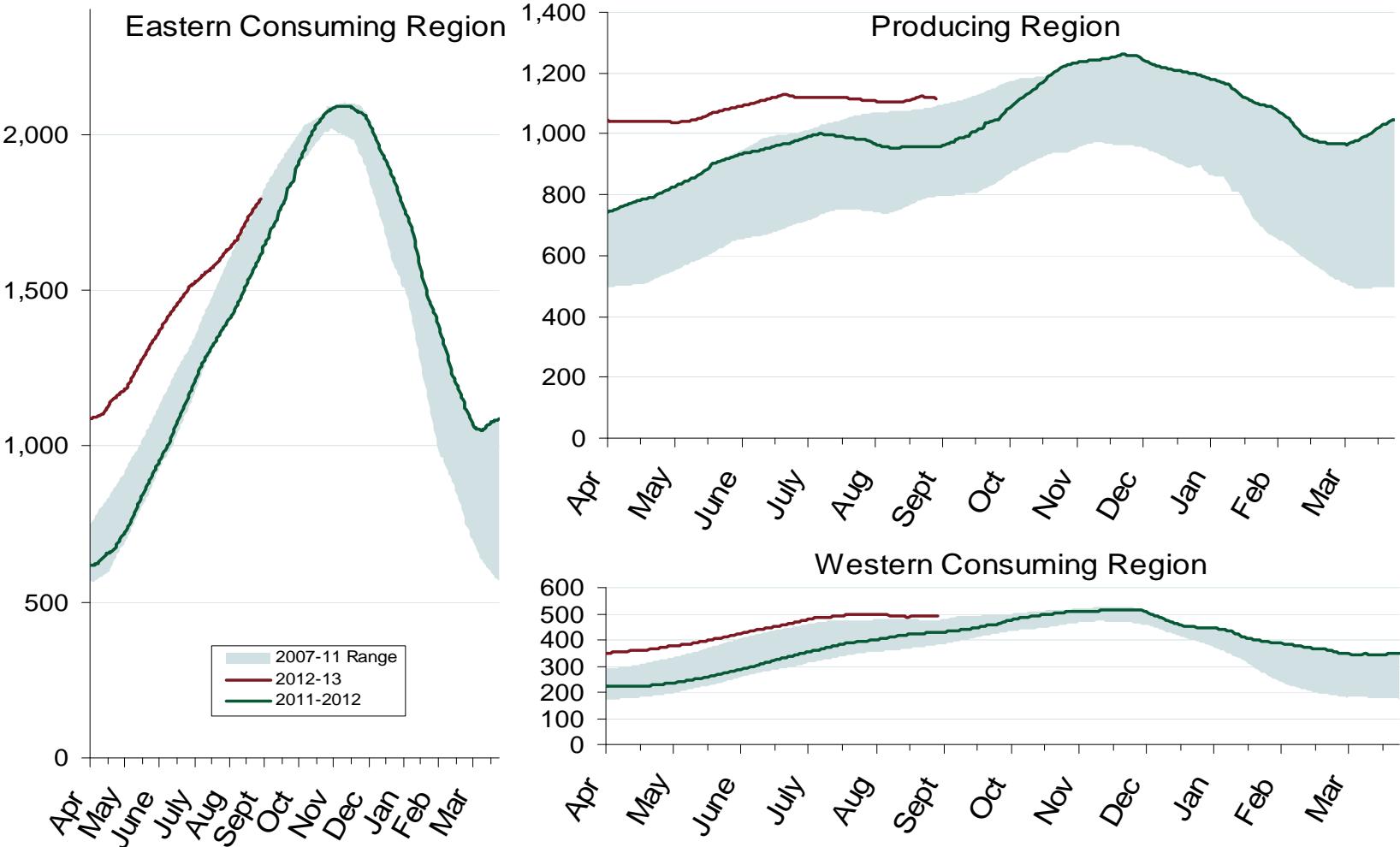
Updated: September 6, 2012⁰²²

Total U.S. Working Gas in Storage



Source: Derived from EIA data
September 2012 Midwest Snapshot Report

Regional Totals of Working Gas in Storage



Source: Derived from EIA data
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

Natural Gas Overview: World LNG Prices

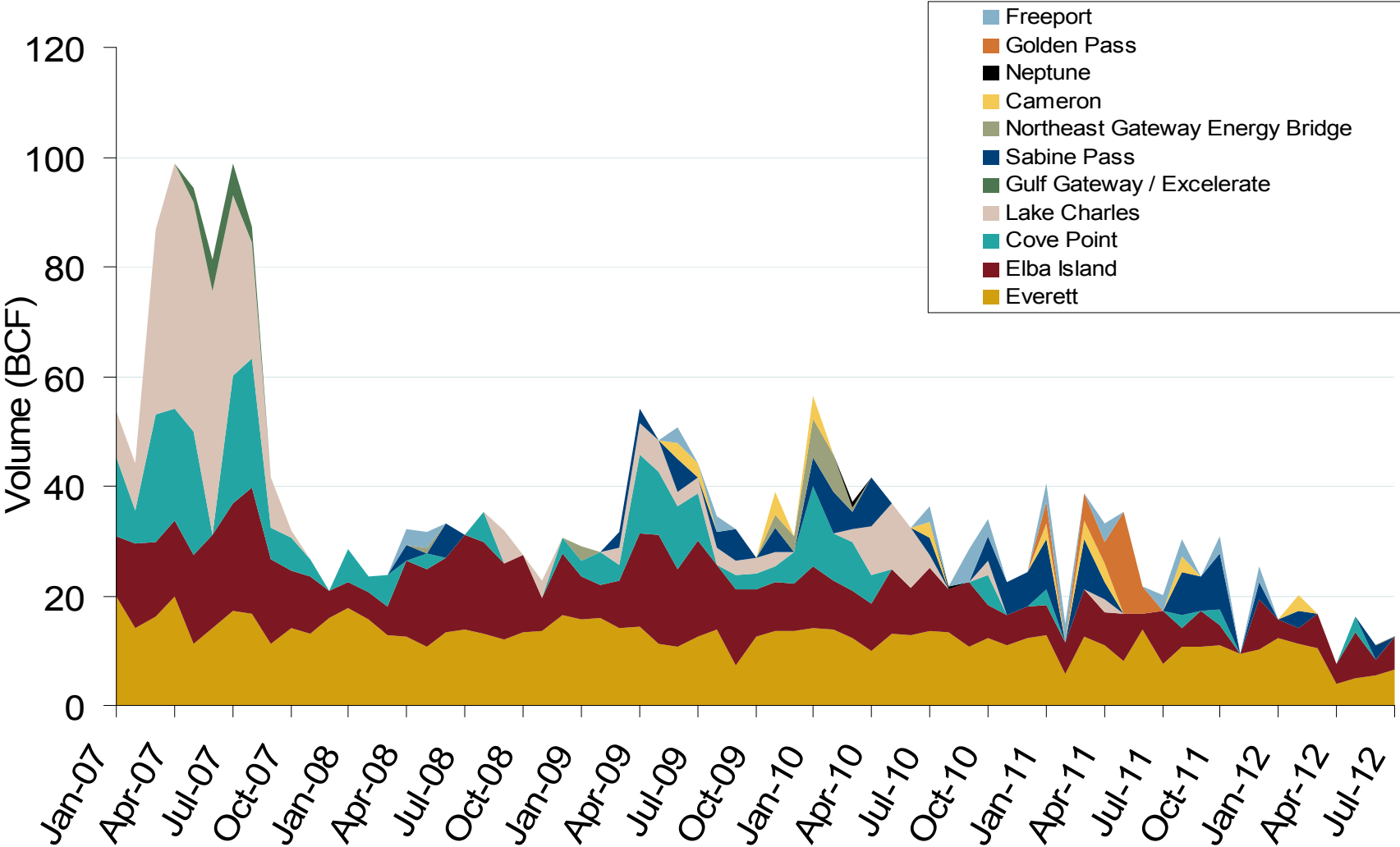
Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight**World LNG Estimated October 2012 Landed Prices**

Source: Waterborne Energy, Inc. Data in \$US/MMBtu

September 2012 Midwest Snapshot Report

Updated: September 7, 2012³⁰²⁴

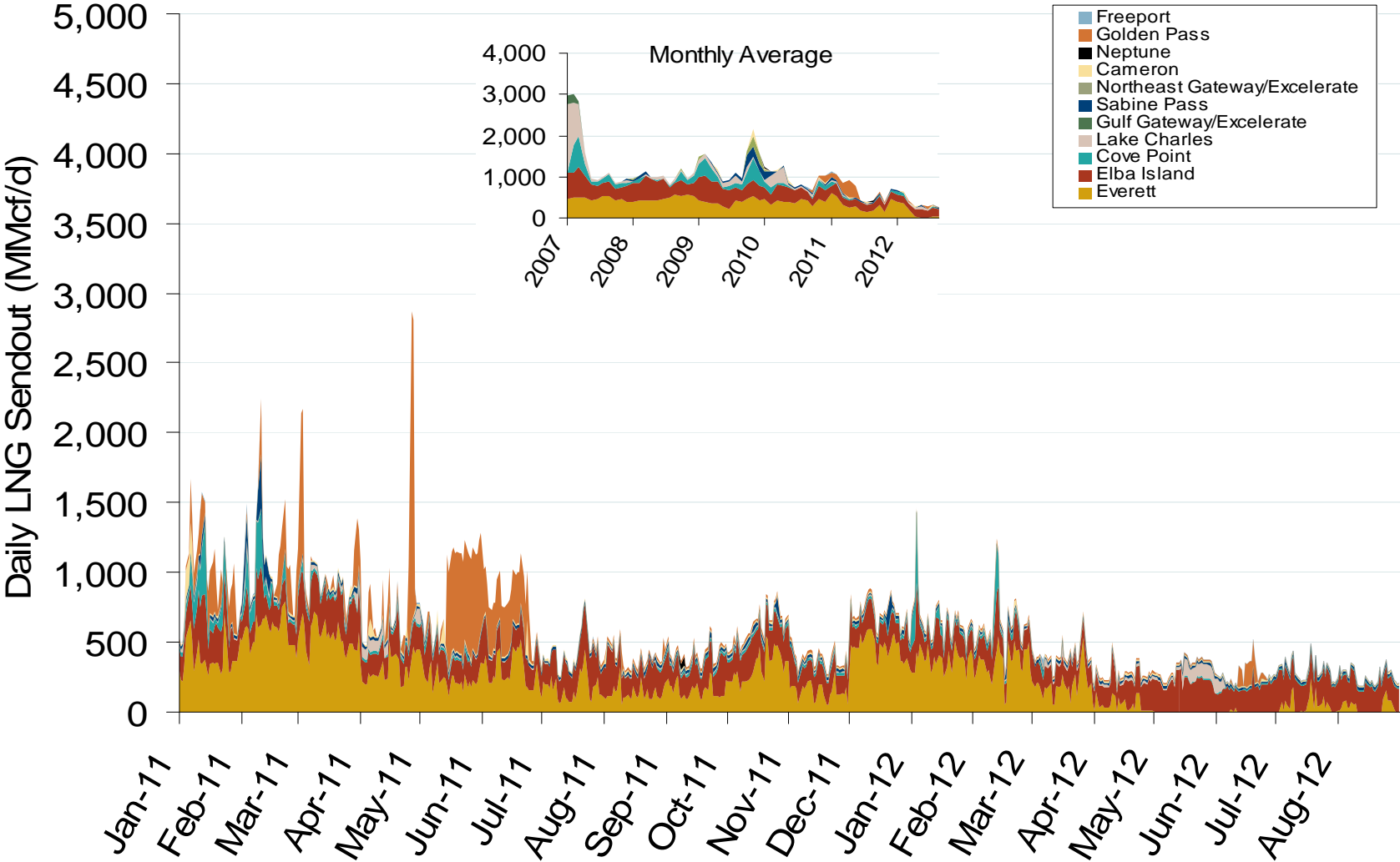
Monthly Gas Imports at Existing U.S. LNG Facilities



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

Updated: September 06, 2012

Daily Gas Sendout from Existing U.S. LNG Facilities

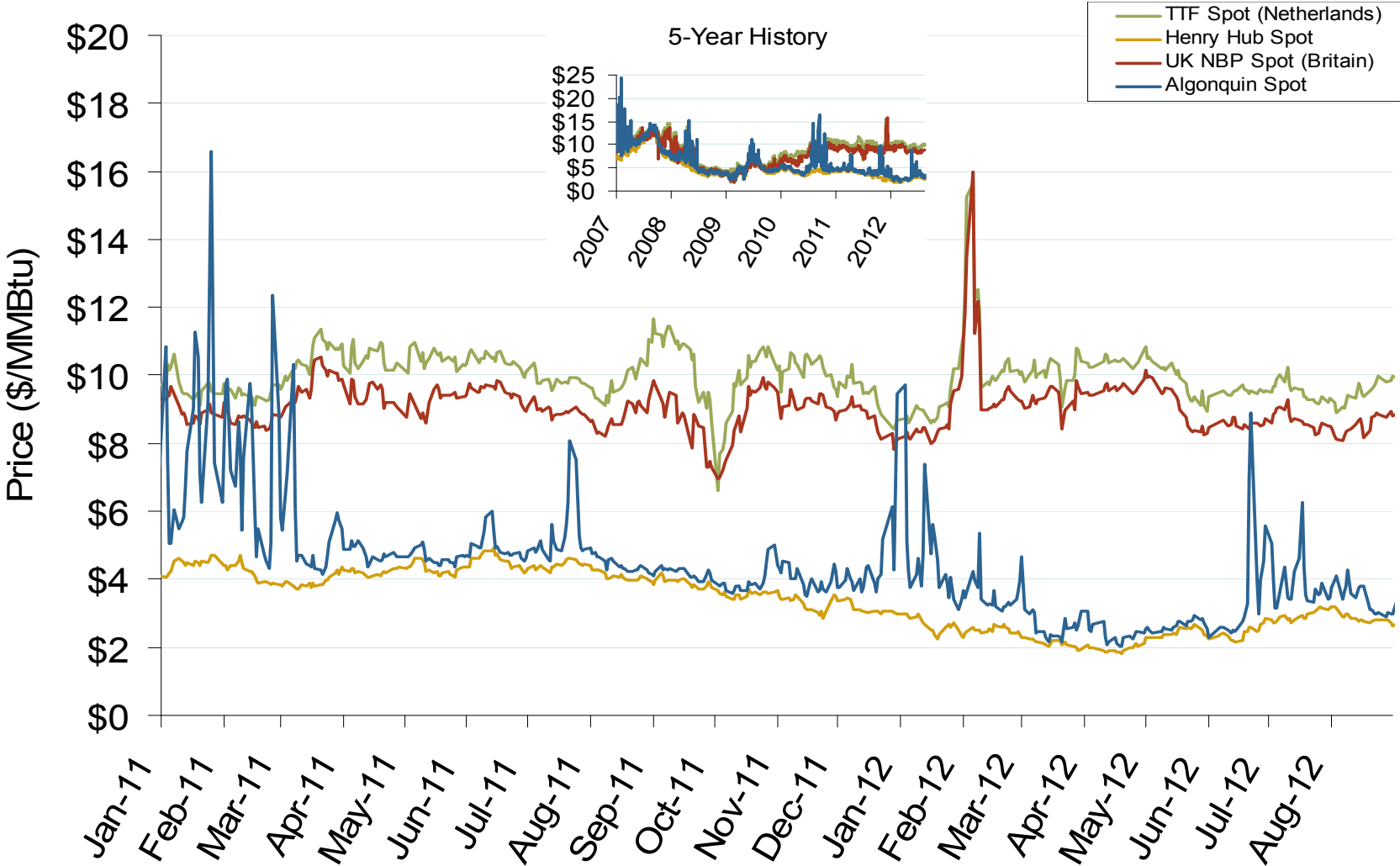


Notes: Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan BostonGas, and LNG trucked out of the terminal. Excludes flows to the Freeport LNG which flows via intrastate pipelines and flows to the Mystic 8 and 9 power plants.

Source: Derived from Bentek Energy data
September 2012 Midwest Snapshot Report

Updated: September 07, 2012

Atlantic Basin European and US Spot Natural Gas Prices



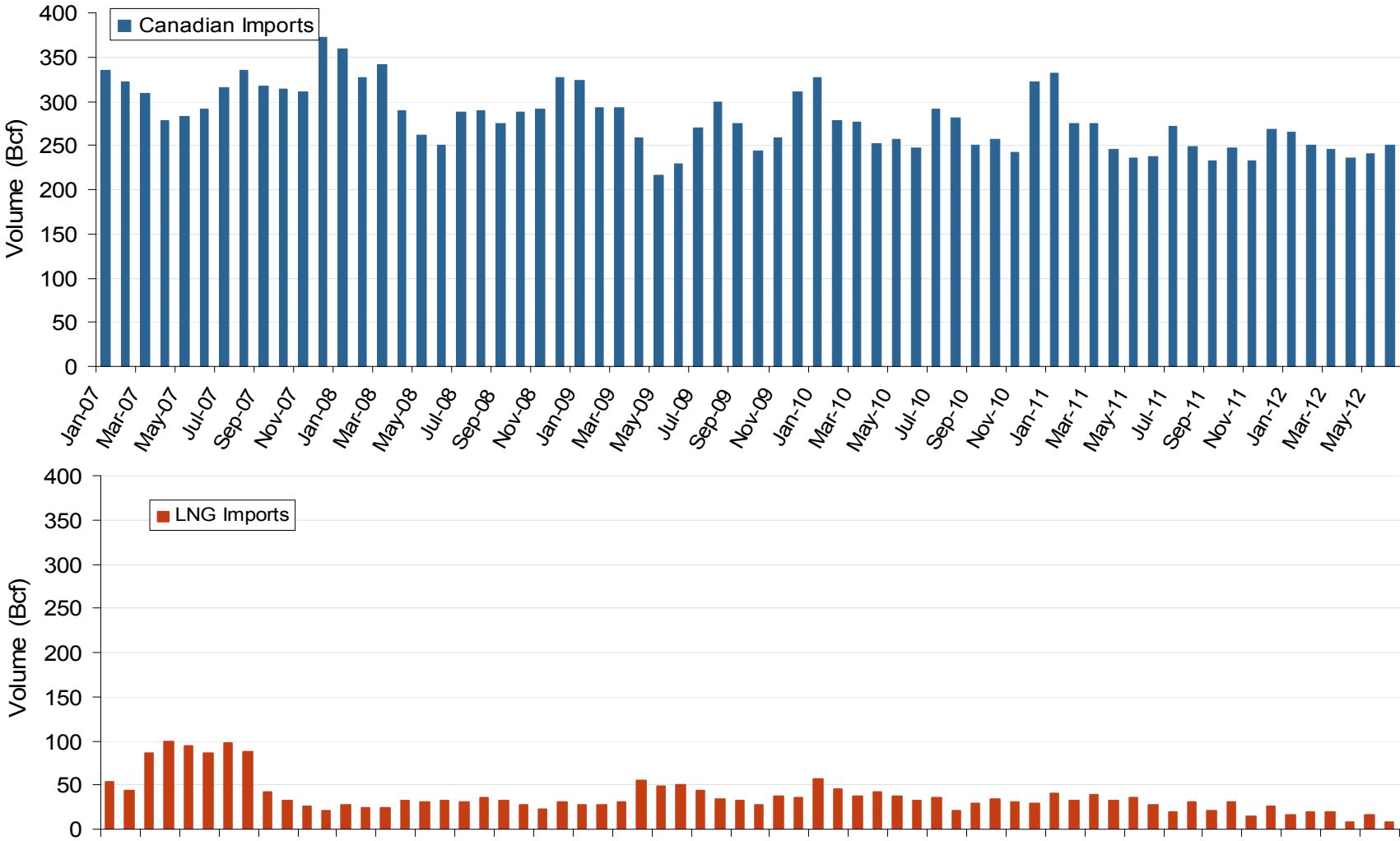
Source: Derived from *Bloomberg* and *ICE* data
September 2012 Midwest Snapshot Report

Updated: September 04, 2012

Natural Gas Overview: Natural Gas Imports

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



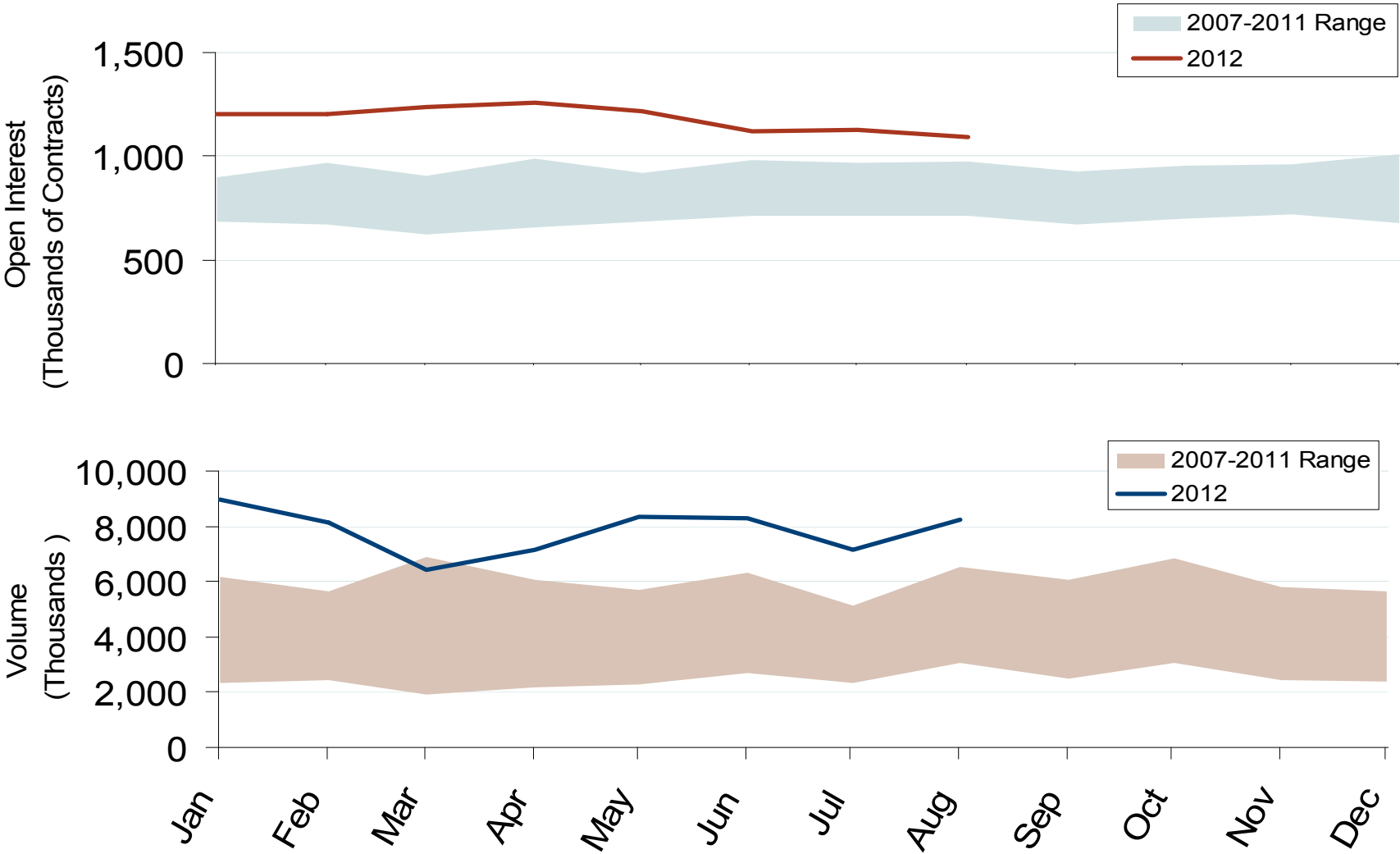
Source: EIA Natural Gas Monthly
September 2012 Midwest Snapshot Report

Updated: September 06, 2012

Natural Gas Trading: Futures Open Interest and Volume

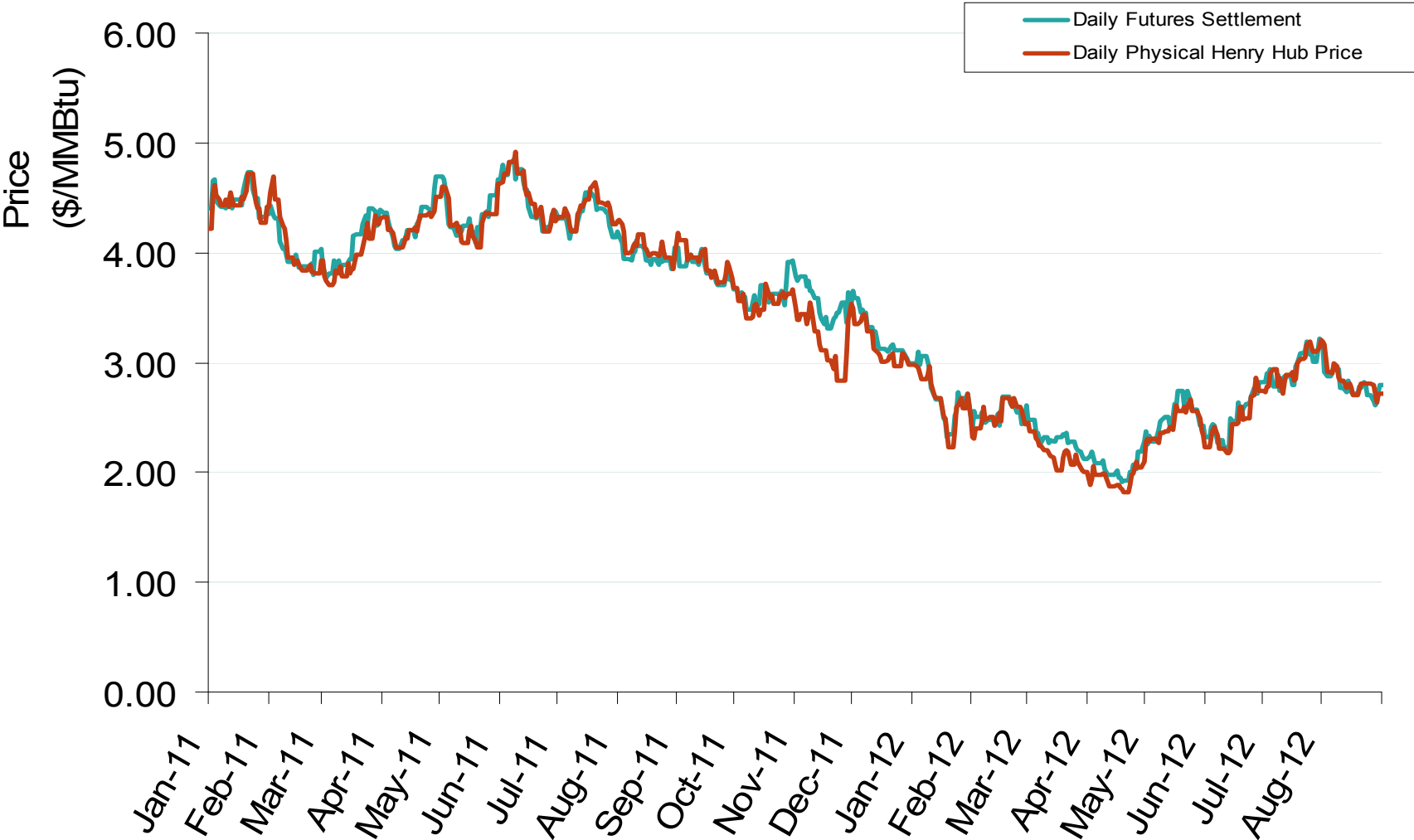
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Nymex NG Futures Month-End Open Interest and Monthly Volume



Source: Derived from Nymex data
September 2012 Midwest Snapshot Report

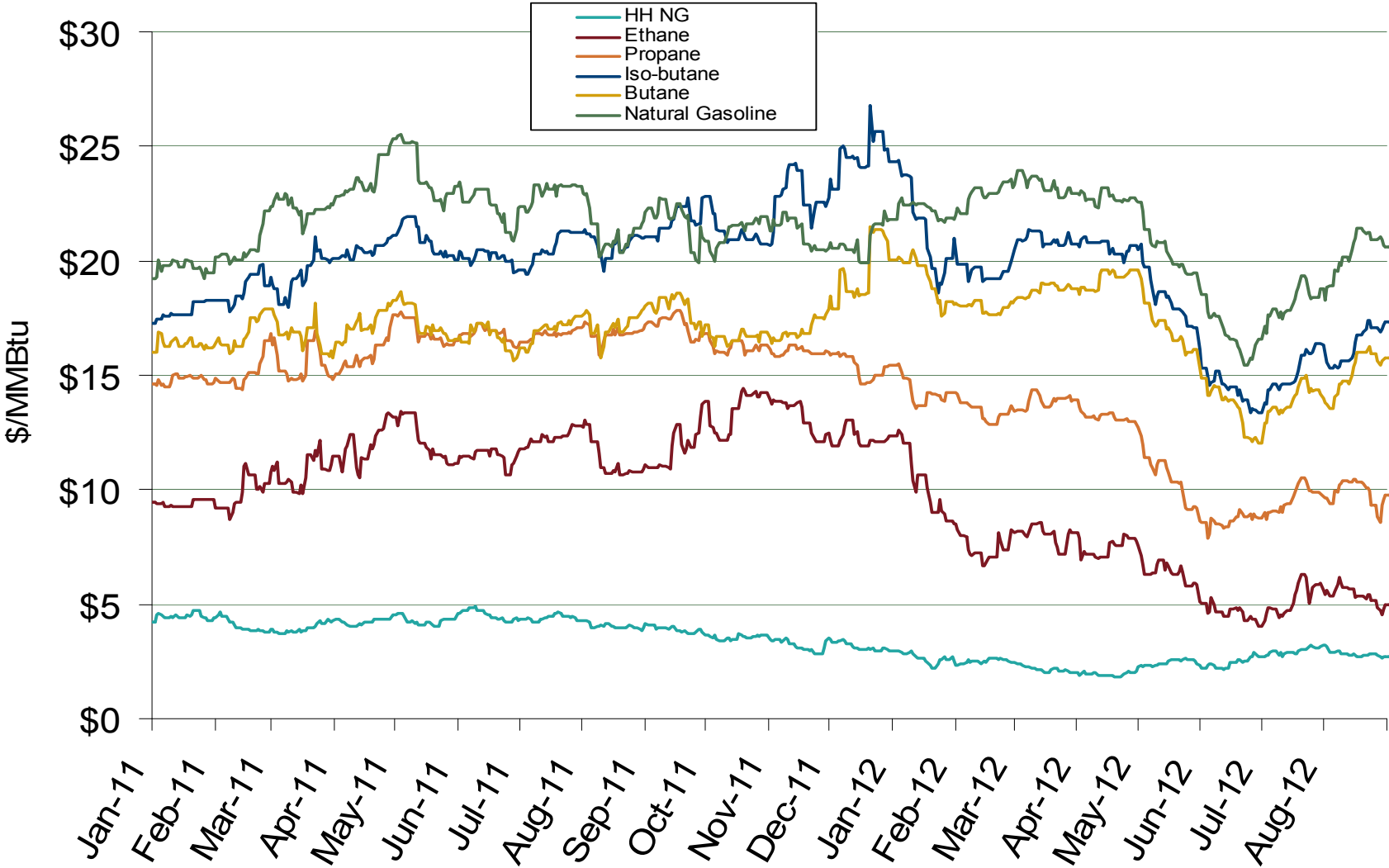
Daily Physical Index Price & Daily Futures Settlement Price



Natural Gas Market Overview: NGL Prices

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



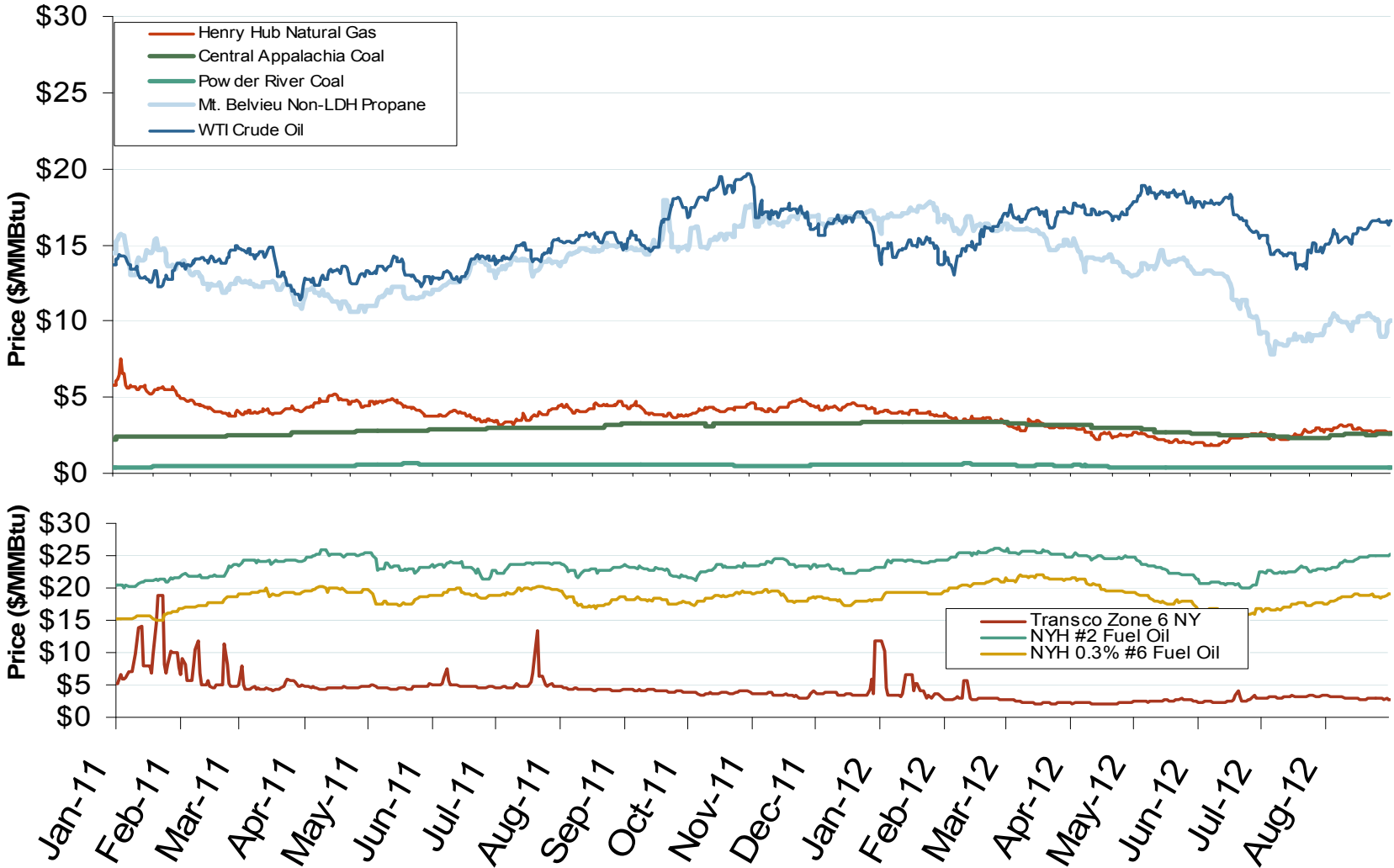
Source: Derived from Bloomberg Data
September 2012 Midwest Snapshot Report

Updated: September 04, 2012

Other Fuels Market: Fossil Fuel Prices

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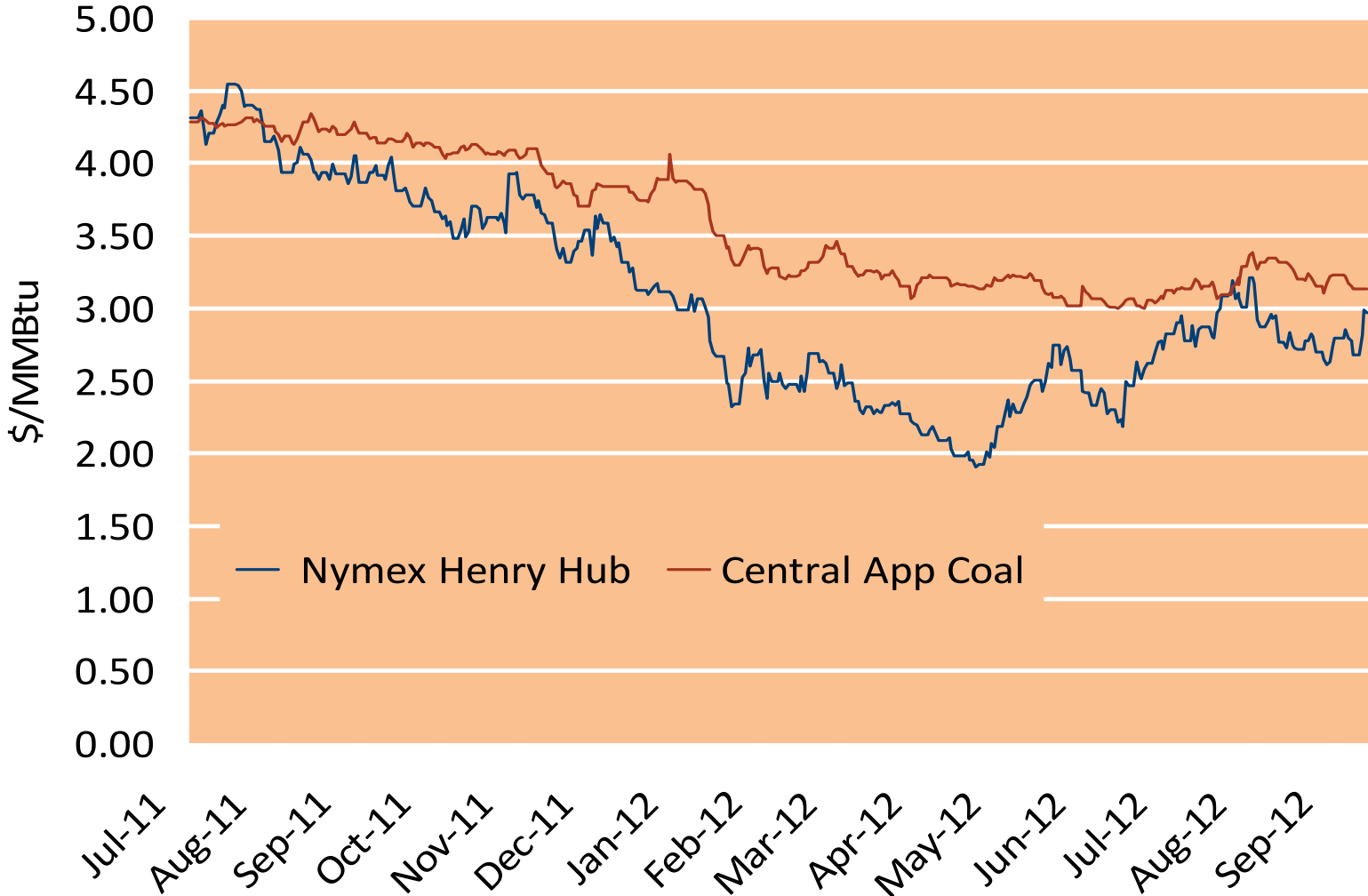
Oil, Coal, Natural Gas and Propane Daily Spot Prices



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

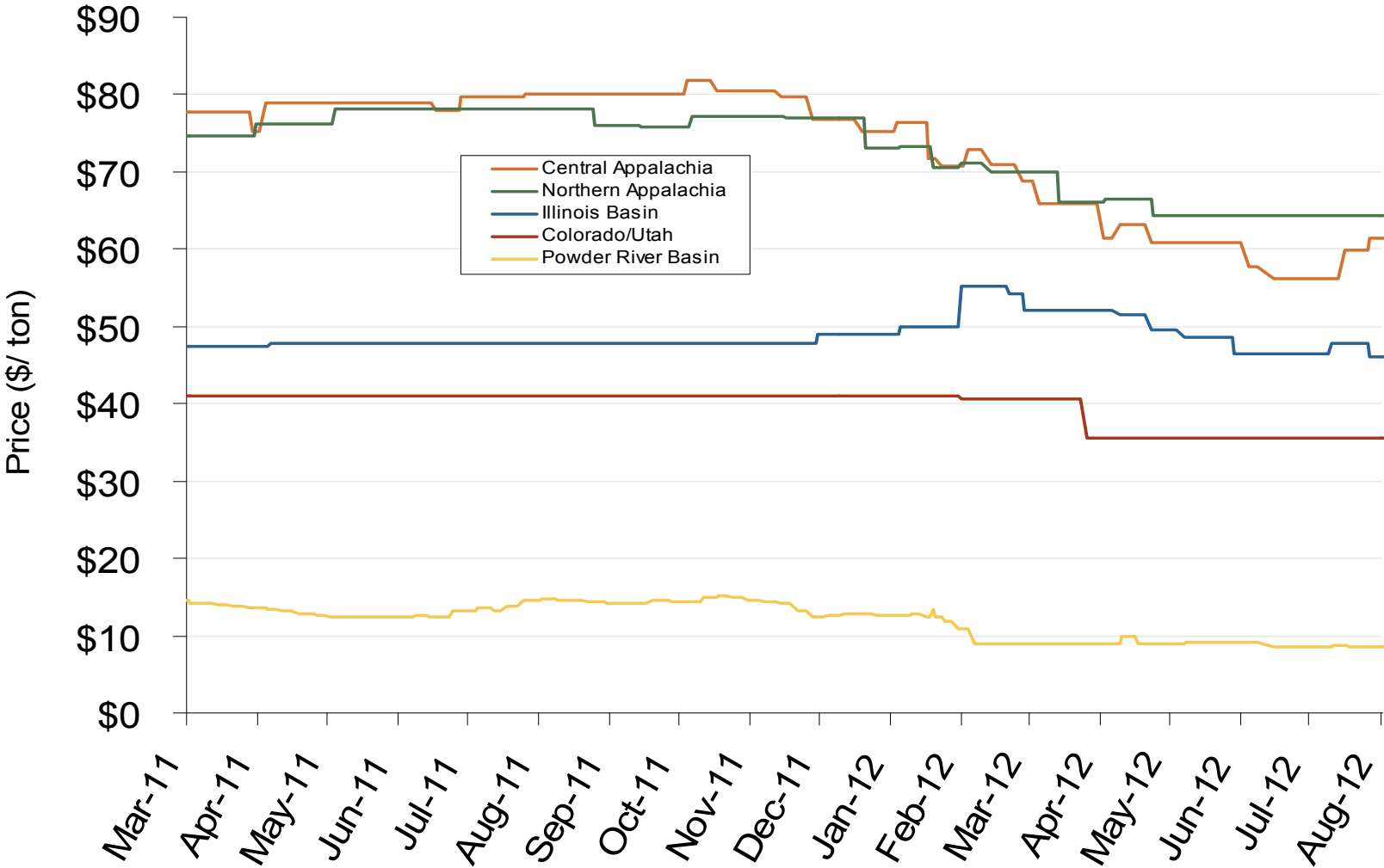
Gas Prices Reach Parity with Coal



National Electric Market Overview: Coal Prices

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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

September 2012 Midwest Snapshot Report

Updated: September 04, 2012

Other Fuels Market: U.S. Coal Stockpiles

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