

OE ENERGY MARKET SNAPSHOT

Midwest States Version – August 2008 Data

- **Special Report**
- **Market Fundamentals**
- **Prices and Market Analysis**

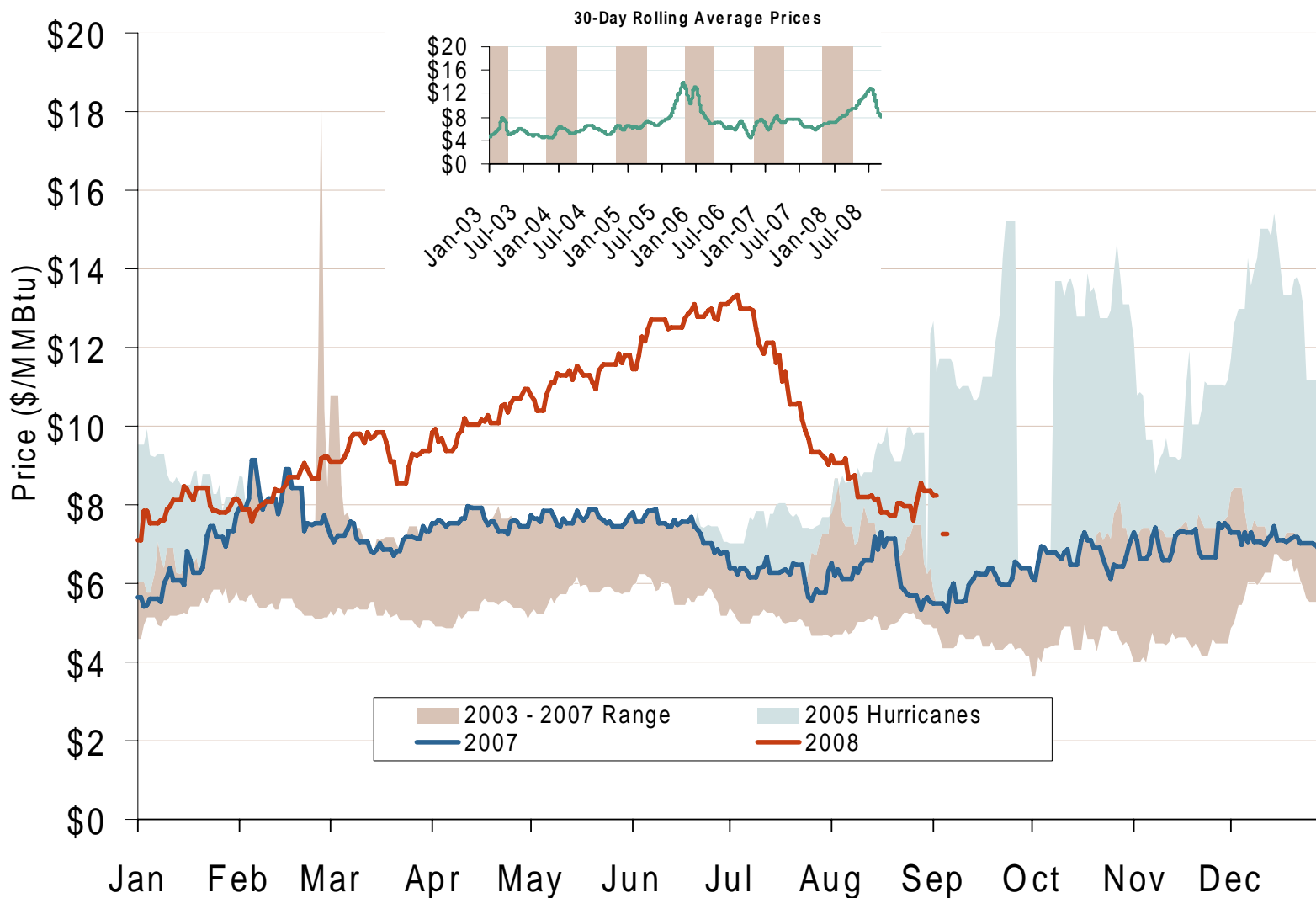
Office of Enforcement
Federal Energy Regulatory Commission
September 2008



Special Report:

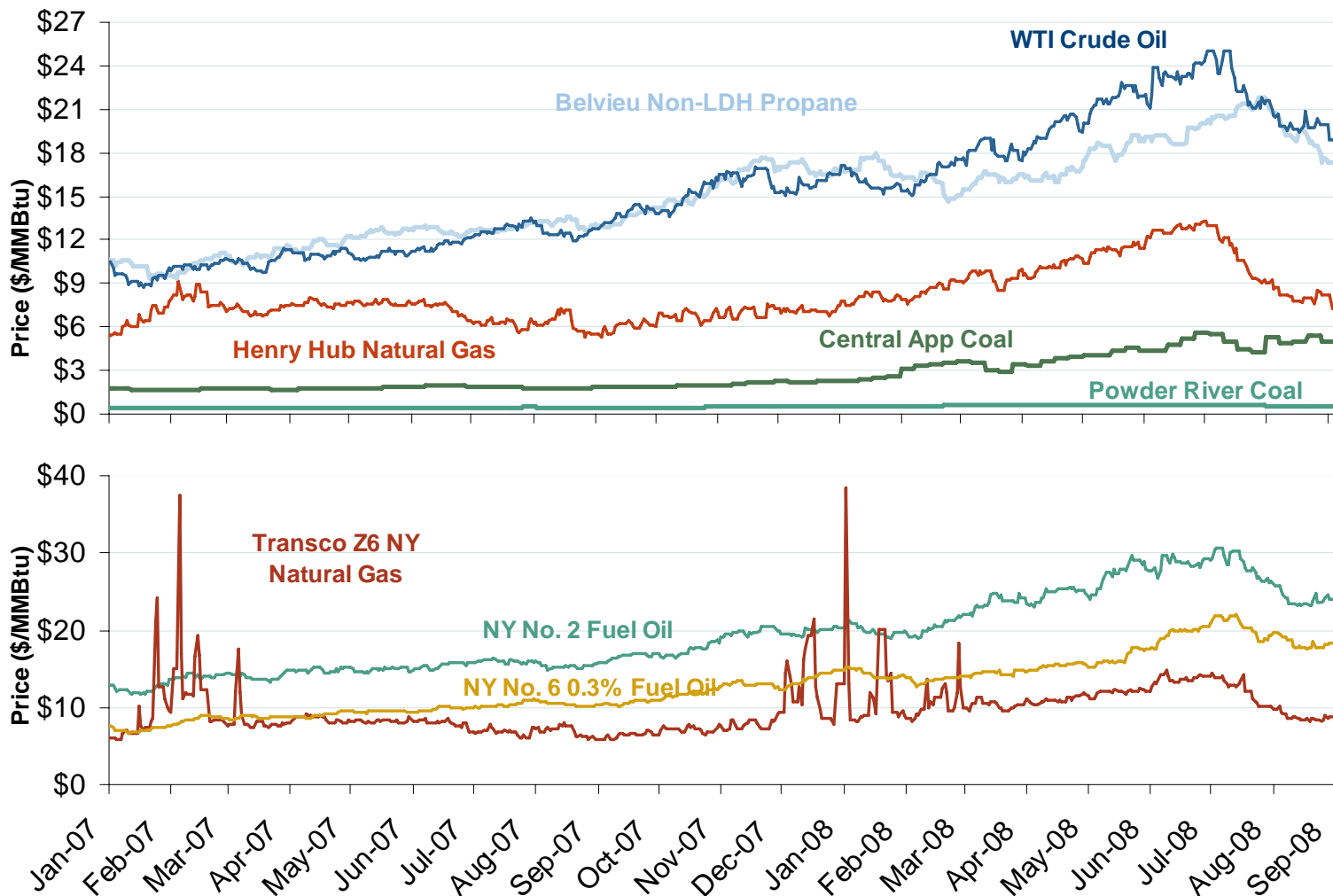
Natural Gas Price Decline II

Henry Hub Natural Gas Daily Spot Prices 2007, 2008 and 2003-2007 Year Range



Source: Derived from *Platts* data.
September 2008 Midwest Snapshot Report

Oil, Coal, Natural Gas and Propane Daily Spot Prices

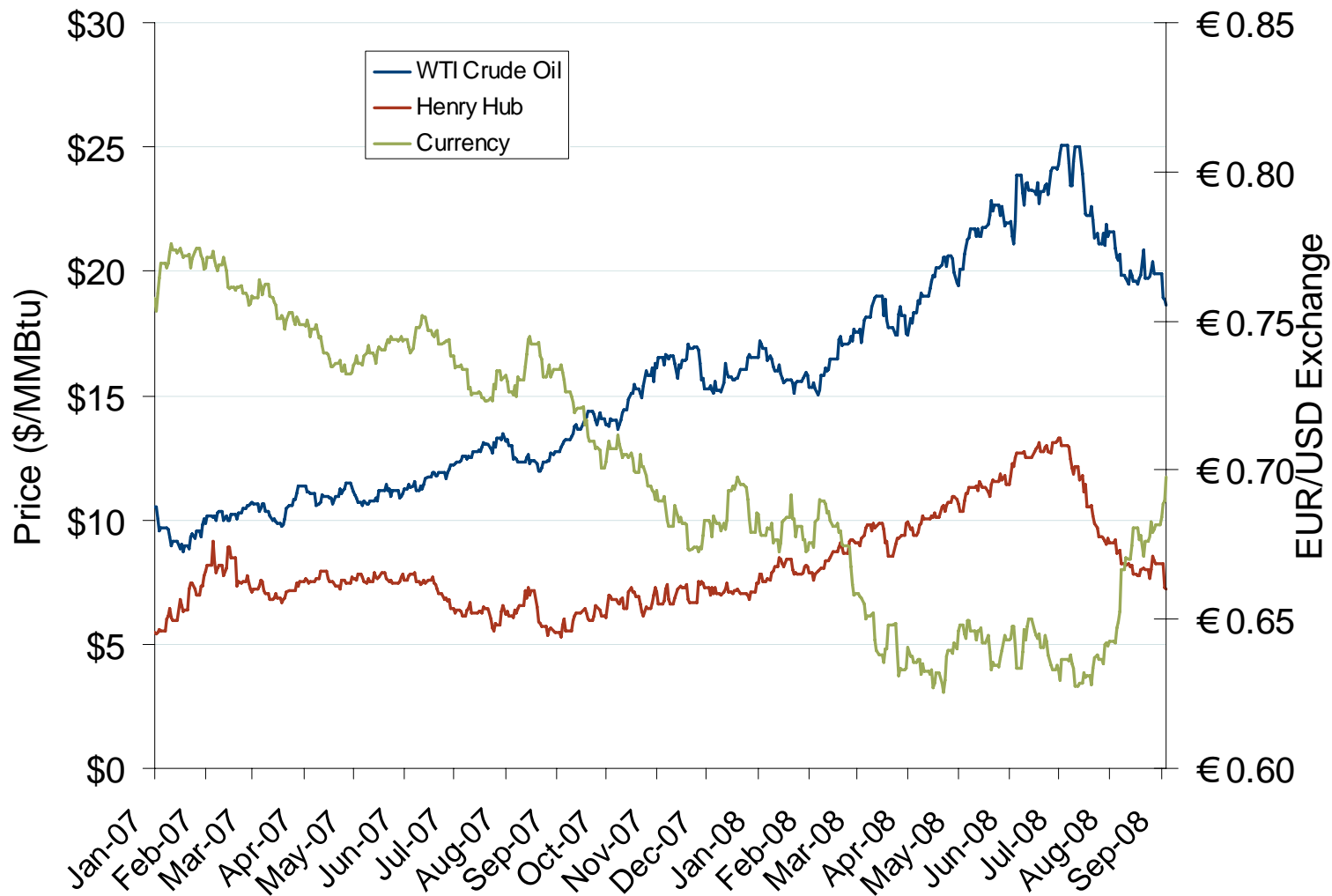


Source: Derived from ICE and Bloomberg data.

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.

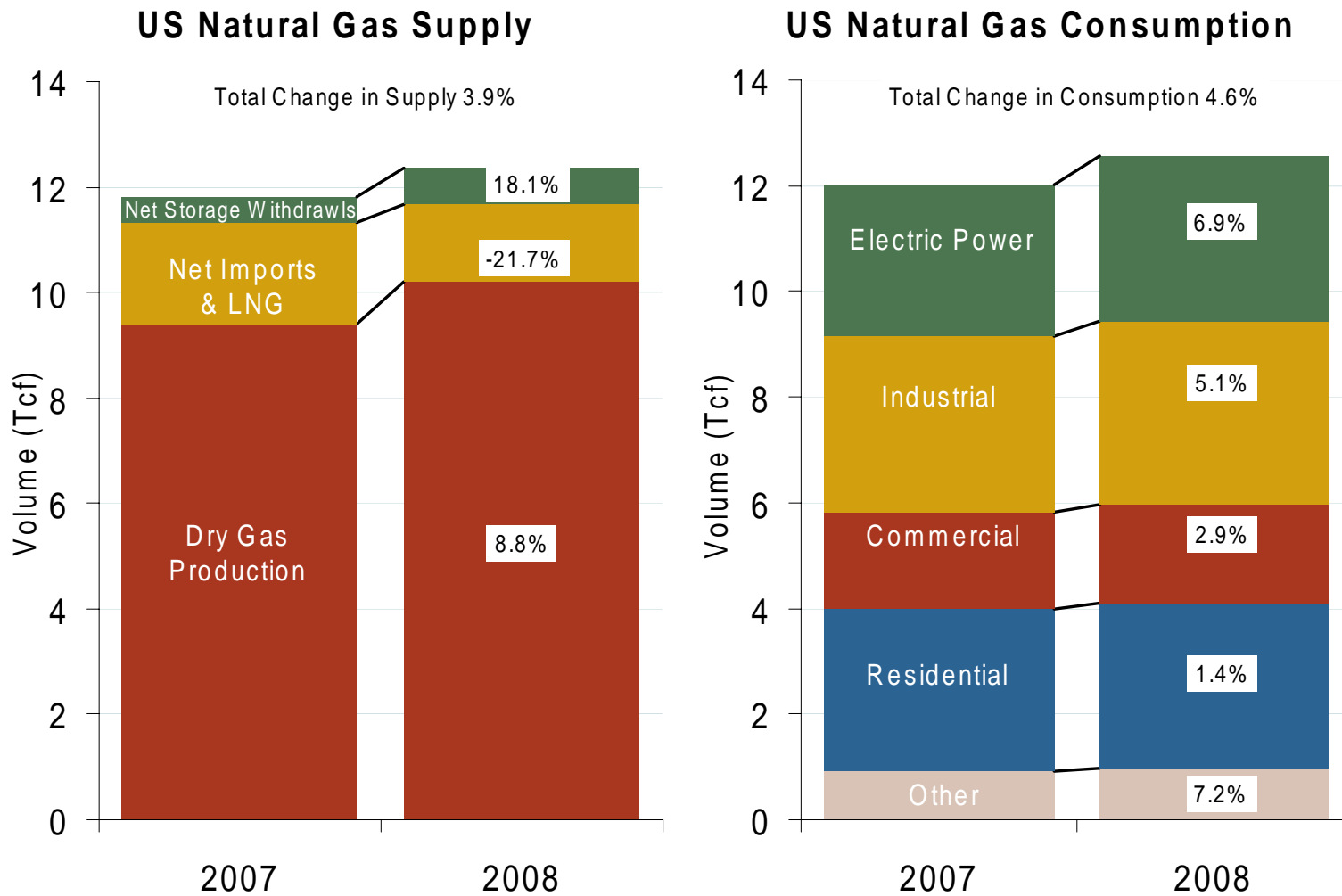
Updated September 5, 2008

Oil, Natural Gas and Currency Spot Prices



Source: Derived from *Bloomberg* data.
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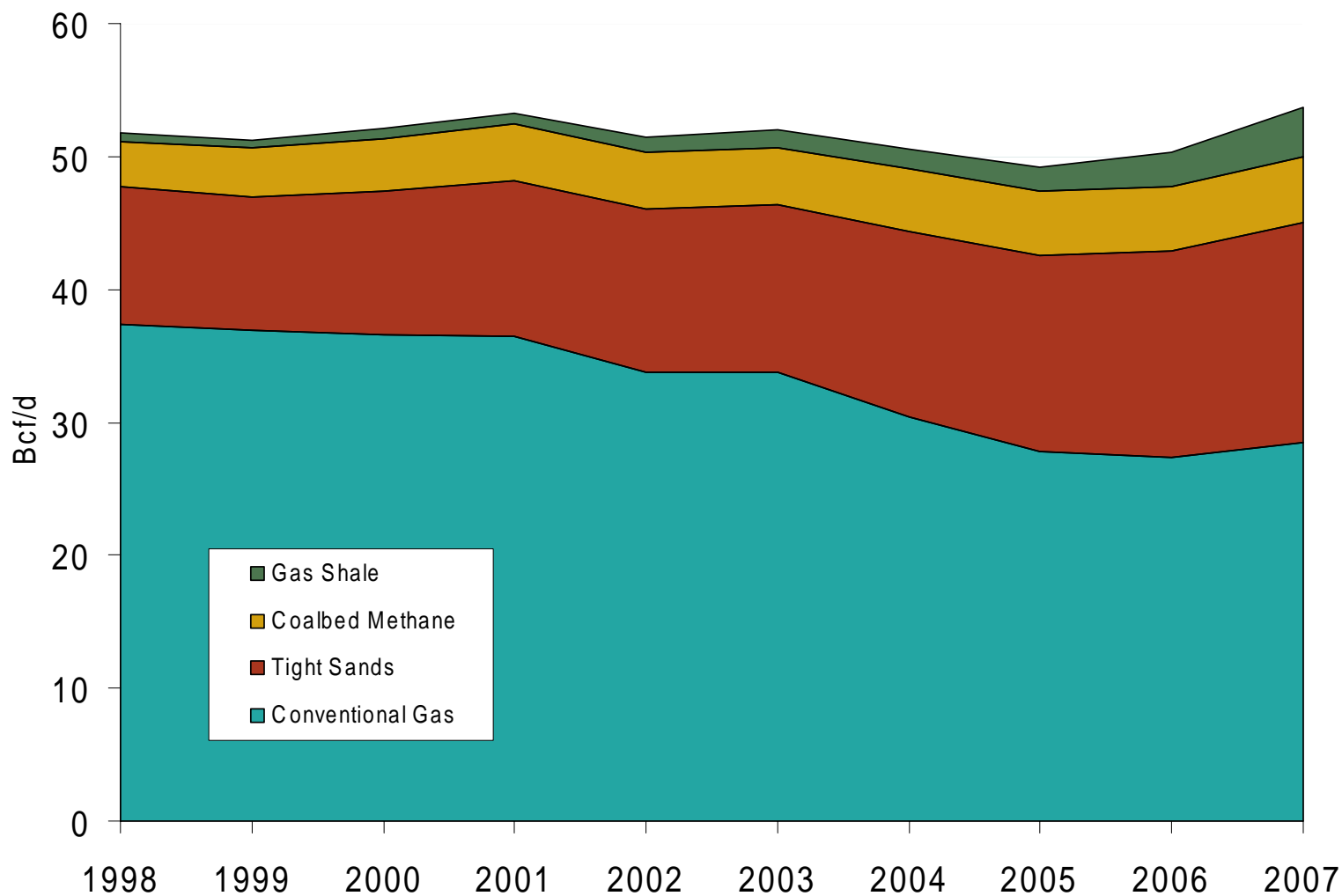
U.S. Natural Gas Supply and Consumption Jan-Jun



Major US Shale Basins



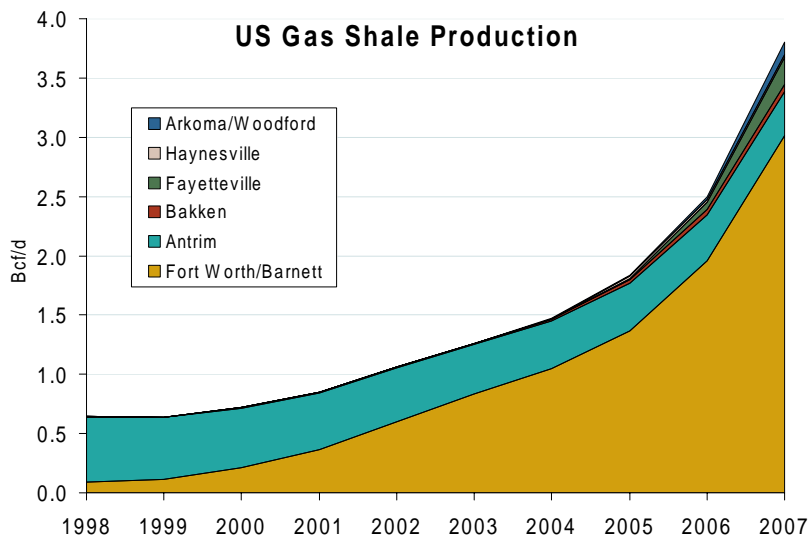
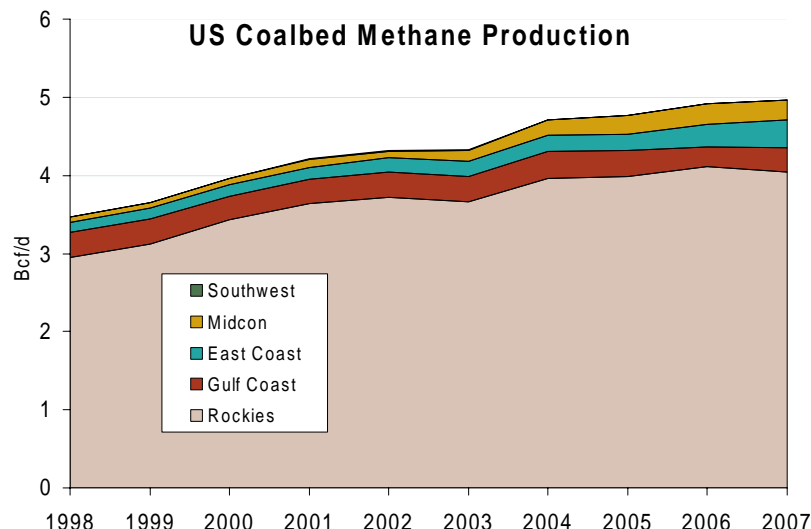
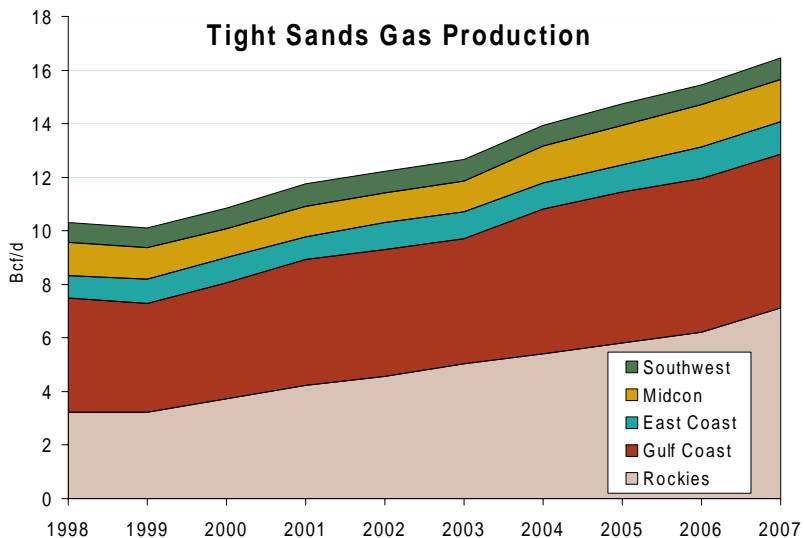
US Natural Gas Production



Source: Derived from EIA data.
September 2008 Midwest Snapshot Report

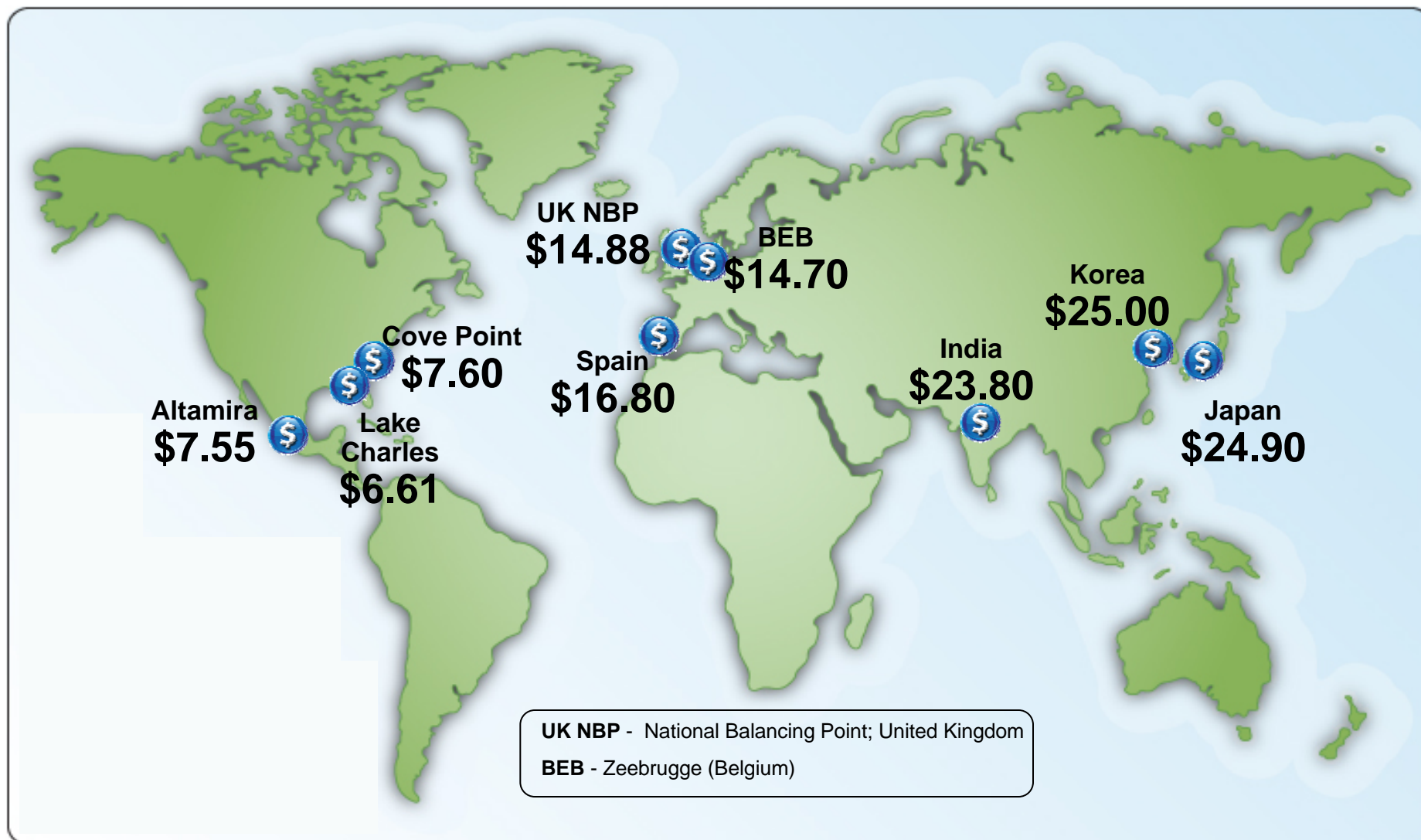
Updated September 5, 2008

“Unconventional” Natural Gas Production



Source: Derived from EIA data.
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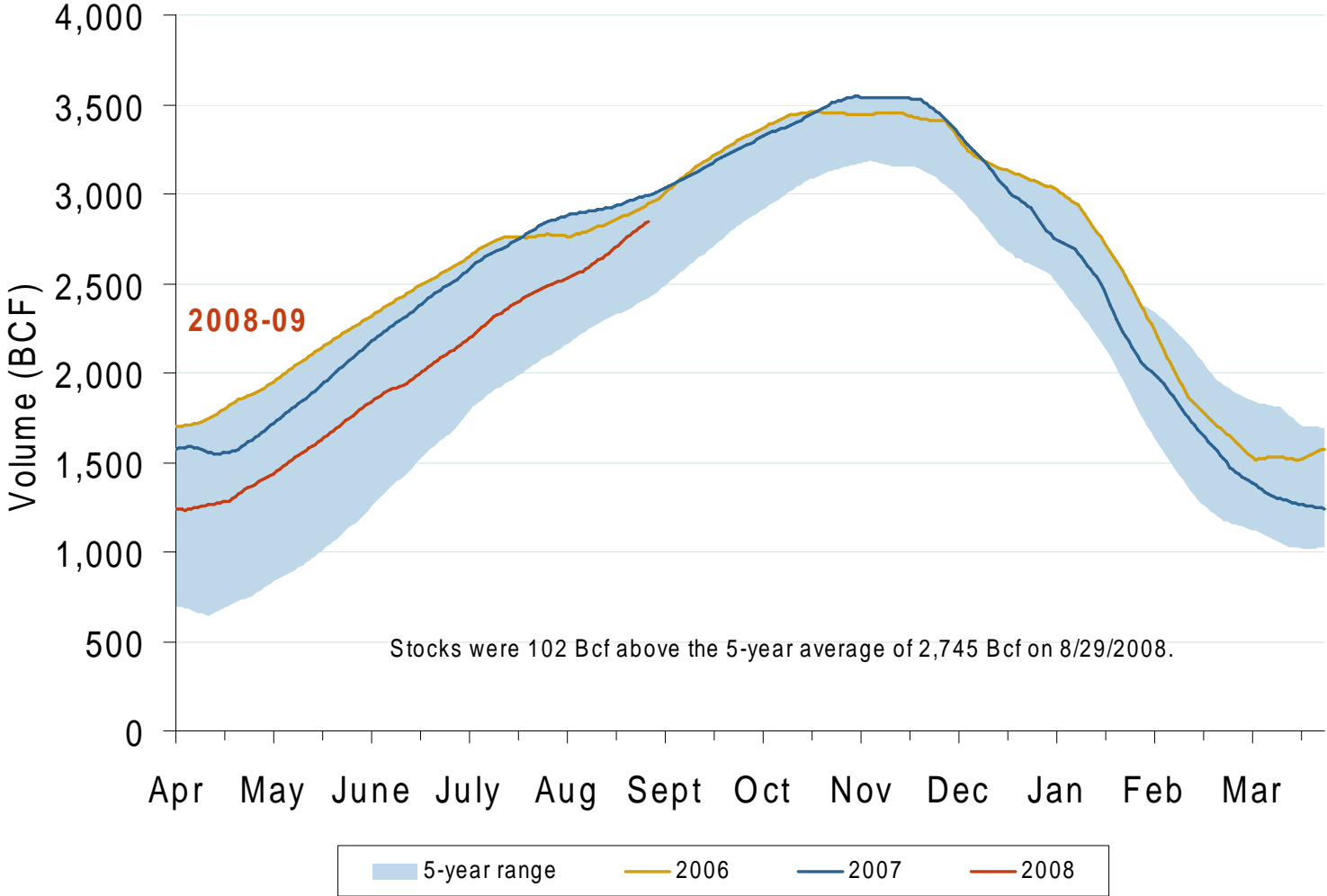
World LNG Landed Price Estimates for October 2008



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

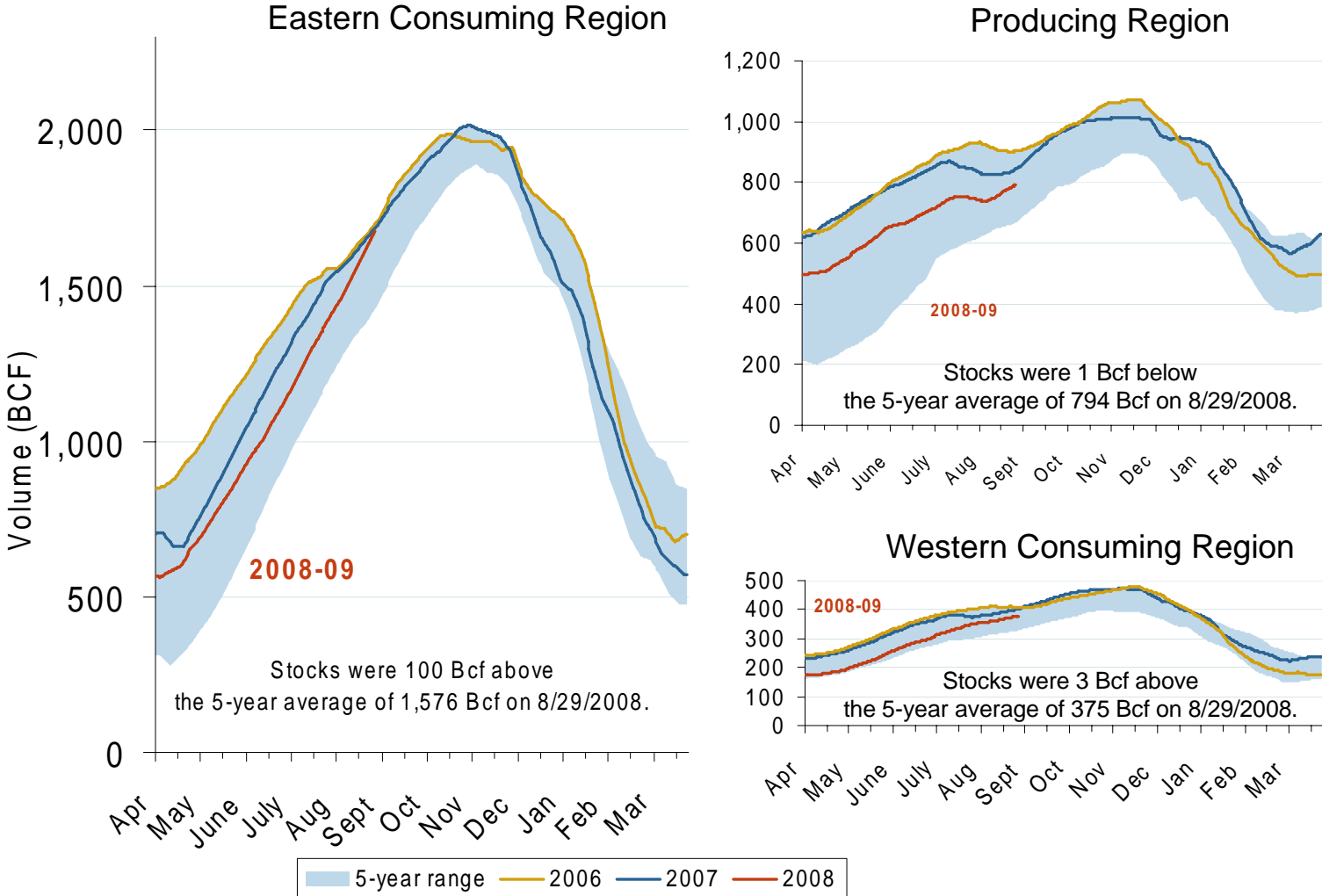
Updated September 5, 2008

Total U.S. Working Gas in Storage



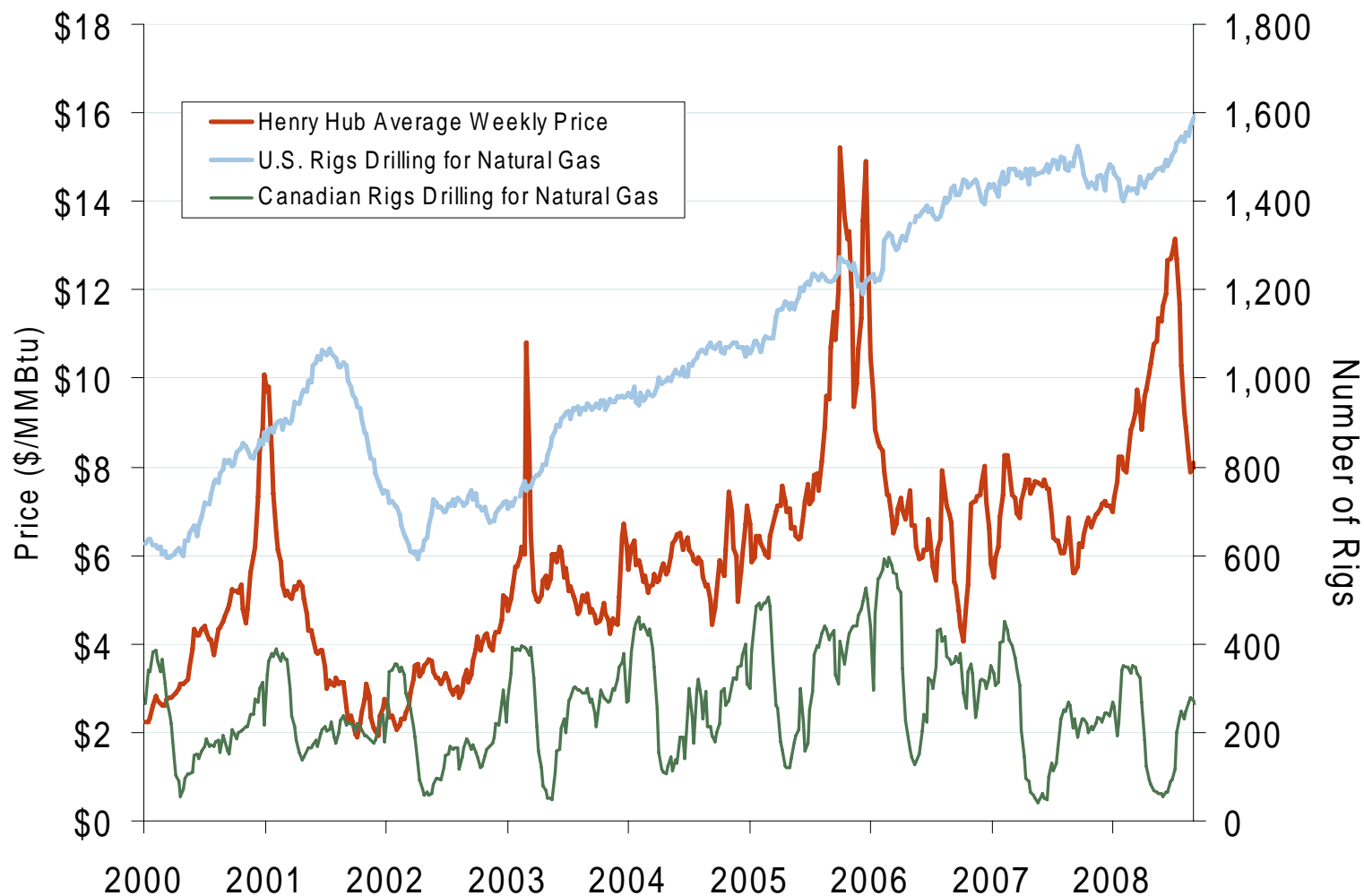
Source: Derived from EIA data.
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Regional Totals of Working Gas in Storage

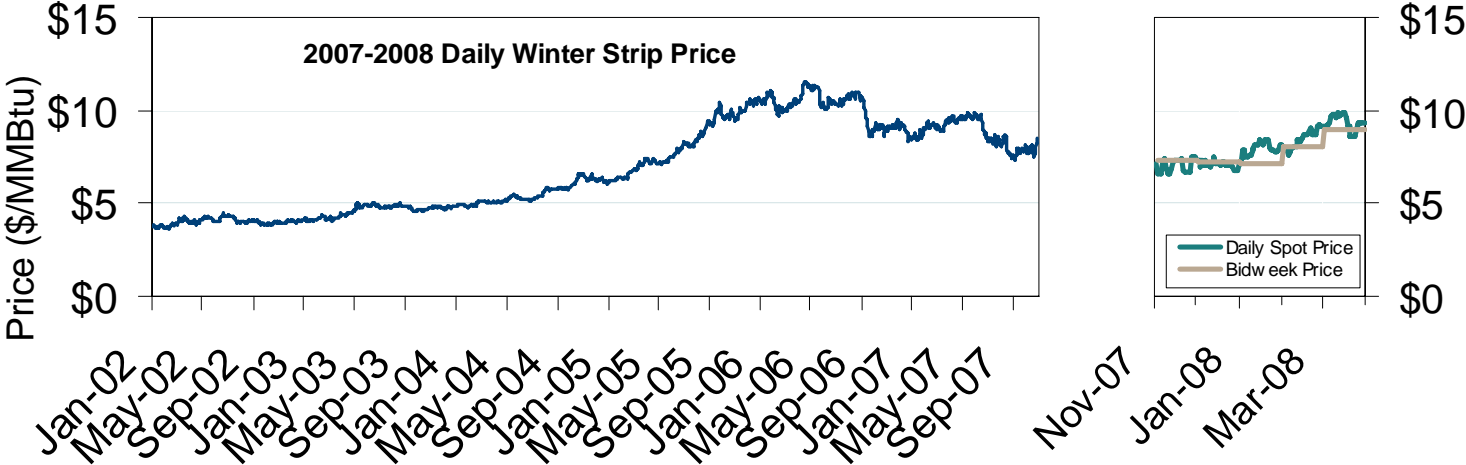
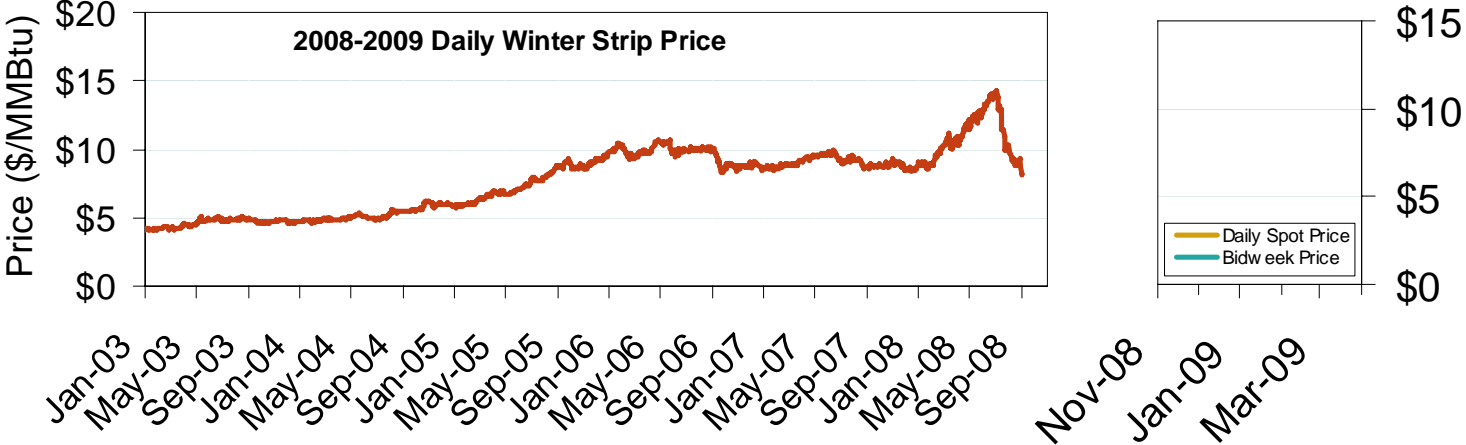


Source: Derived from EIA data. September 2008 Midwest Snapshot Report

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



Natural Gas Winter Futures Strip and Daily Henry Hub Spot and Bidweek Prices

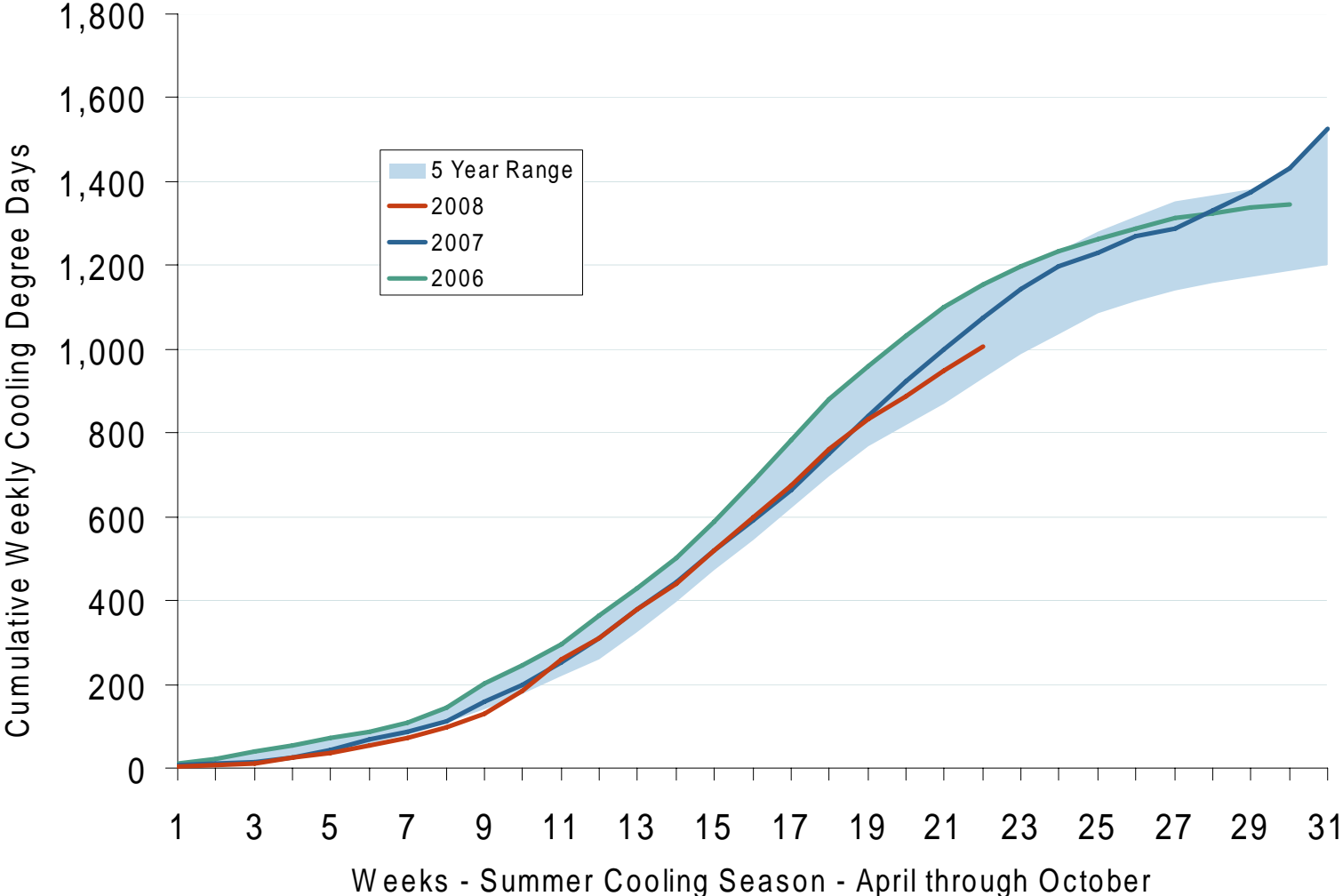


Source: Derived from *Platts* and *Nymex* data.
September 2008 Midwest Snapshot Report



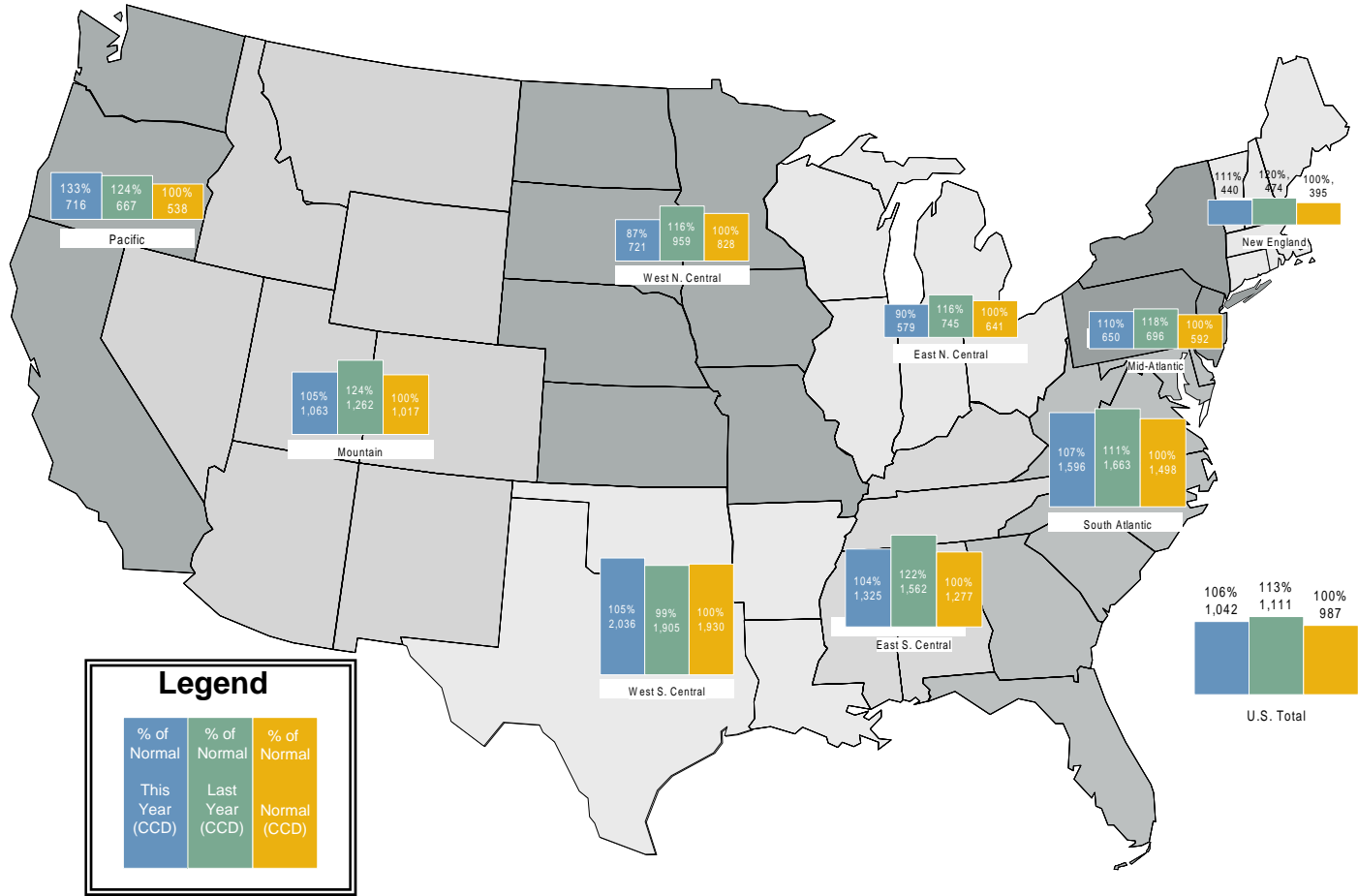
Market Fundamentals

U. S. Summer Cumulative Cooling Degree Days



Source: Derived from NOAA data.

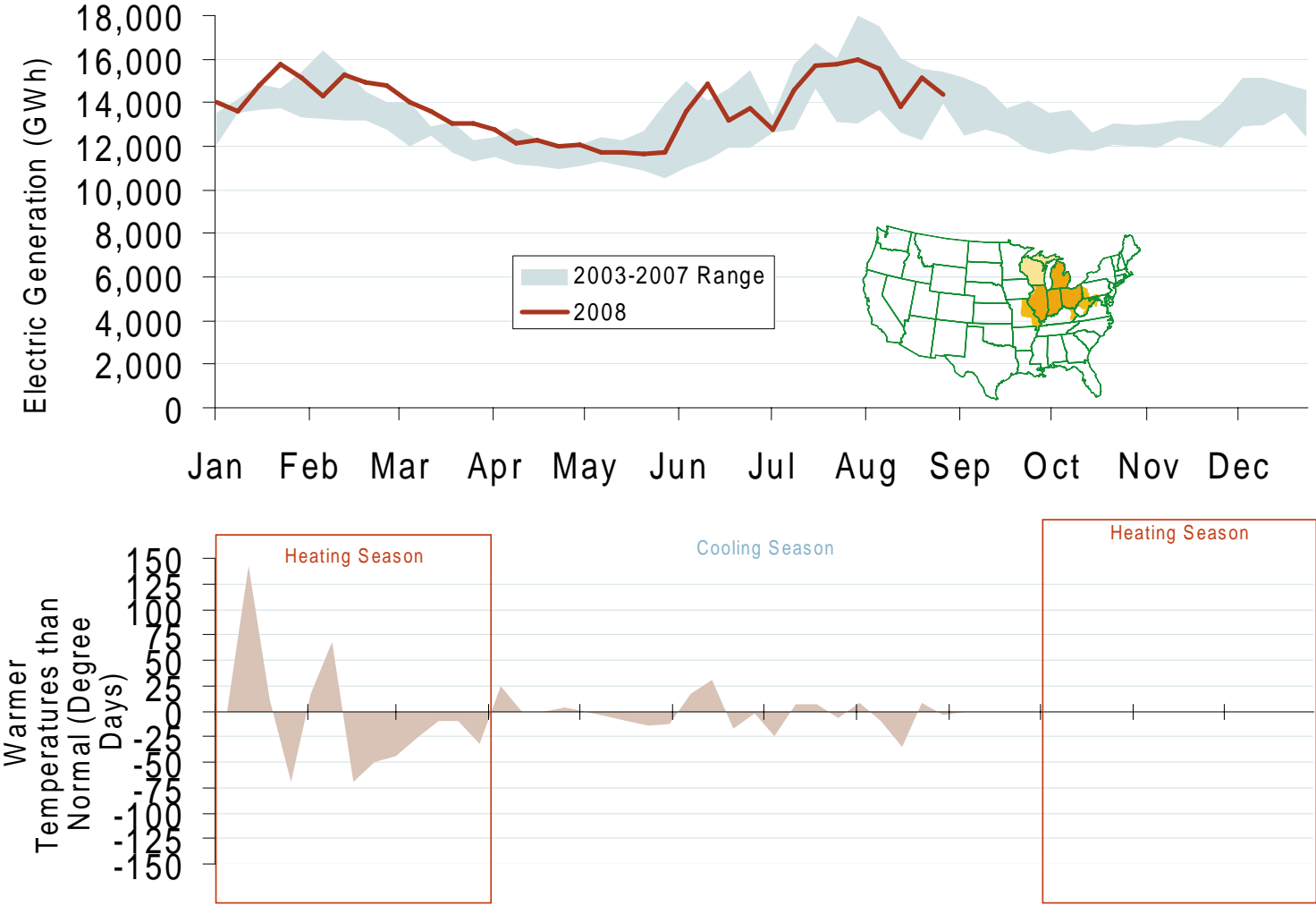
Regional Cooling Degree Days 2008 Through August



Source: Derived from NOAA data. Normal is based on a 30-year average of cooling degree days. September 2008 Midwest Snapshot Report

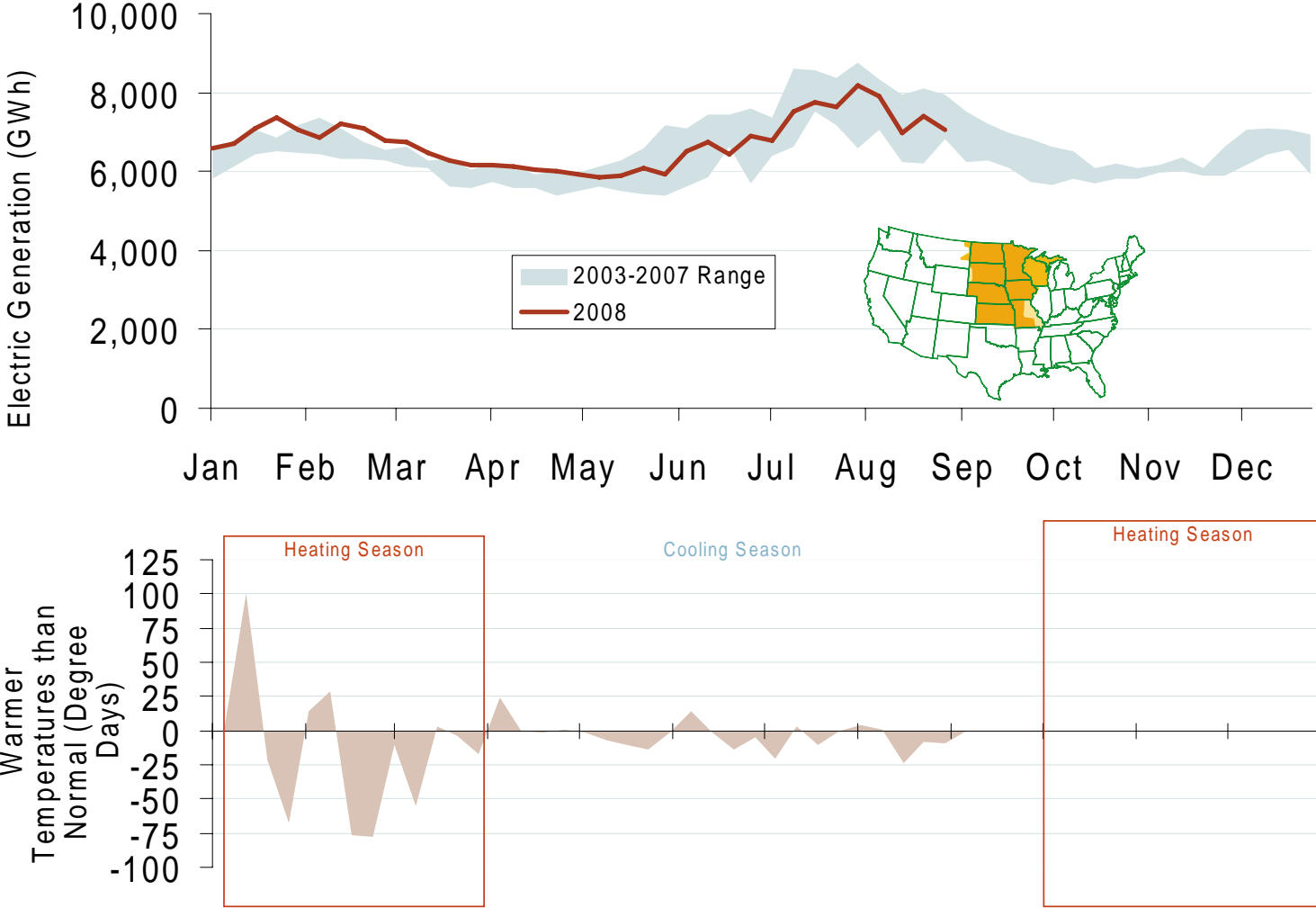
Updated September 5, 2008

Weekly Electric Generation Output and Temperatures Central Industrial Region



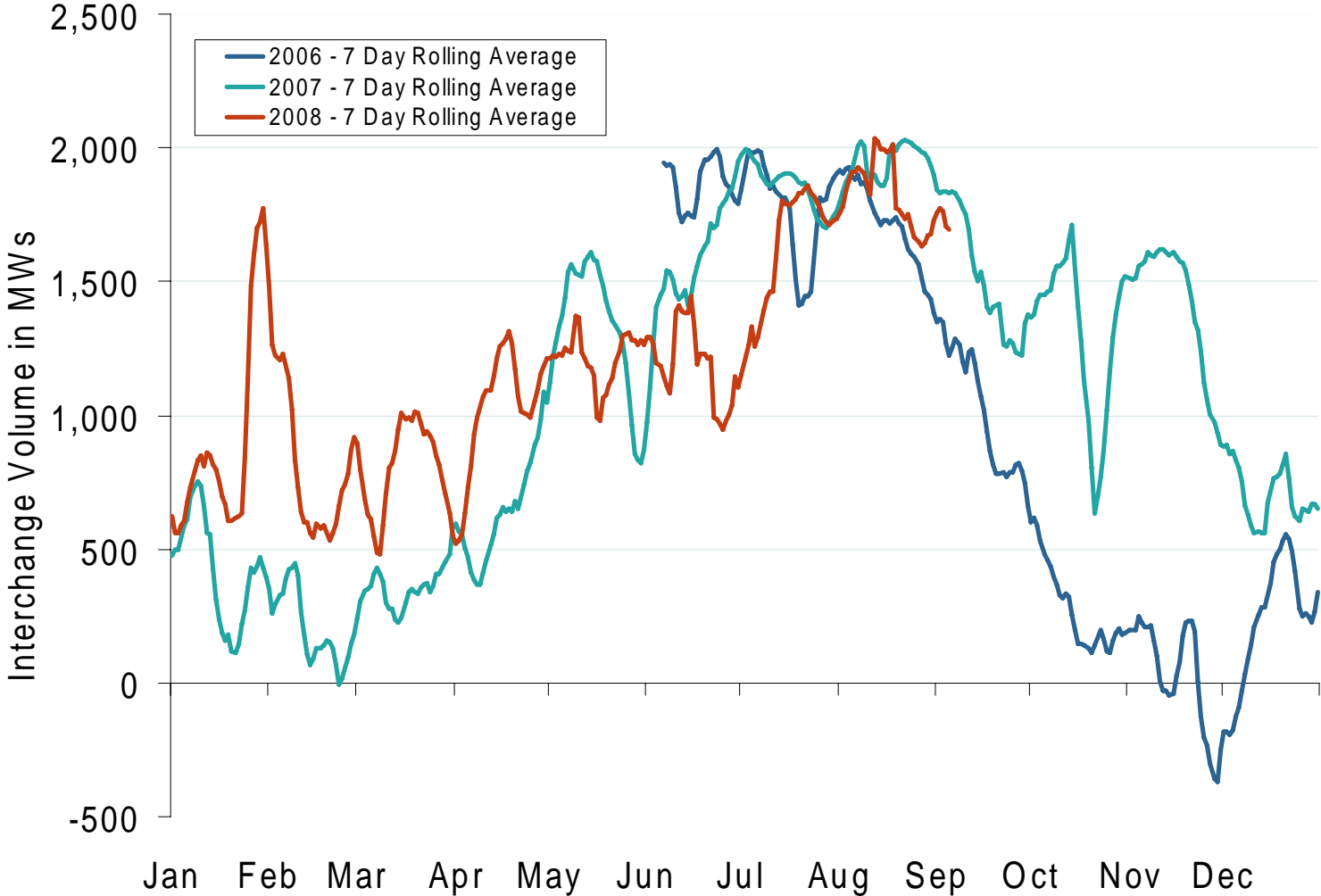
Source: Derived from *EEl* and NOAA data.
September 2008 Midwest Snapshot Report

Weekly Electric Generation Output and Temperatures West Central Region



Source: Derived from *EI* and *NOAA* data.
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Imports into MISO from Manitoba Hydro 2006, 2007, 2008



Source: Derived from MISO data.
September 2008 Midwest Snapshot Report

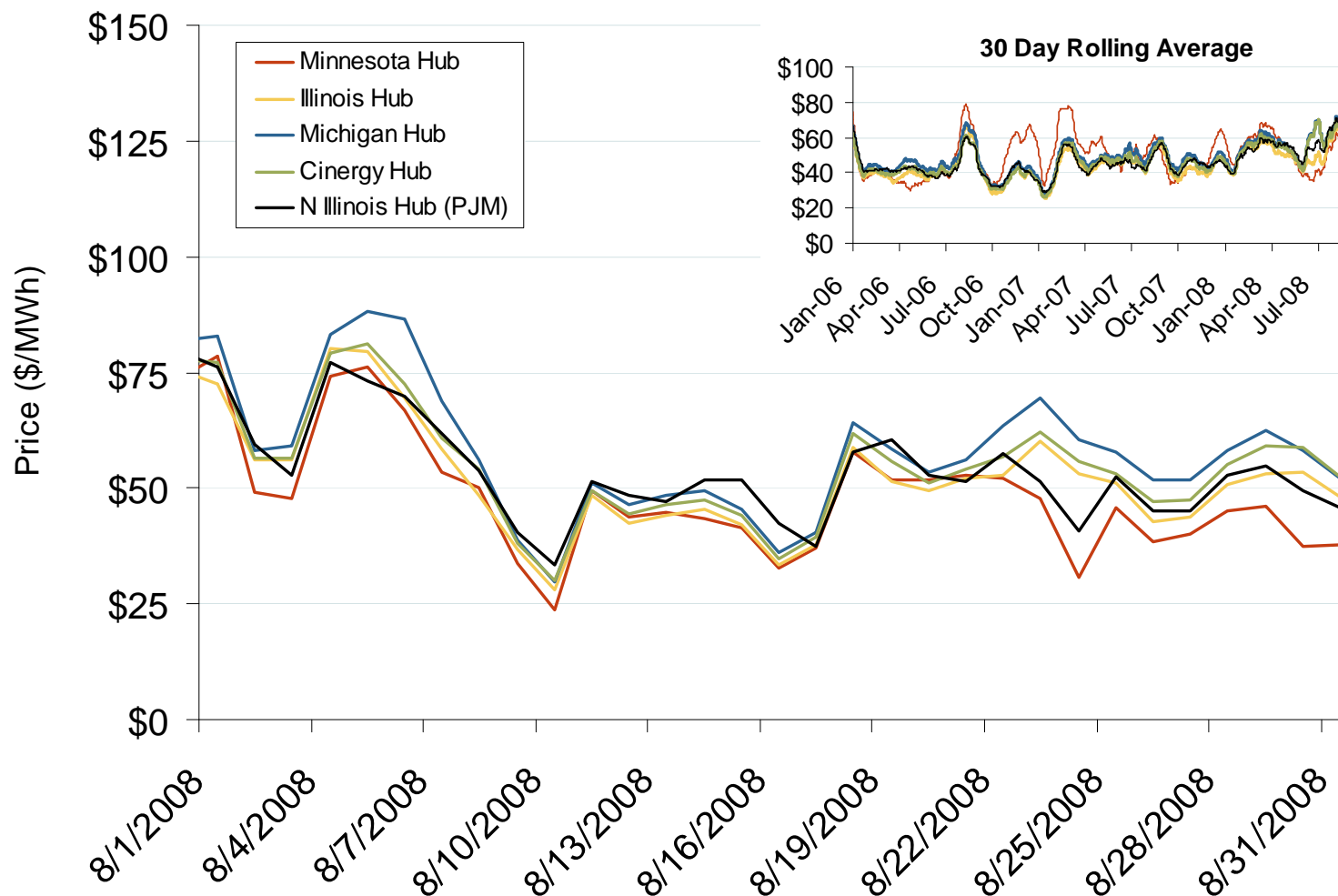
Updated September 5, 2008



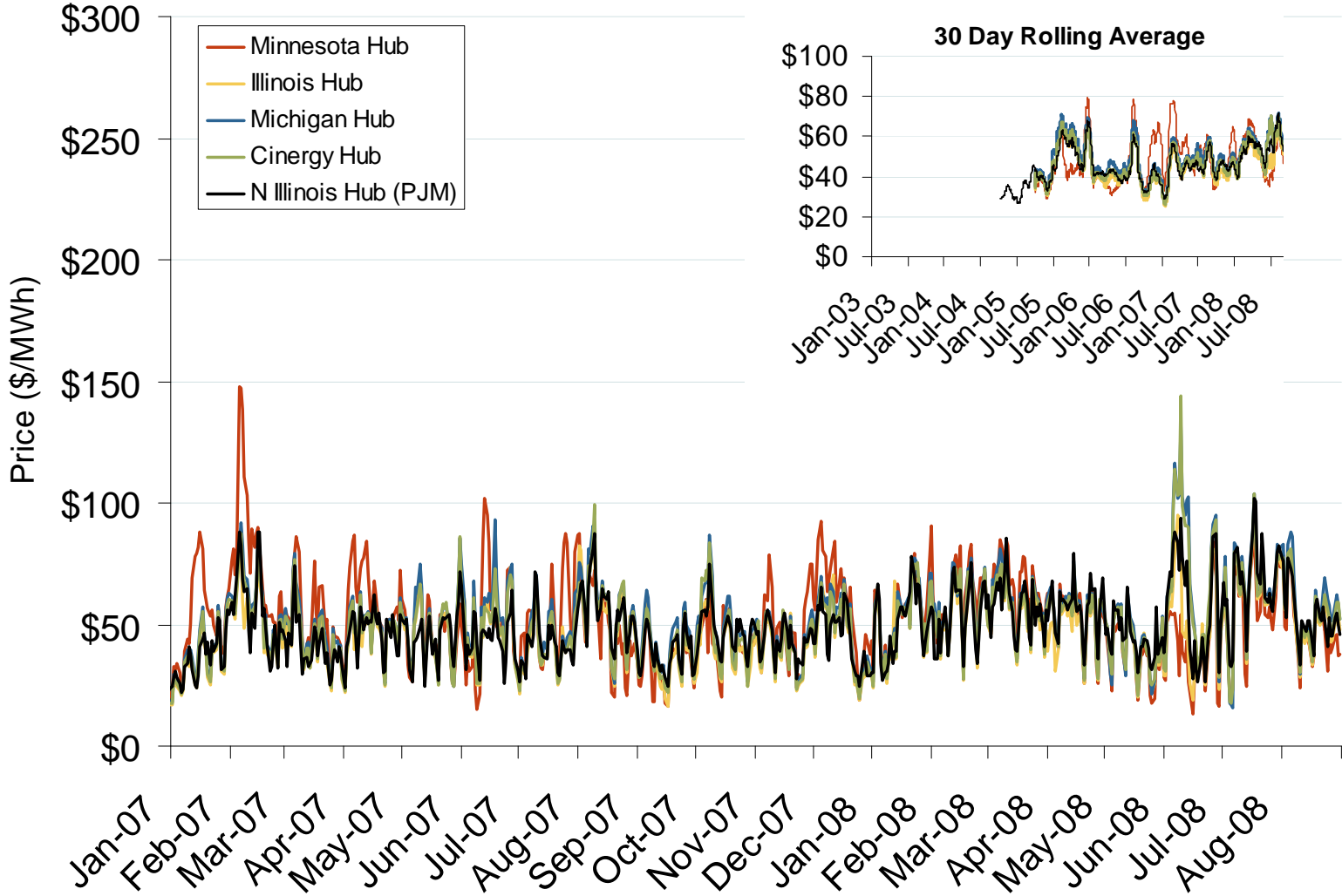
Prices and Market Analysis

- **Electric**
- **Natural Gas**
- **Other Markets**

Daily Average of MISO Day-Ahead Prices - All Hours

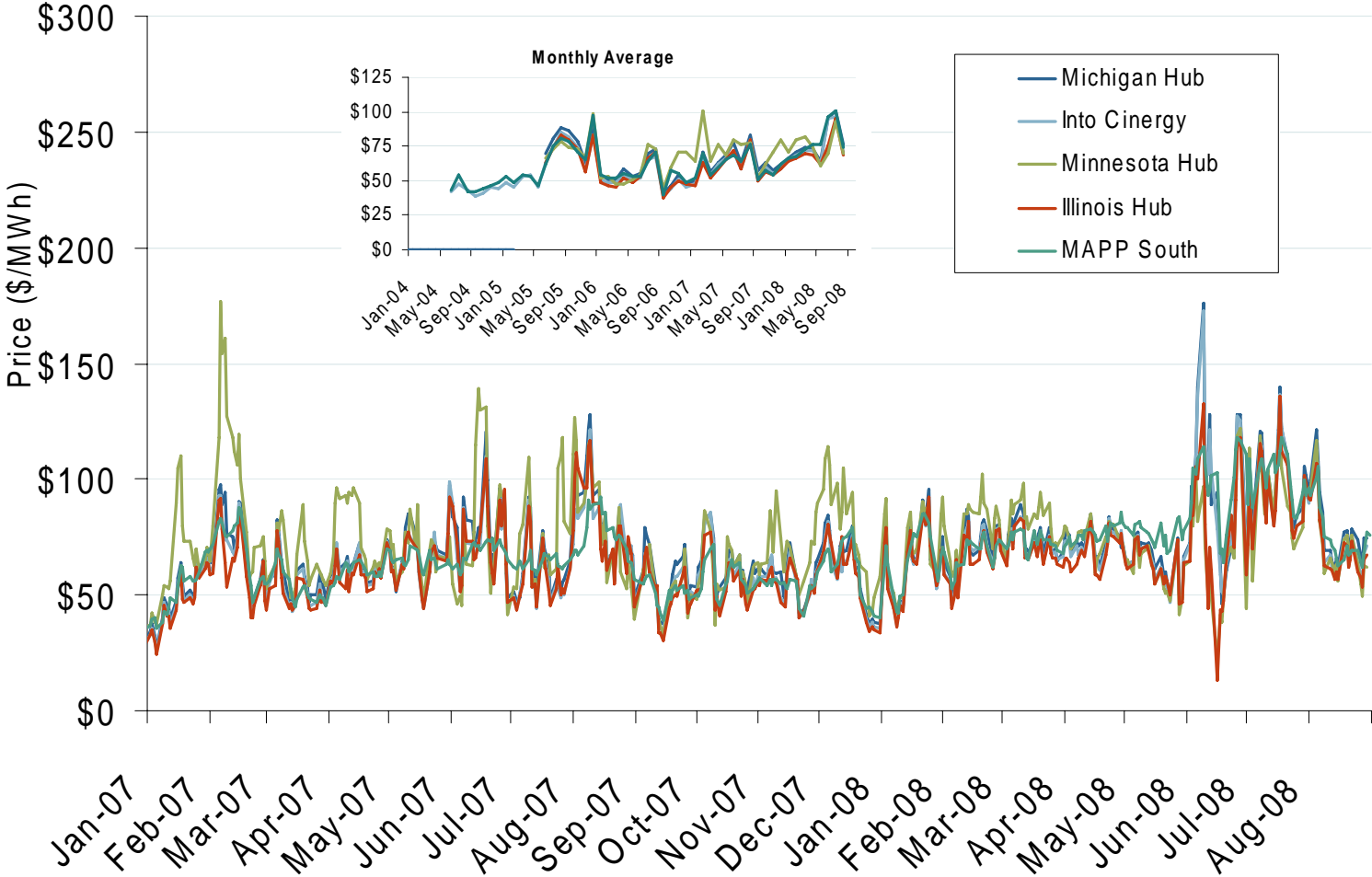


Daily Average of MISO Day-Ahead Prices - All Hours



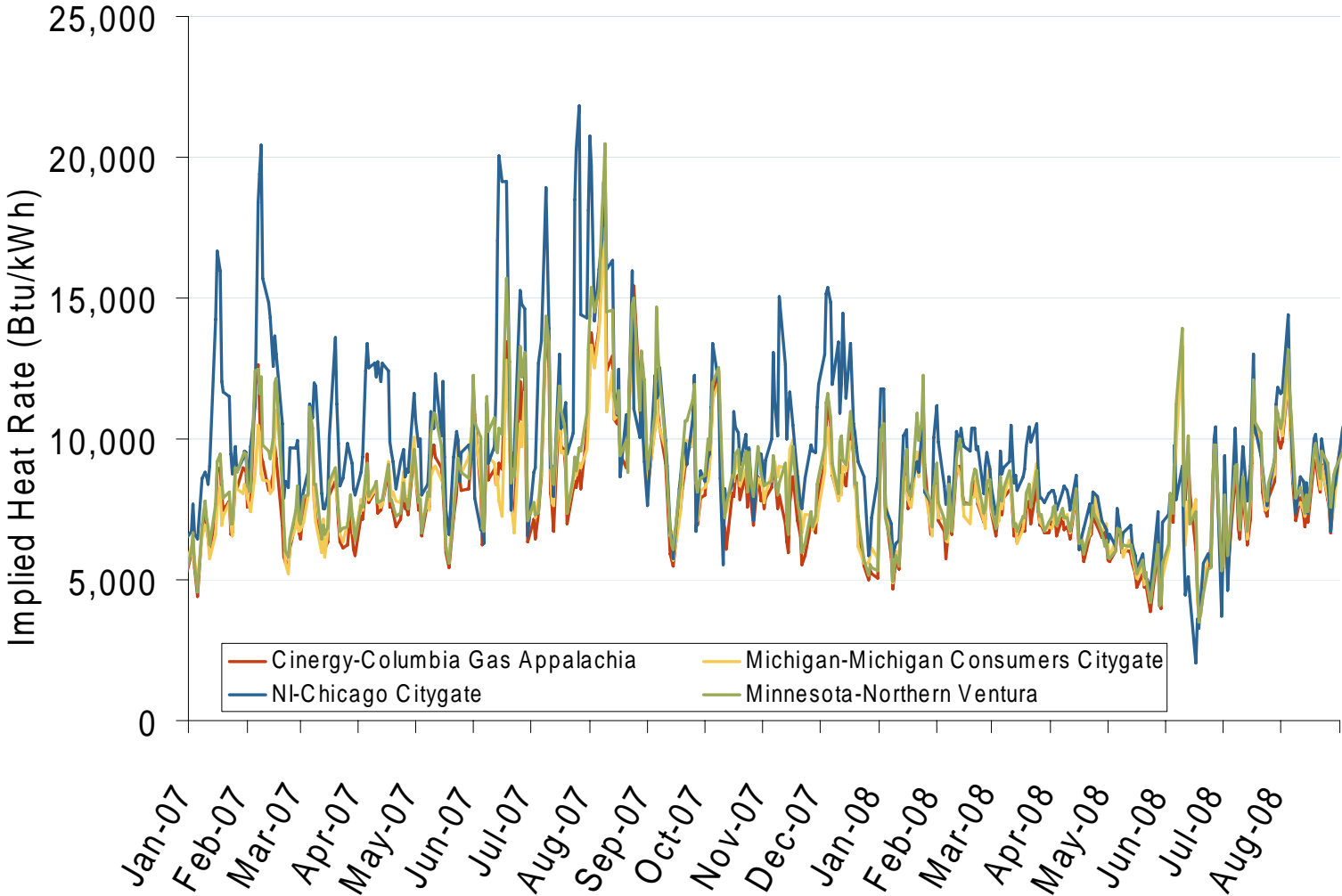
Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.
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MISO Hub Bilateral Day-Ahead On-Peak Prices



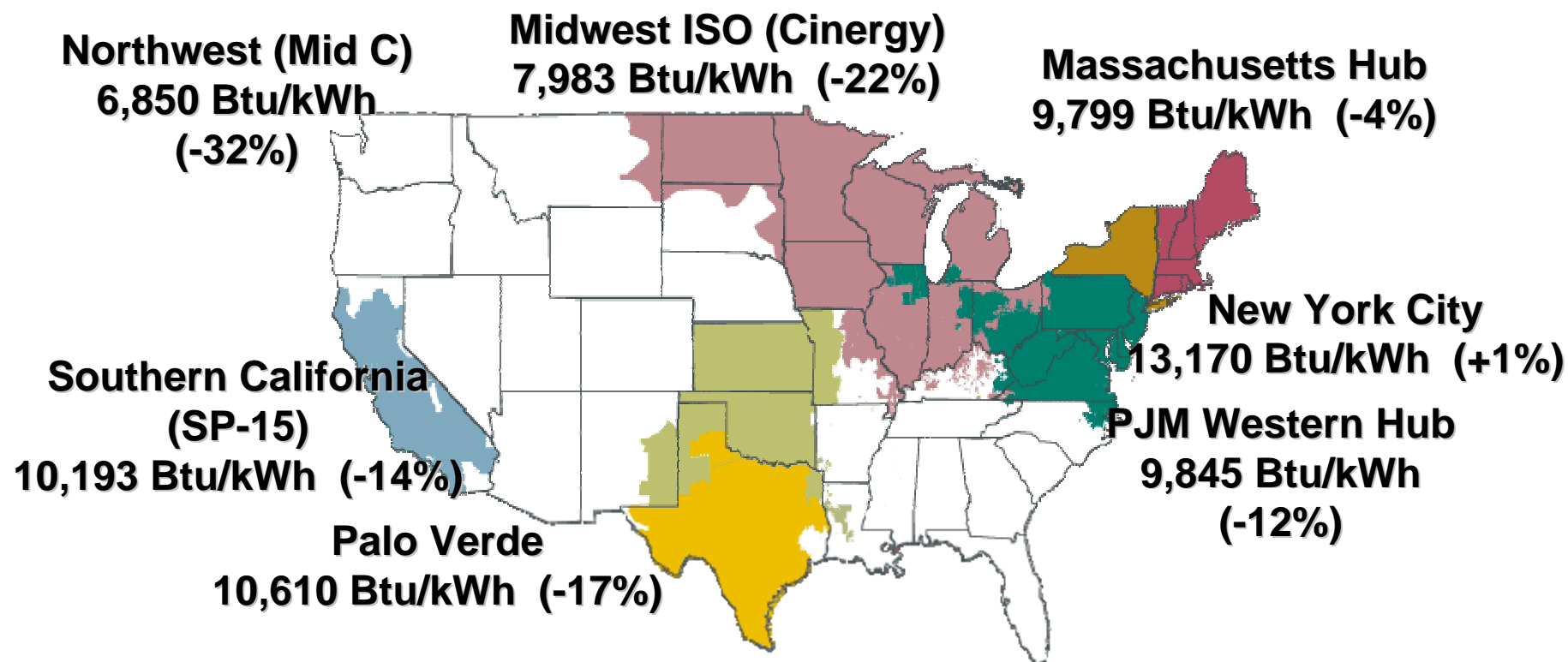
Source: Derived from *Platts* data.
September 2008 Midwest Snapshot Report

Implied Heat Rates at MISO Hubs

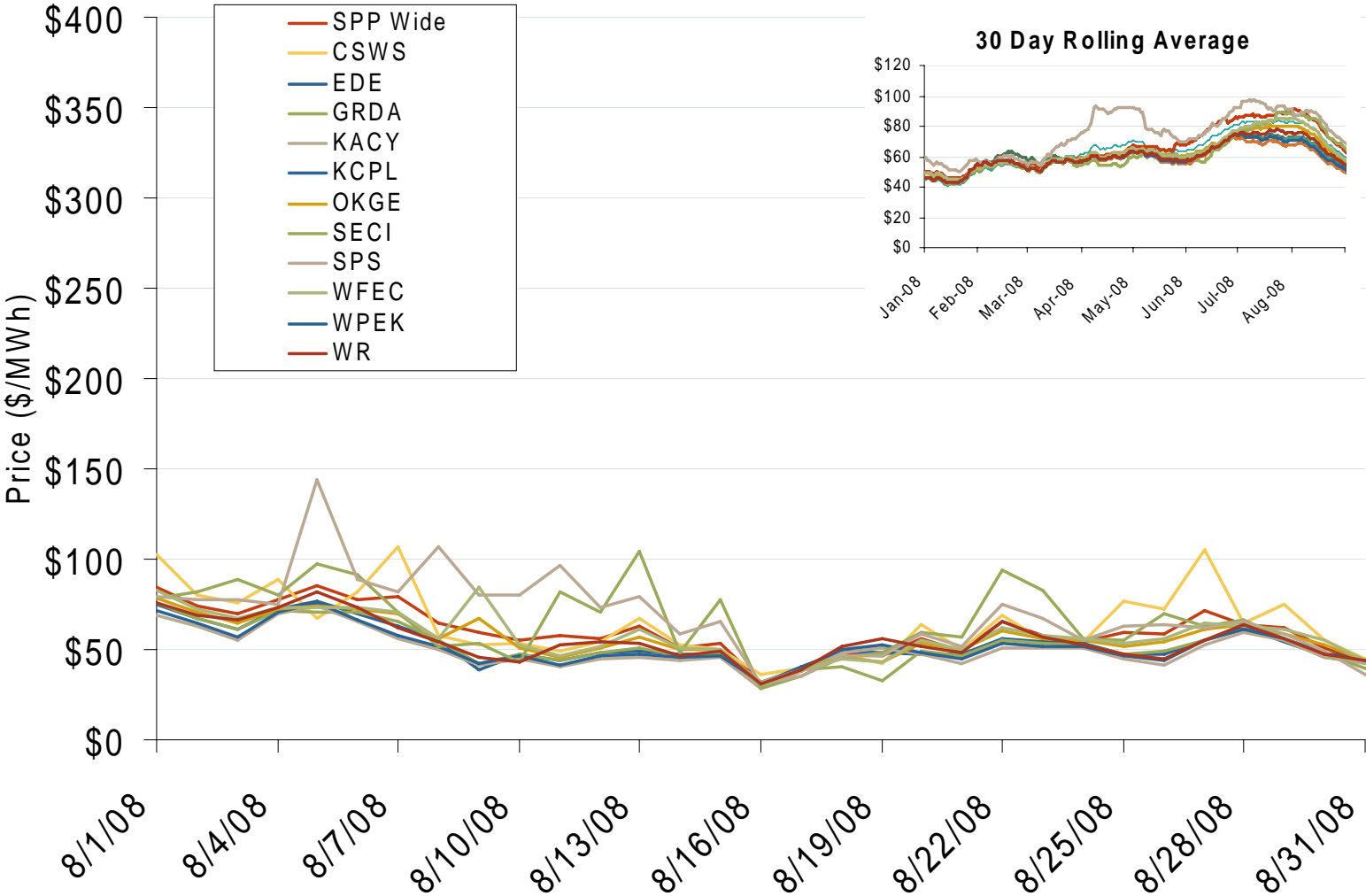


Source: Derived from *Platts* data
September 2008 Midwest Snapshot Report

June-August Implied Heat Rates, 2008 vs. 2007

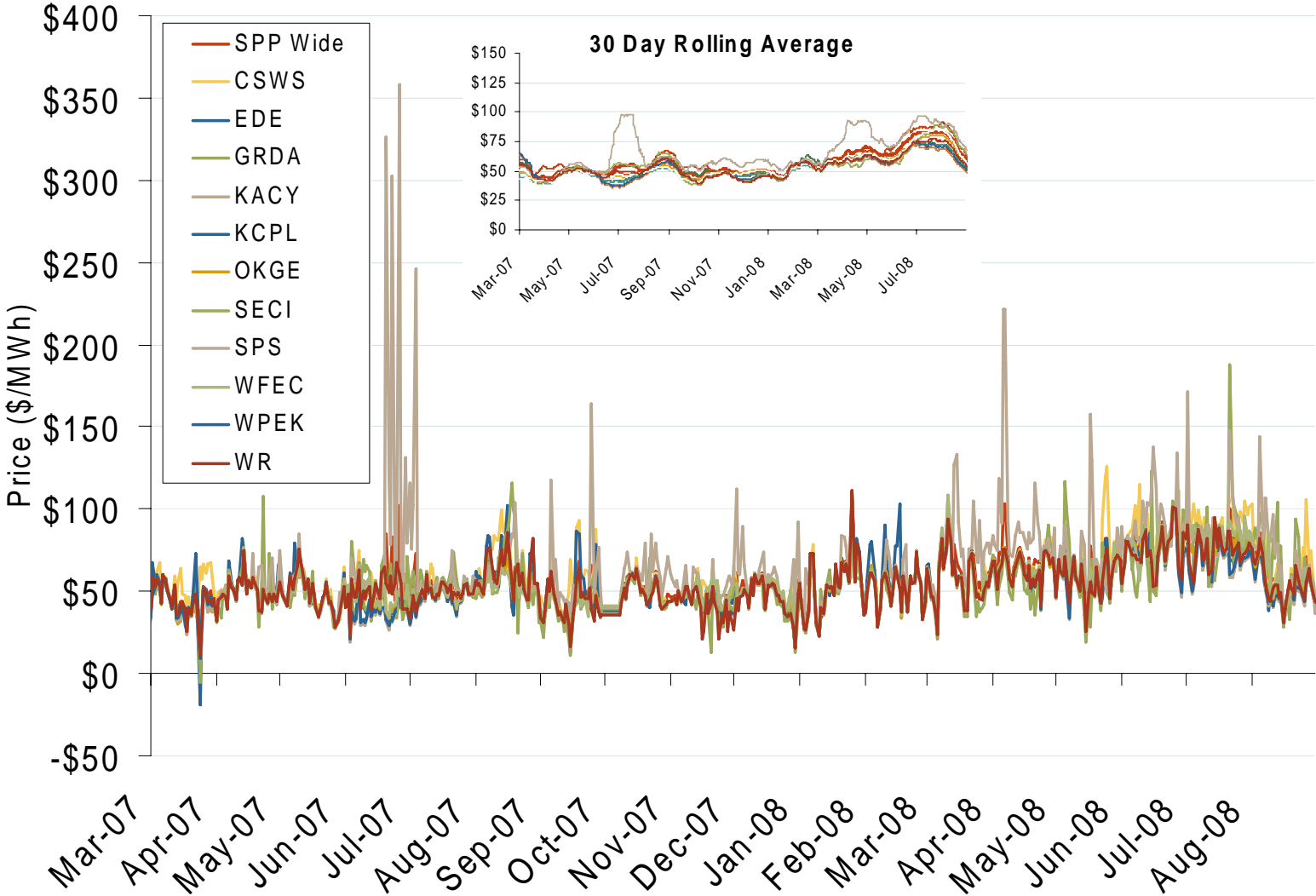


Daily Average of SPP Real Time Prices - All Hours



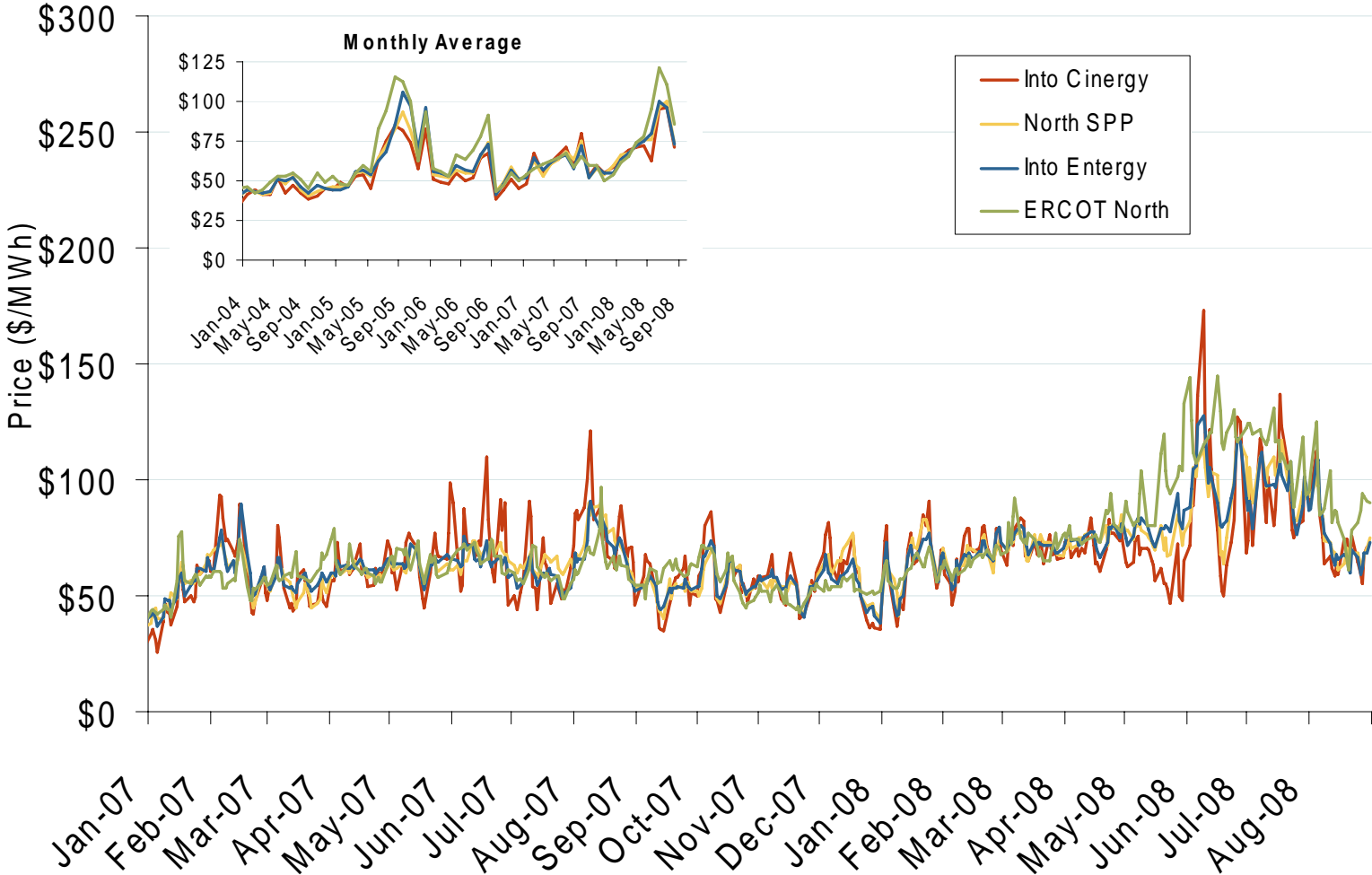
Source: Derived from SPP data. September 2008 Midwest Snapshot Report

Daily Average of SPP Real Time Prices - All Hours



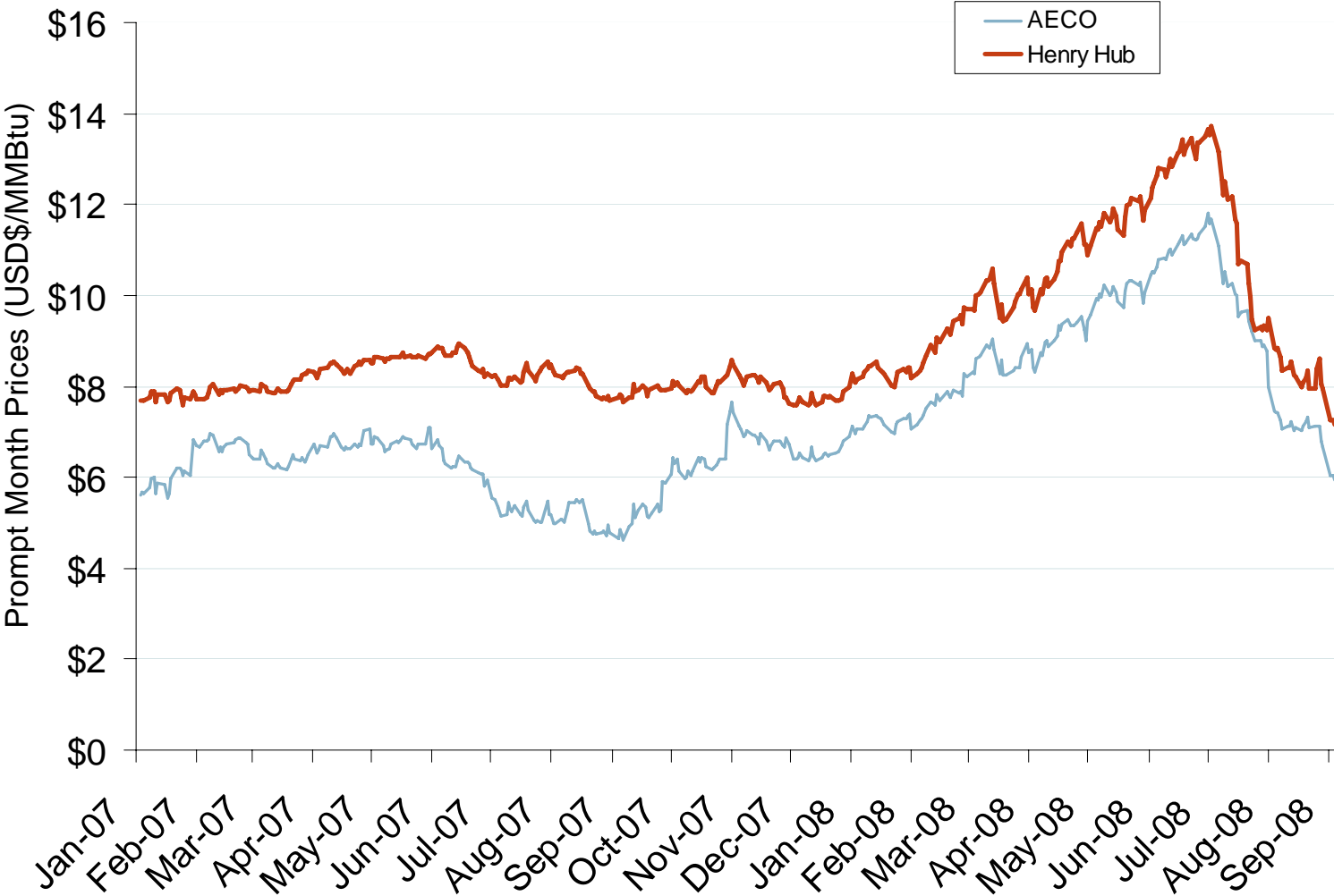
Source: Derived from SPP data.
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Central Daily Bilateral Day-Ahead On-Peak Prices



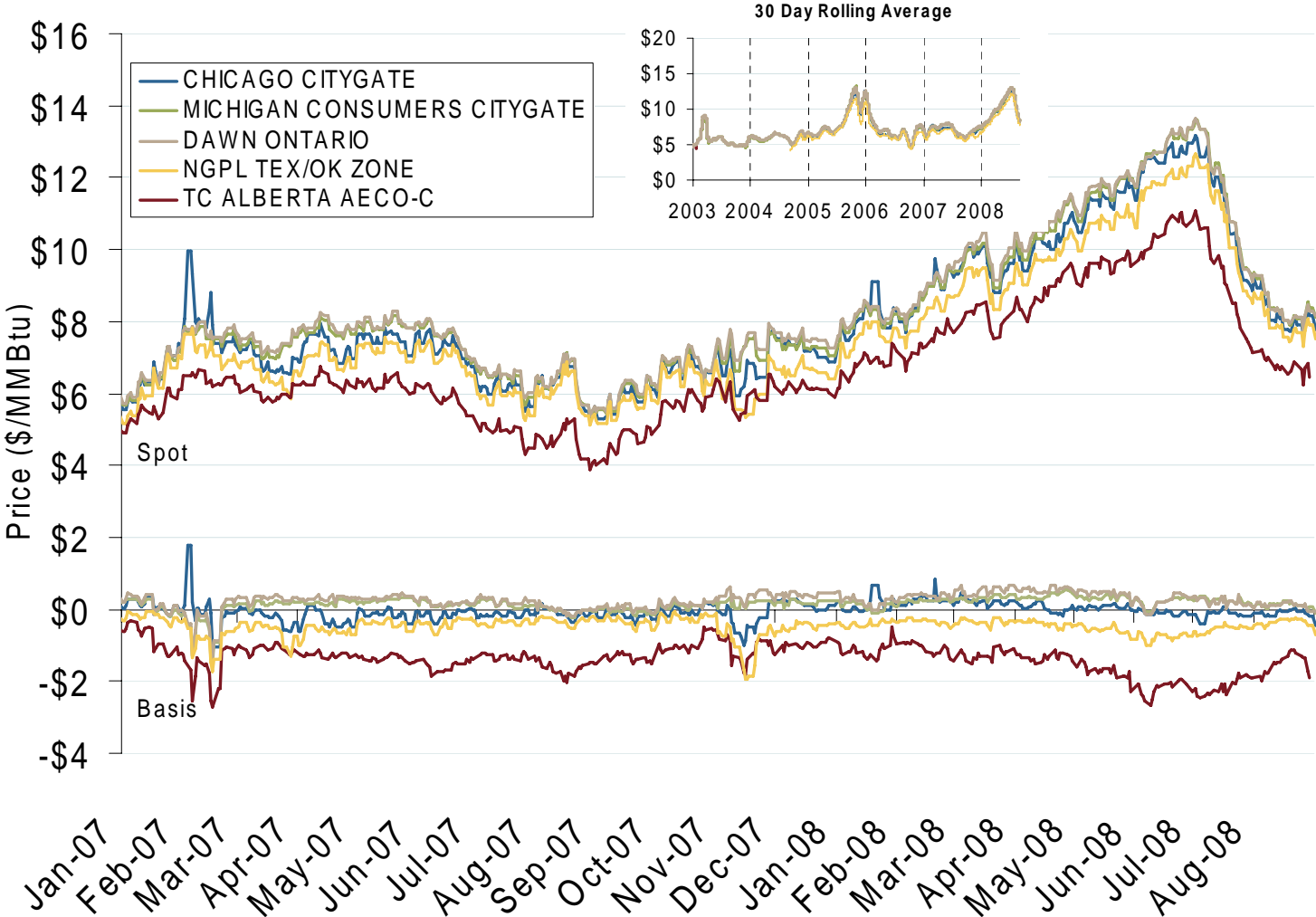
Source: Derived from *Platts* data.
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Henry Hub and AECO Prompt-Month Futures Prices



Source: Derived from ICE data.
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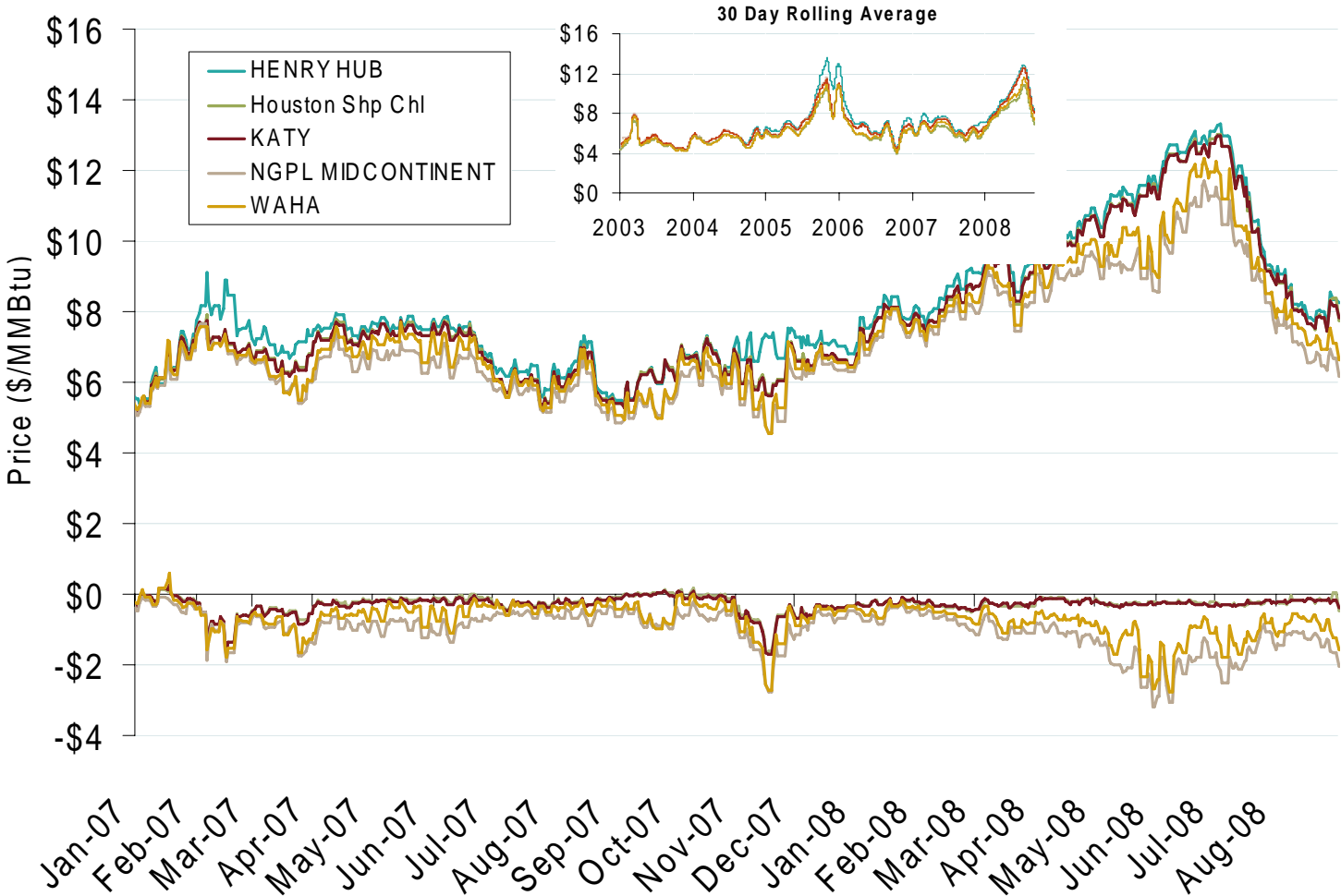
Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.
September 2008 Midwest Snapshot Report

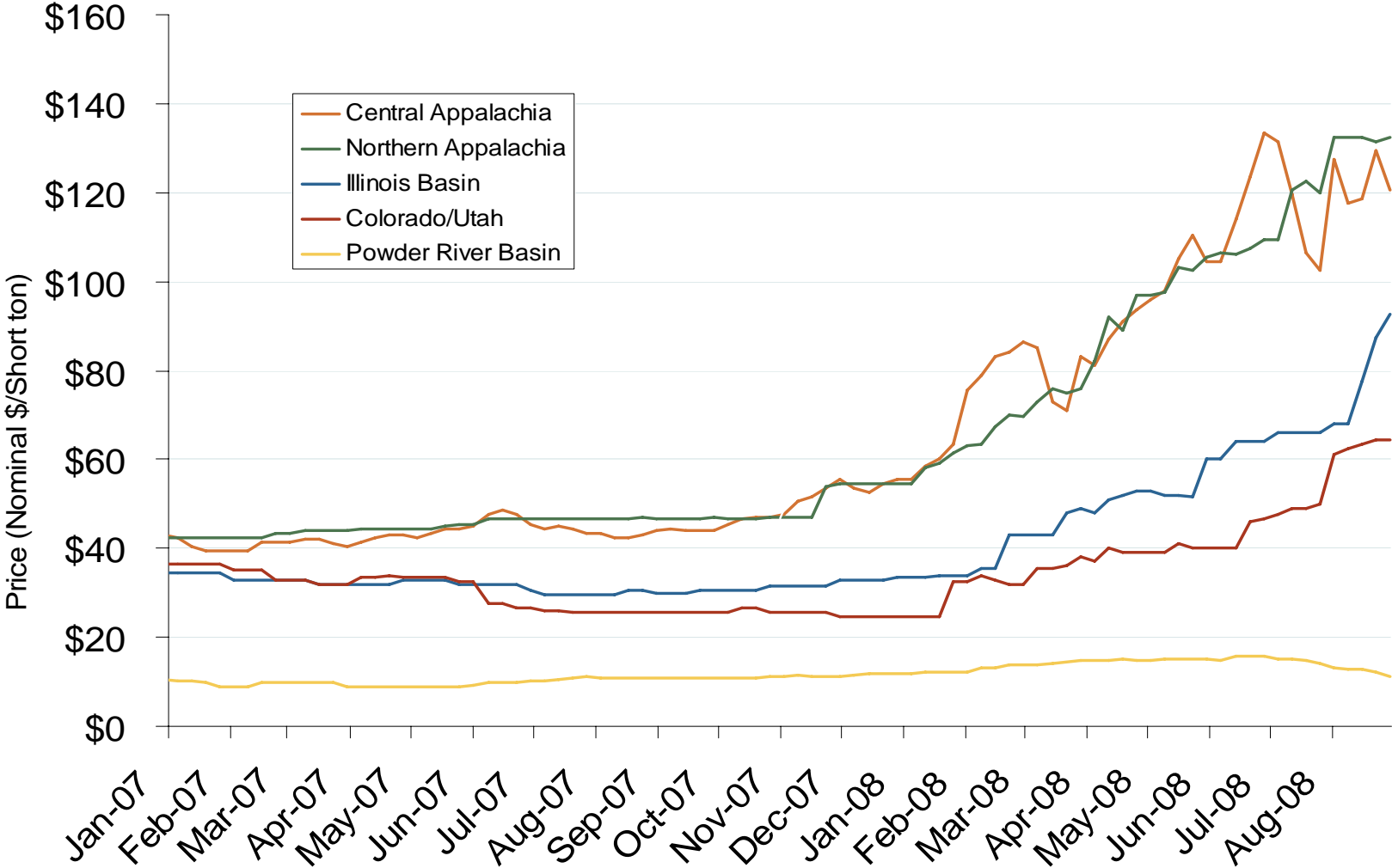
Updated September 5, 2008

South Central Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.
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Regional Coal Spot Prices

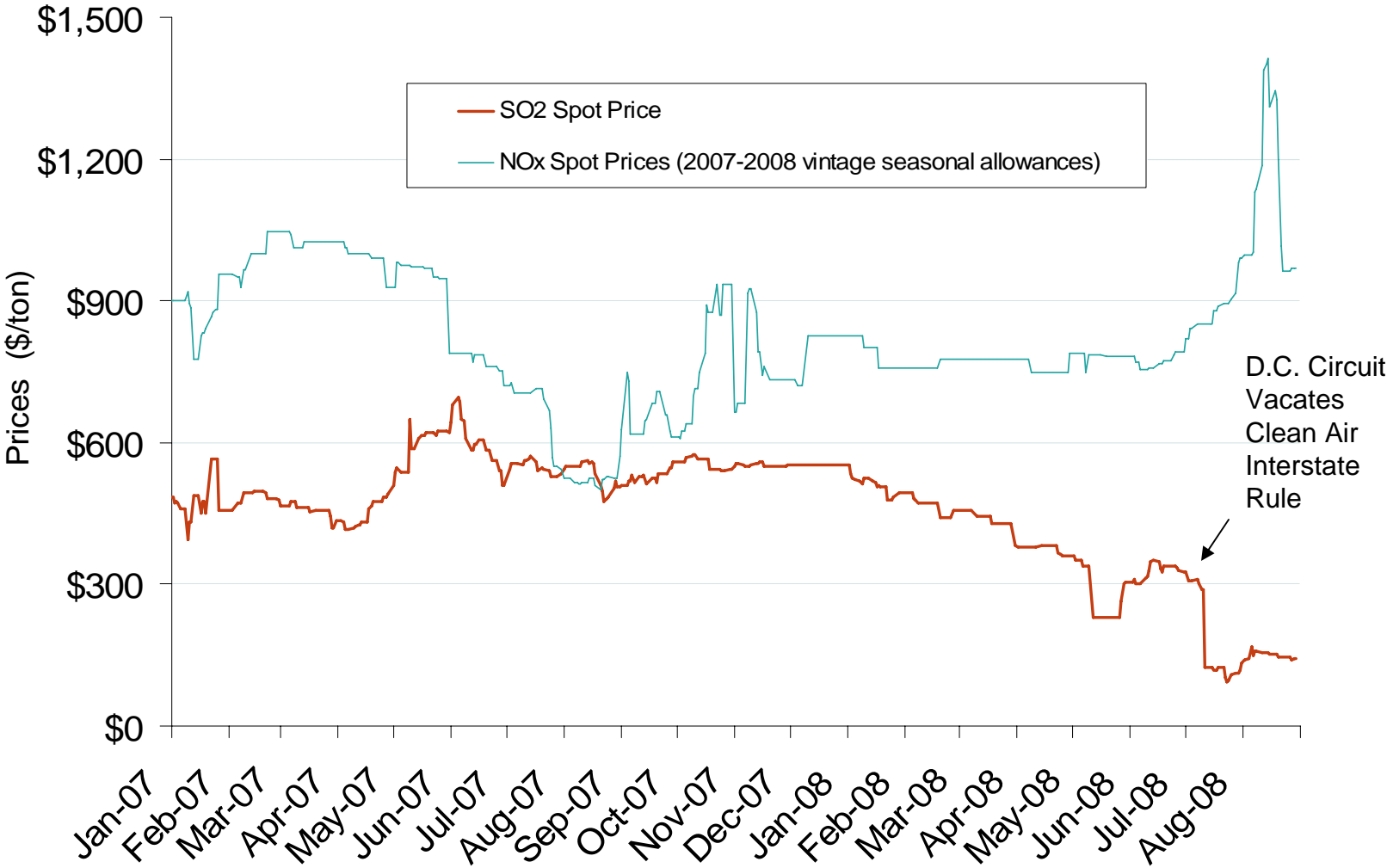


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.
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SO₂ Allowance Spot Prices and NOx Seasonal Allowance Spot Prices

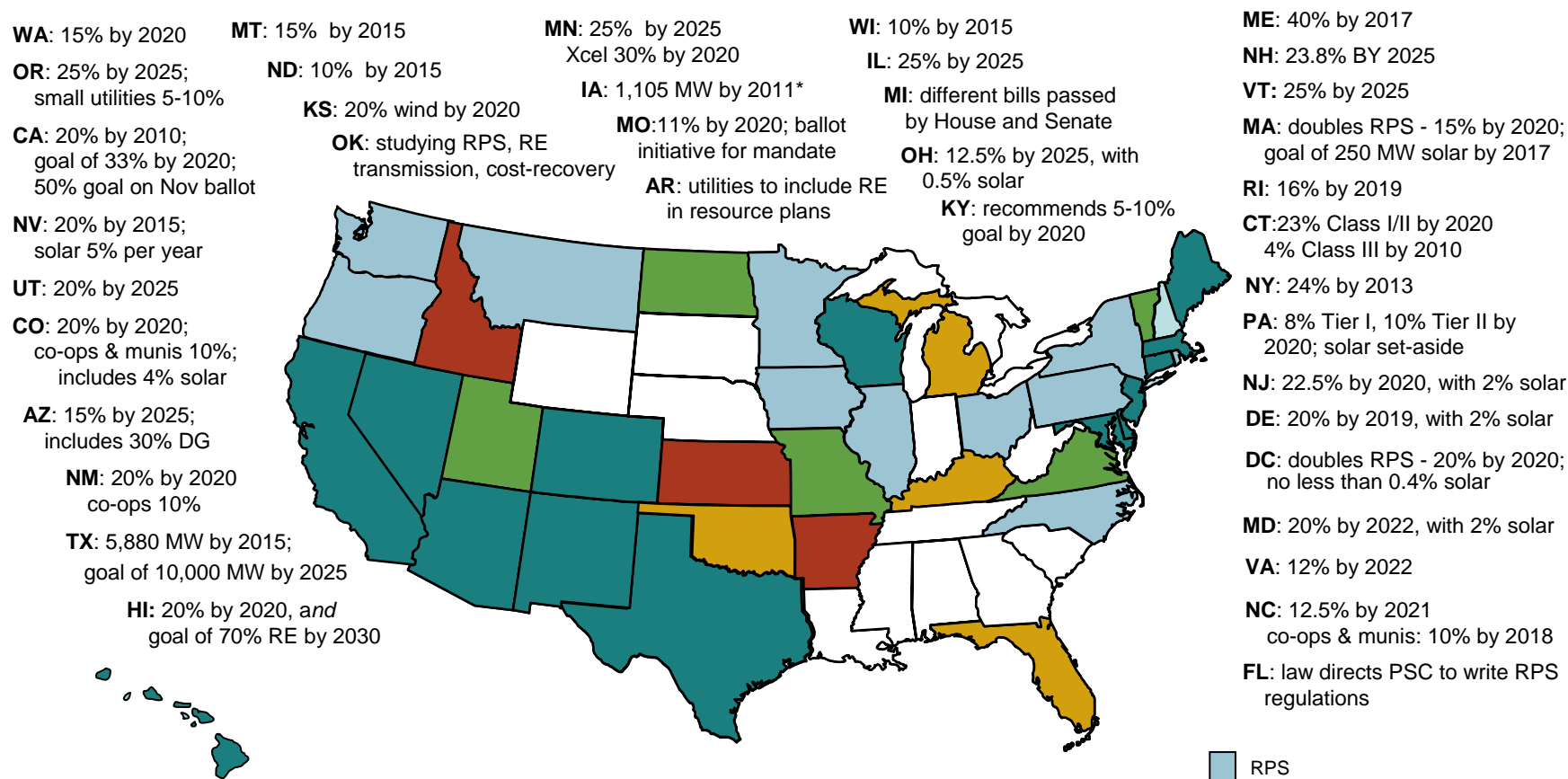


Source: Derived from Cantor Fitzgerald data.

See notes on following pages.
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Updated August 14, 2008

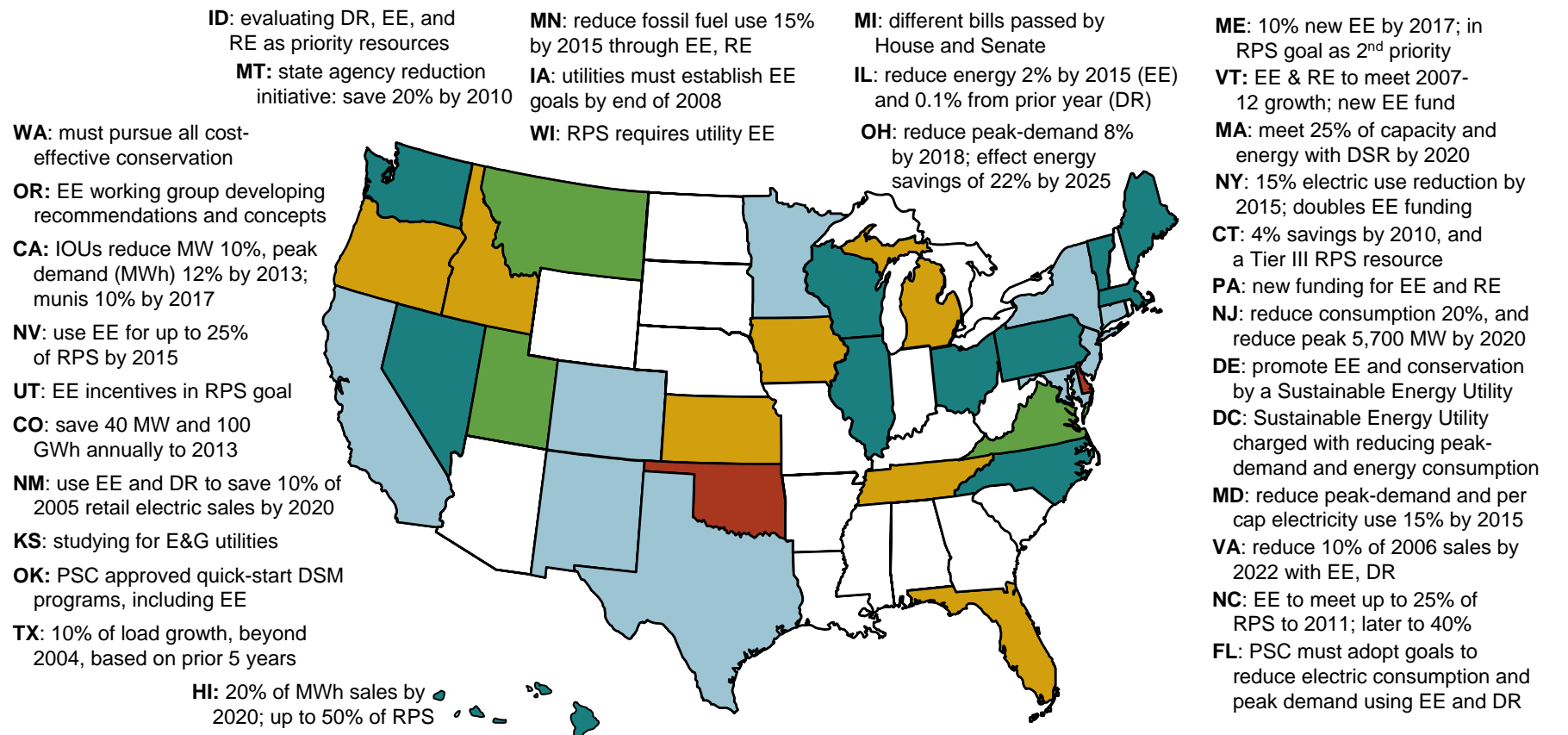
Renewable Energy Portfolio Standards (RPS)



Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rps.pdf>

Notes: Alaska has no RPS; DG is distributed generation; * Iowa has a goal of 1,000 MW of wind by 2010
Sources: Derived from data in: EEI, EIA, LBNL, PUCs, State legislative tracking services, Database of State Incentives for Renewables and Efficiency, and the Union of Concerned Scientists.

Energy Efficiency Resource Standards (EERS)



Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-eeeps.pdf>

Abbreviations: CHP – Combined heat & power; DR - demand response; DSM - demand side management; DSR – demand-side resources; EE - energy efficiency; E&G: electric and gas utilities; RPS: Renewable Portfolio Standard

Sources: ACEEE, EPA, Regulatory Assistance Project, Union of Concerned Scientists, State regulatory and legislative sites, trade press