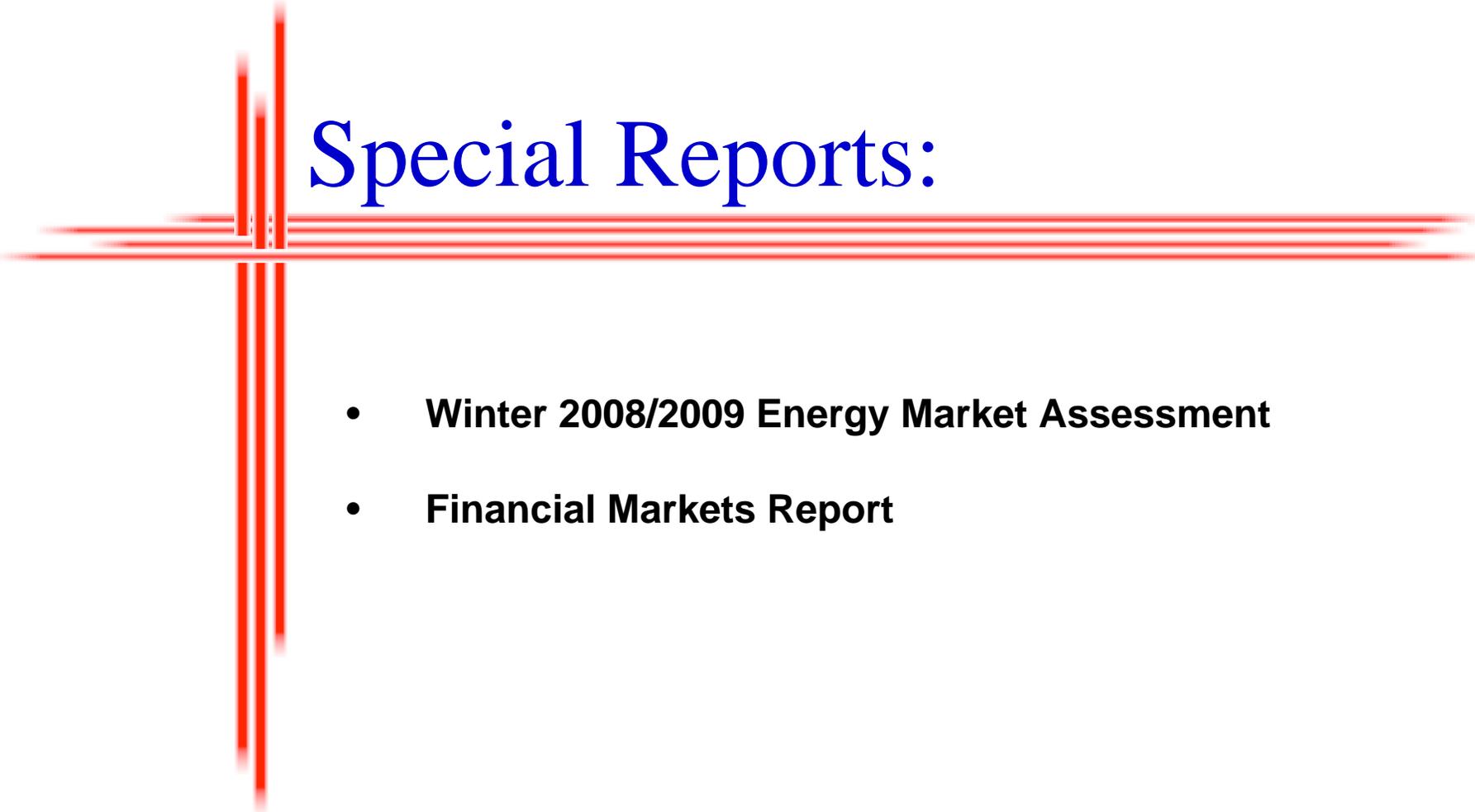


OE ENERGY MARKET SNAPSHOT

Midwest States Version – October 2008 Data

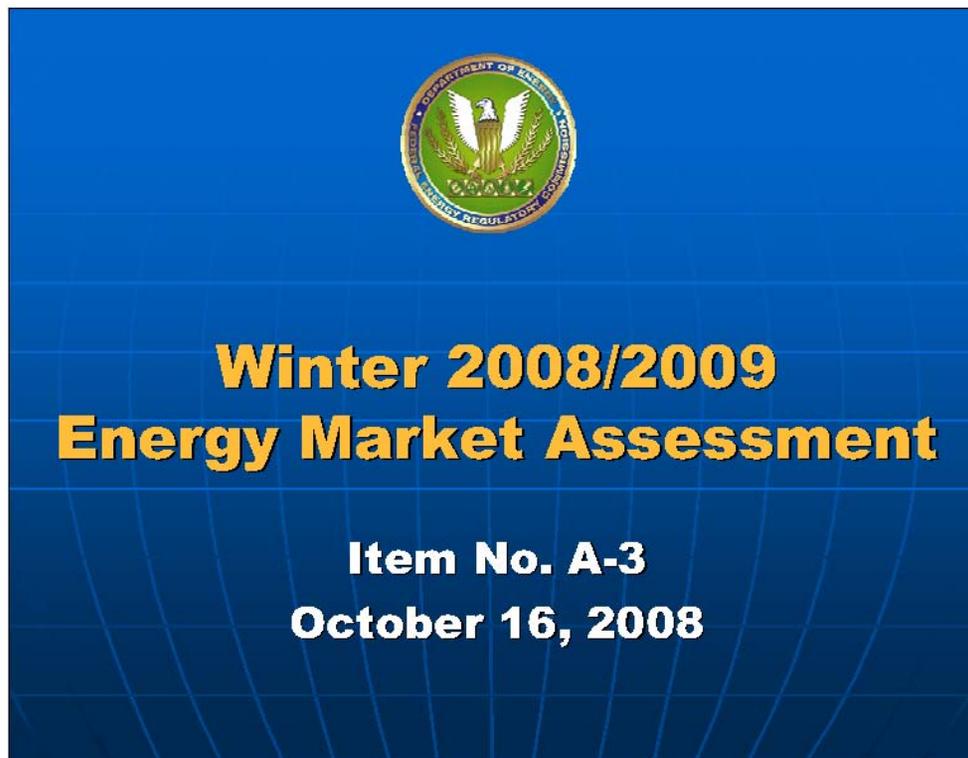
- [Special Reports](#)
- [Electricity Markets](#)
- [Natural Gas and Fuel Markets](#)

Office of Enforcement
Federal Energy Regulatory Commission
November 2008



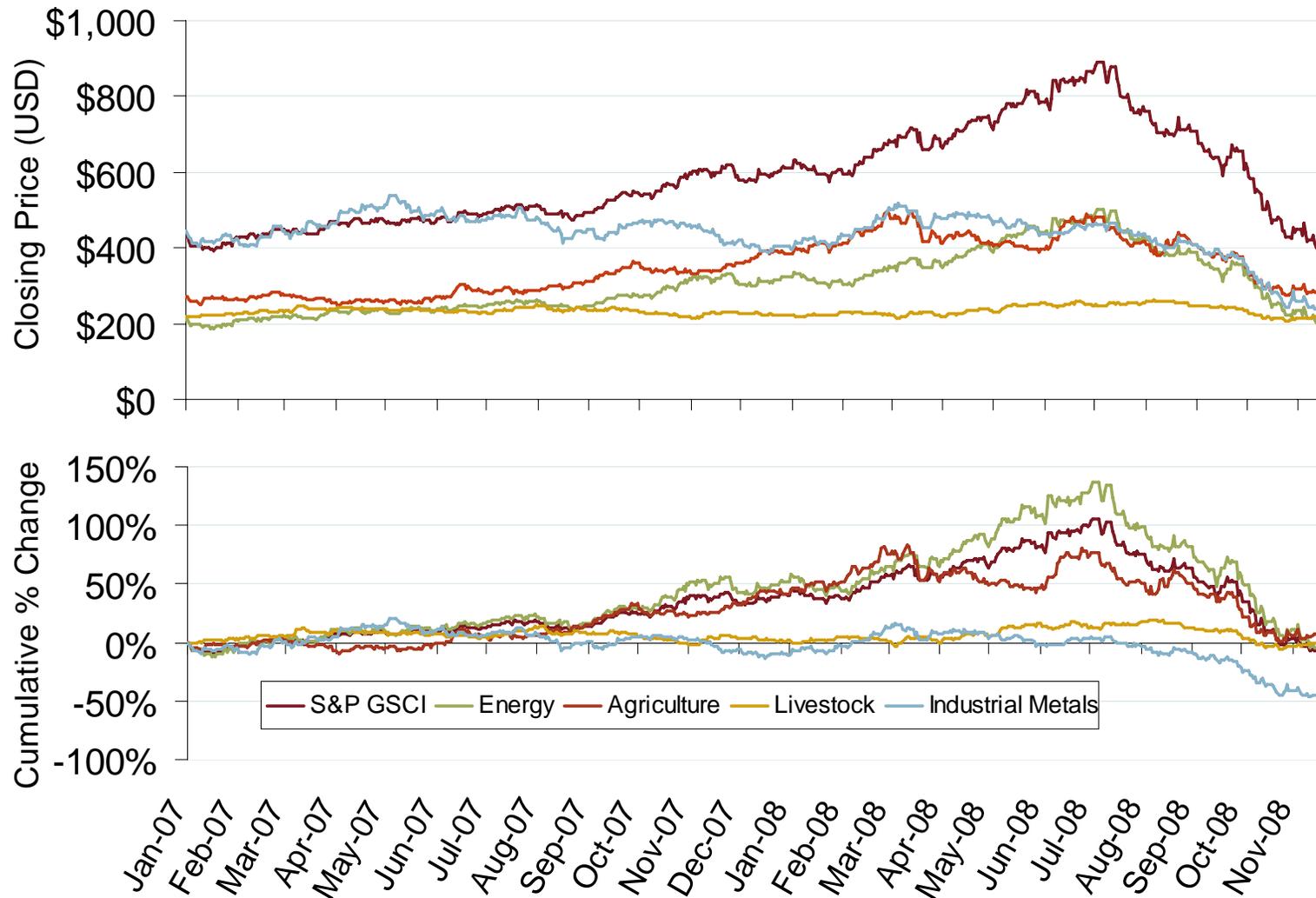
Special Reports:

- **Winter 2008/2009 Energy Market Assessment**
- **Financial Markets Report**

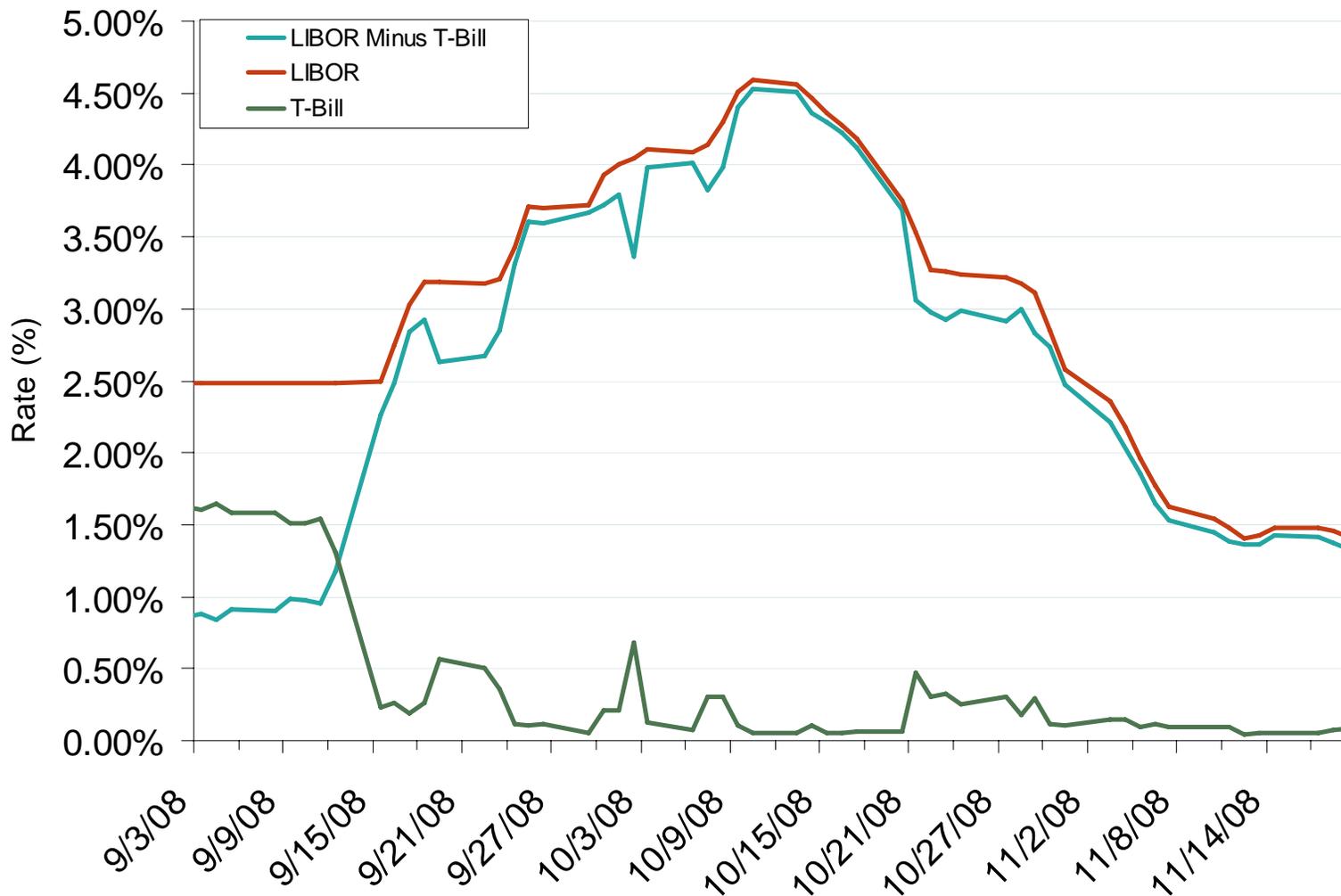


<http://www.ferc.gov/market-oversight/mkt-views/2008/10-16-08.pdf>

S&P Goldman Sachs Commodity Index Official Closing Price

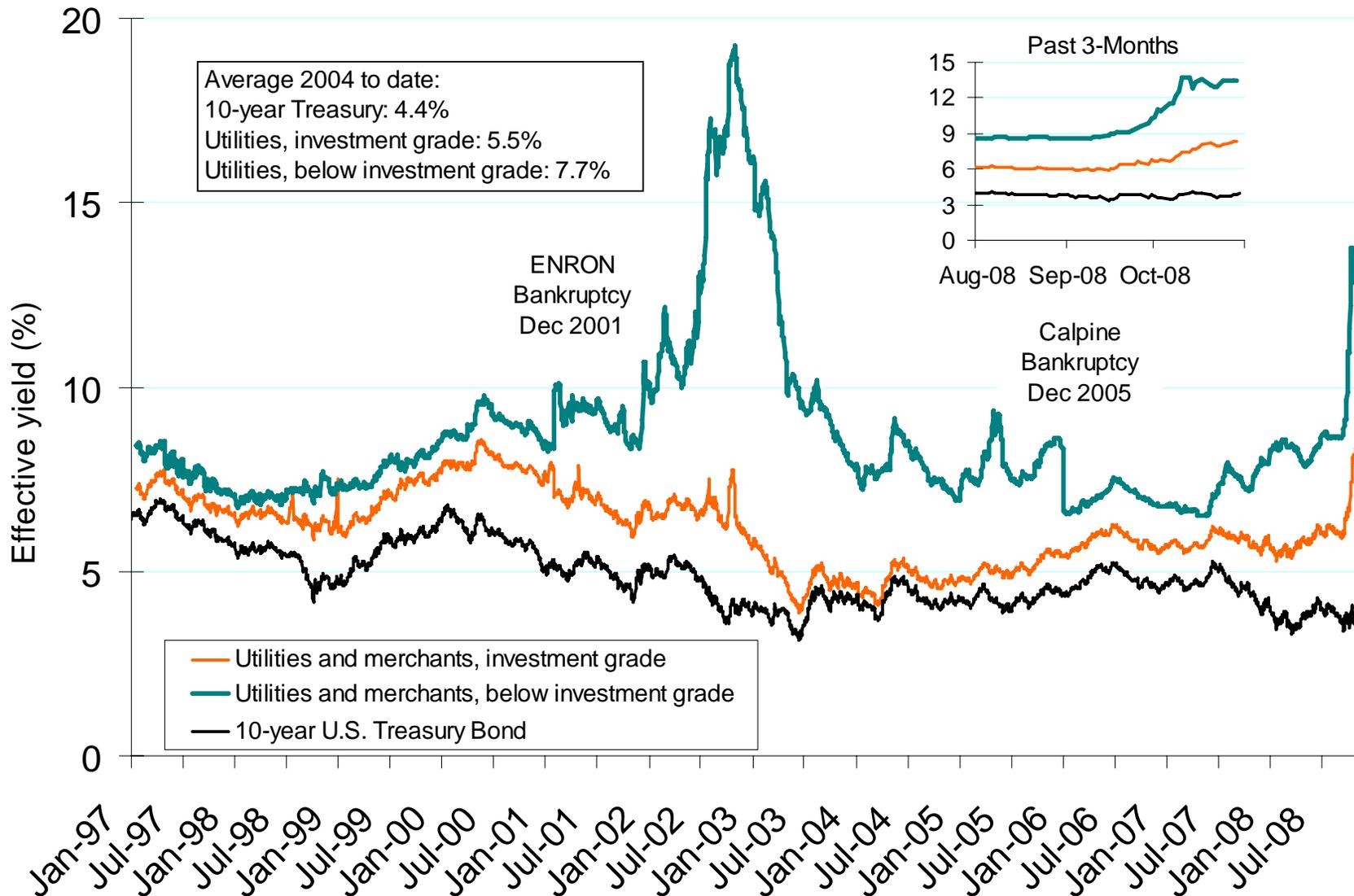


One Month LIBOR and One Month US Treasury Bill Rates



Source: Derived from Bloomberg data.
November 2008 Midwest Snapshot Report

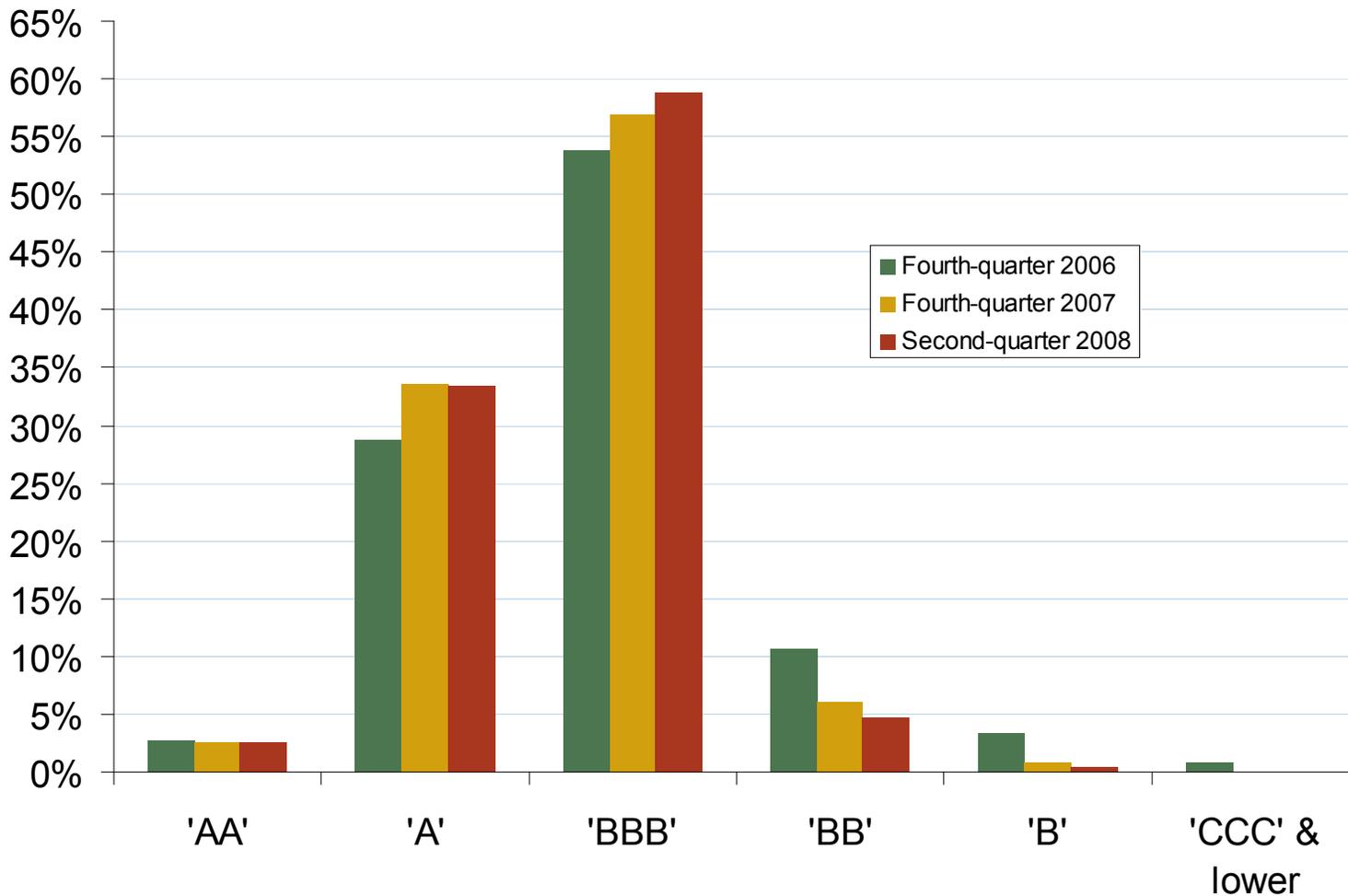
Yields of Utilities, Merchants and Ten Year Treasury Bonds



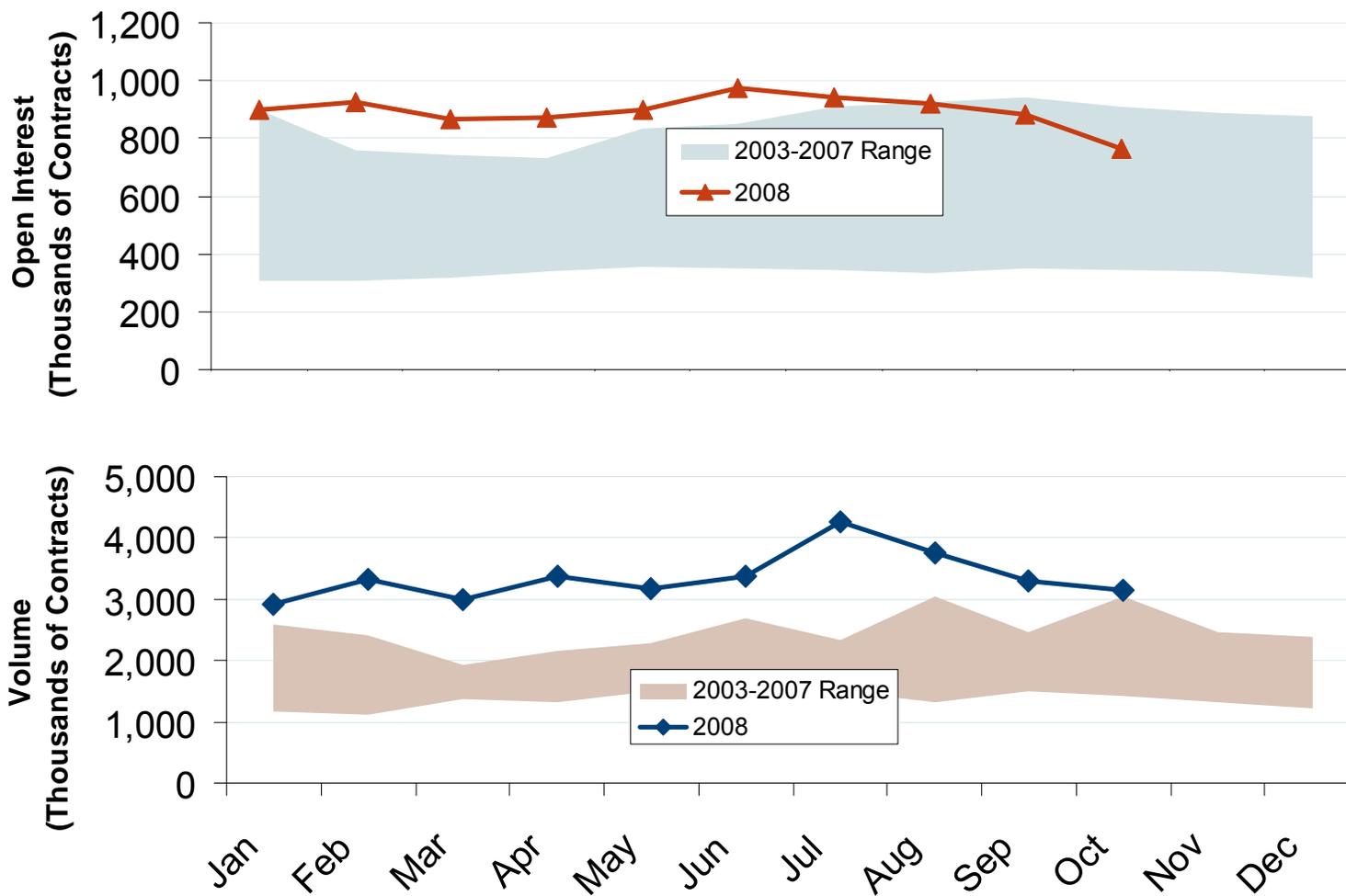
Source: Derived from Merrill Lynch Index U.S Corporates, Gas and Electric Utilities and Bloomberg data.
 November 2008 Midwest Snapshot Report

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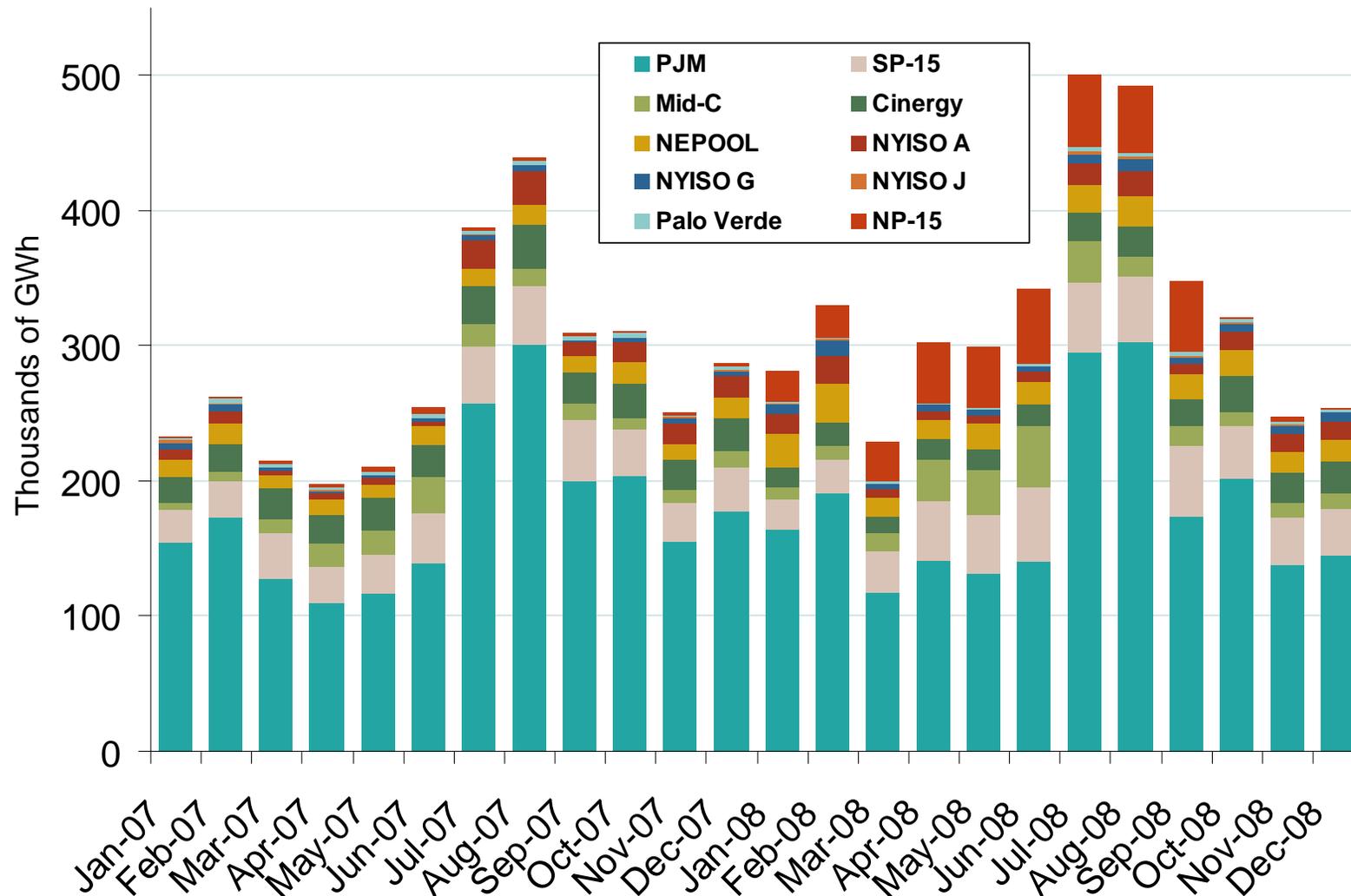
U.S. Electric and Gas Utility Ratings Distribution



NYMEX Natural Gas Futures Month-End Open Interest and Total Monthly Volume

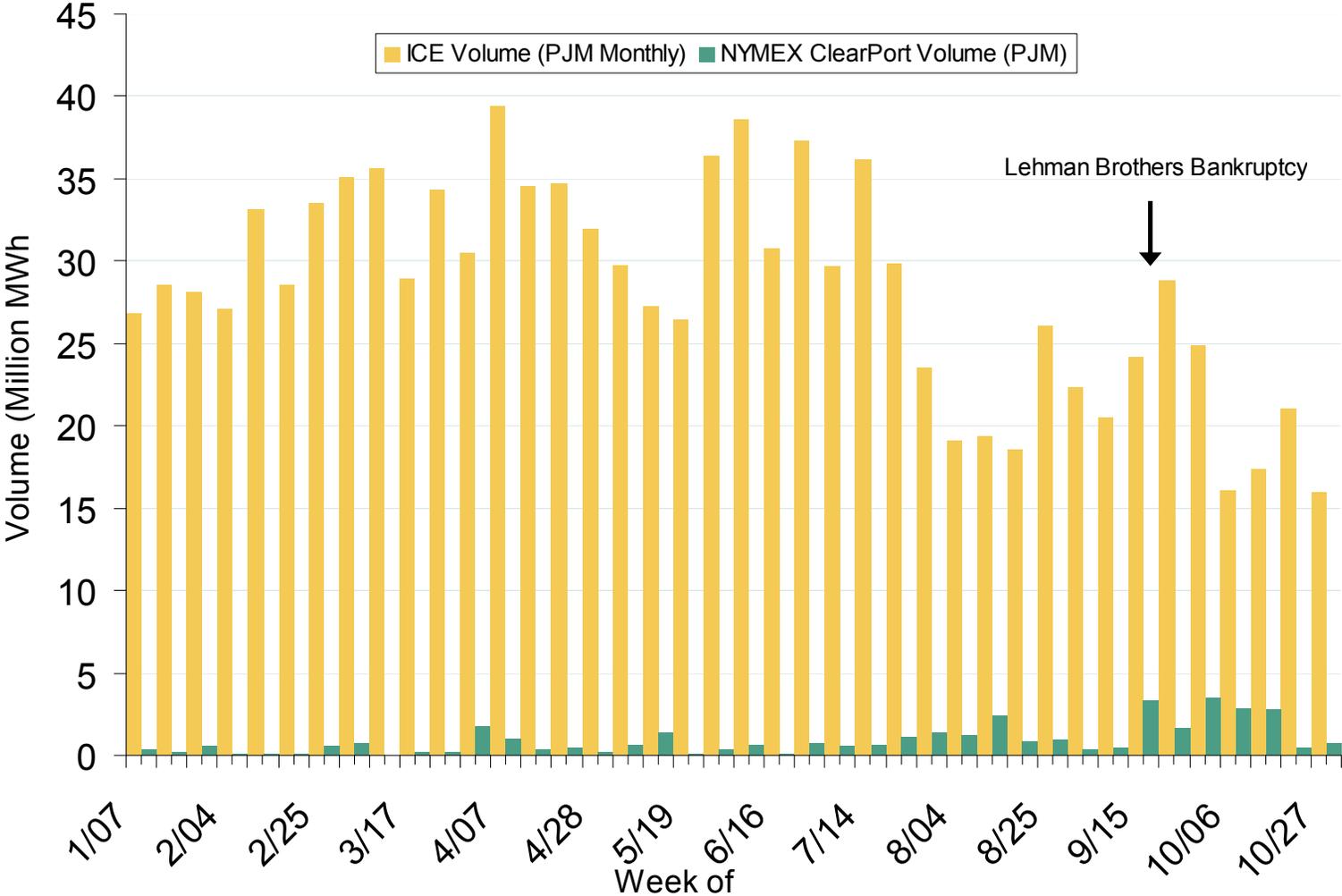


Financial Trading on ICE by Contract Month



Source: Derived from ICE data. ICE on-peak swaps (financial) volume include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.
November 2008 Midwest Snapshot Report

PJM Financial Trading Volumes on ICE and Nymex Monthly Contracts by Trade Week

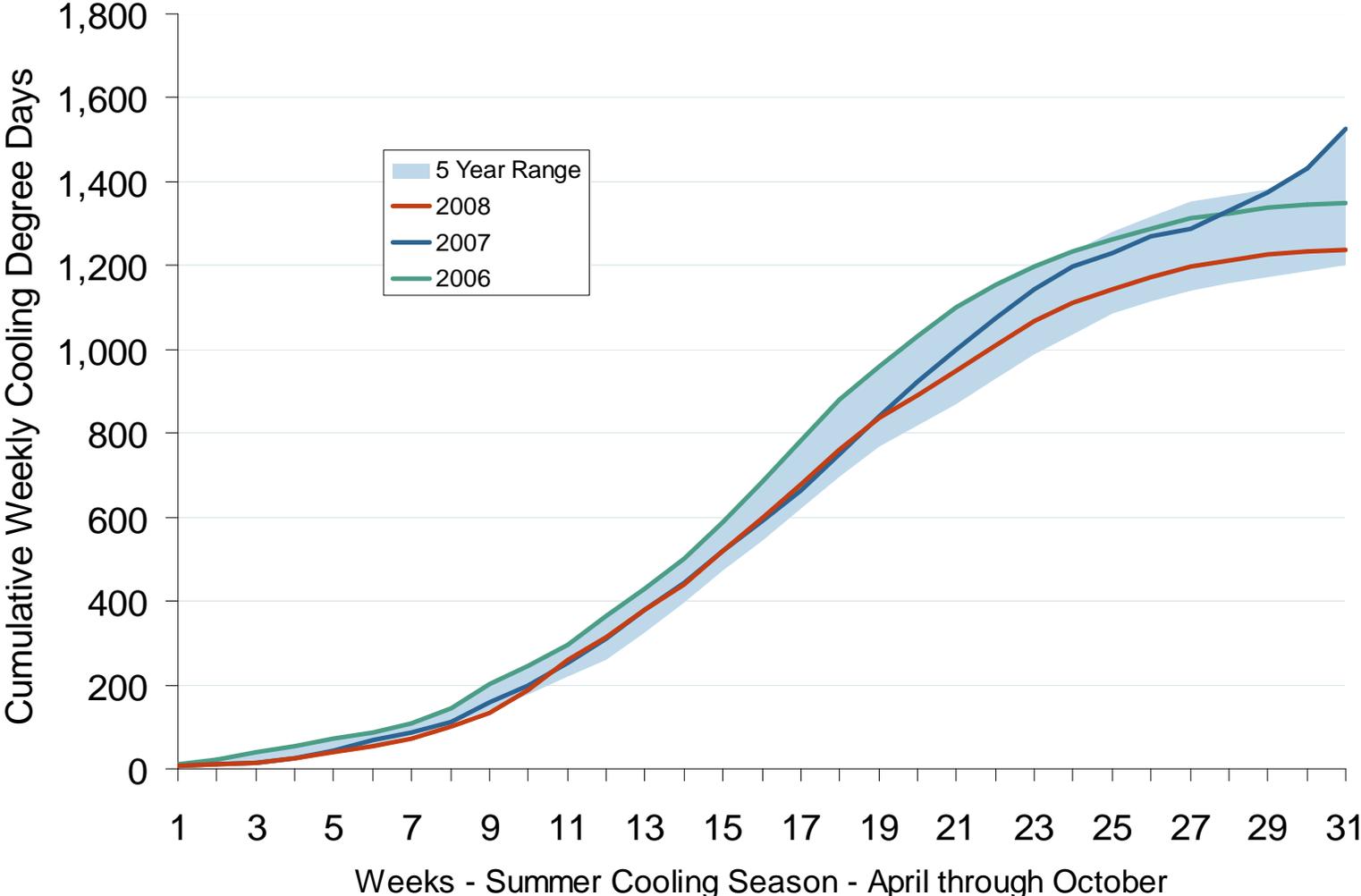


Source: Derived from ICE and NYMEX ClearPort data. Volumes are Weekly Totals of Month Long Term Products Only, Excluding Holiday Weeks and Off-Peak Hour Deliveries.
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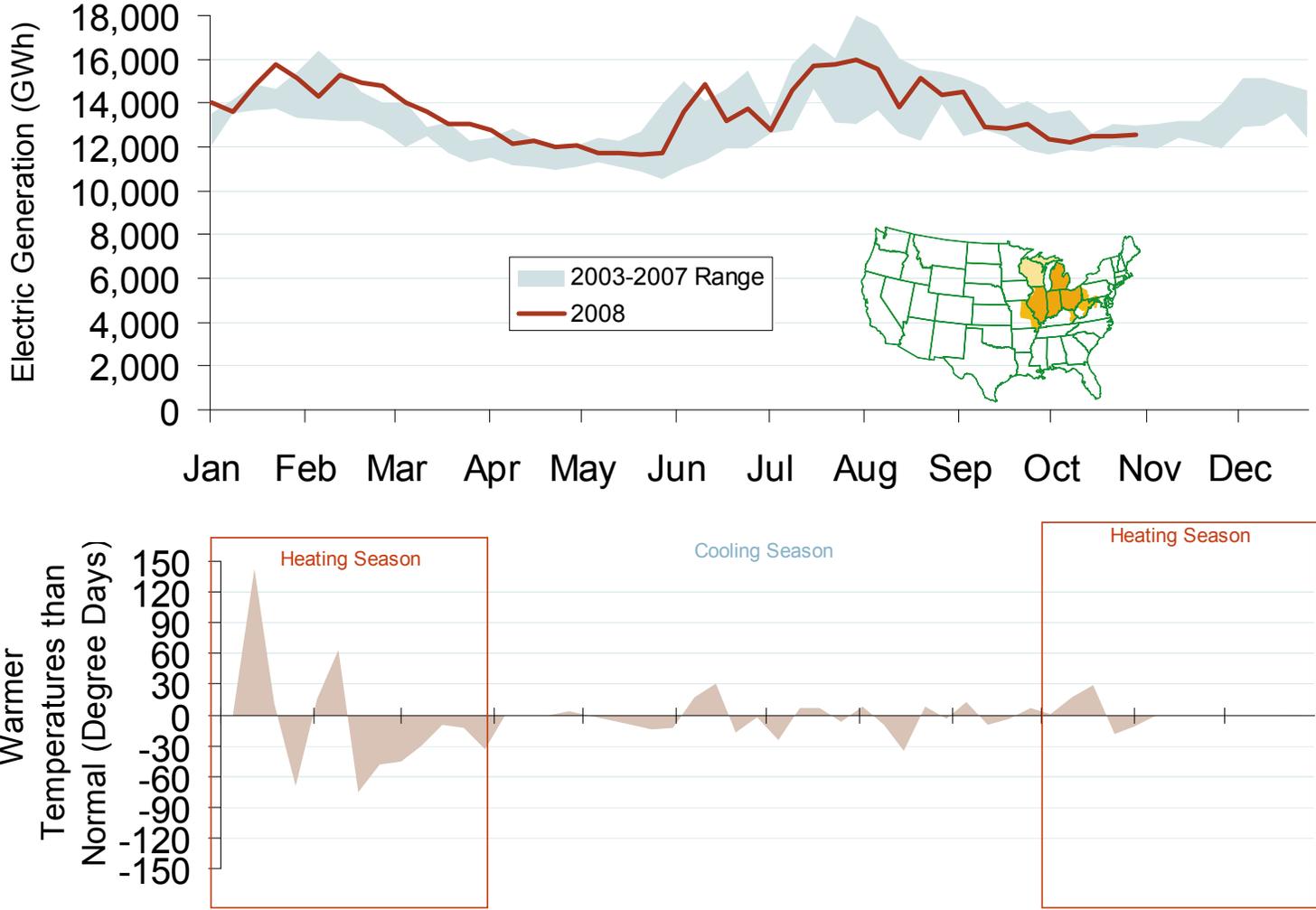
Electricity Markets

U. S. Summer Cumulative Cooling Degree Days



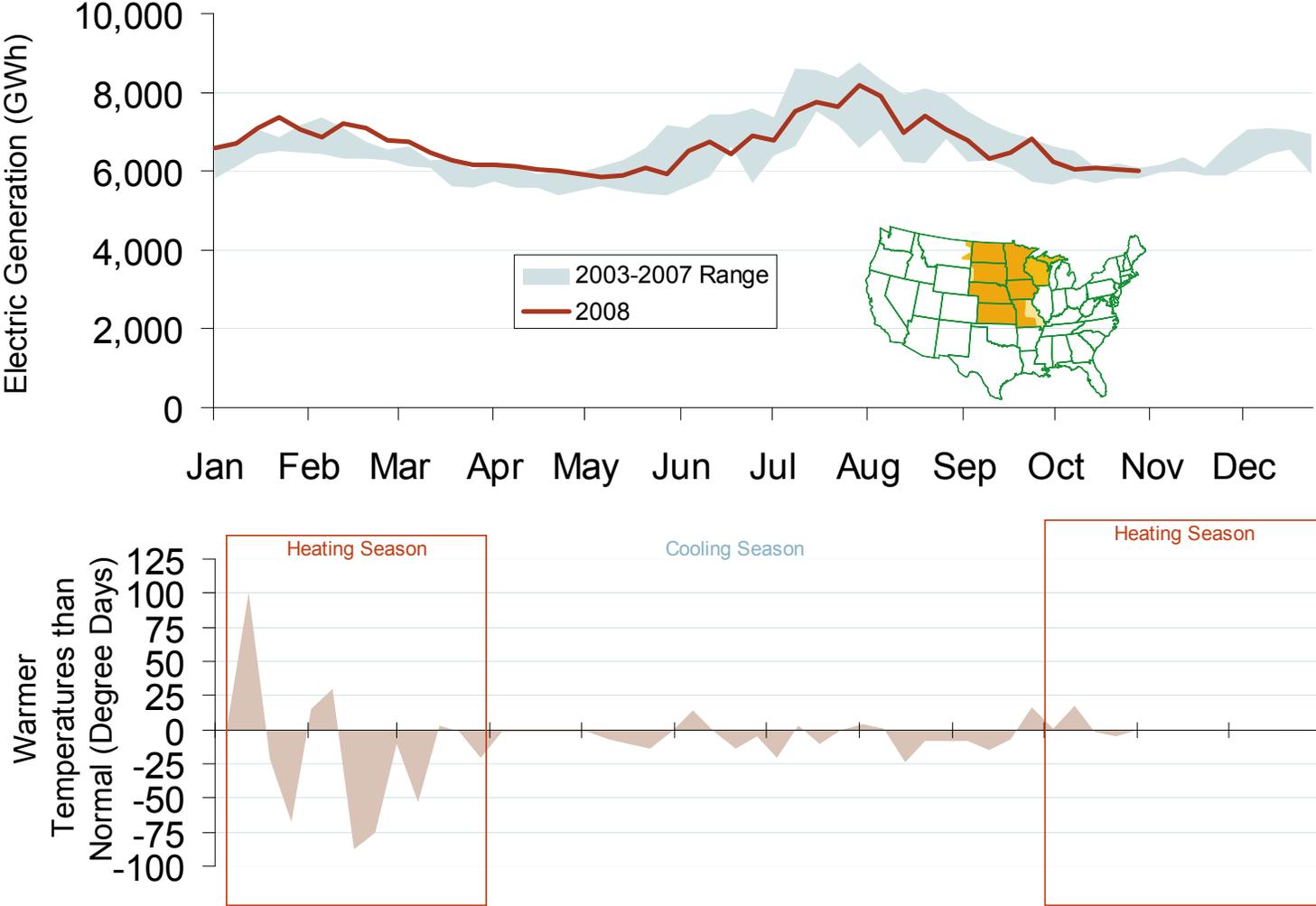
Source: Derived from NOAA data.

Weekly Electric Generation Output and Temperatures Central Industrial Region



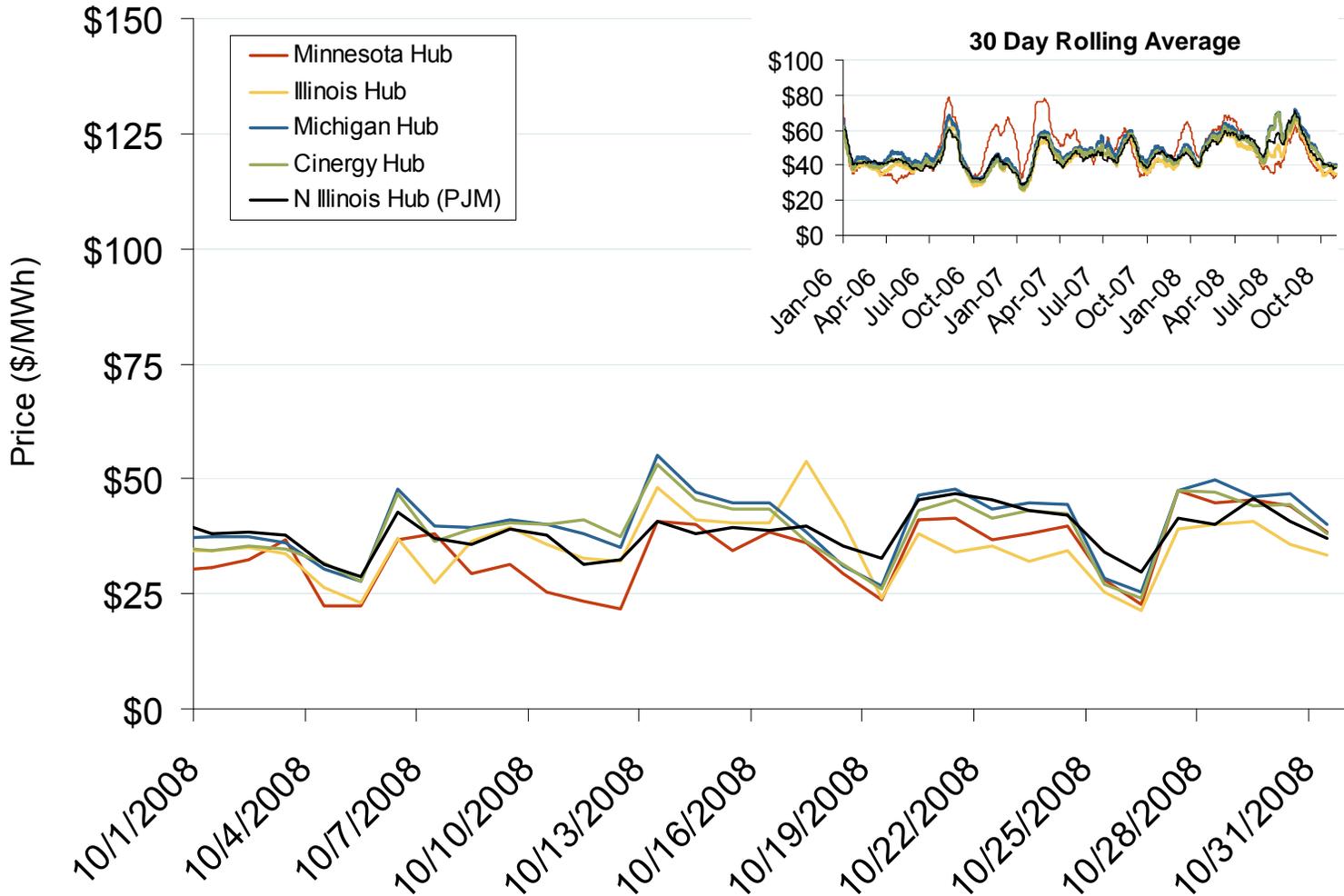
Source: Derived from *EI* and *NOAA* data.
November 2008 Midwest Snapshot Report

Weekly Electric Generation Output and Temperatures West Central Region



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

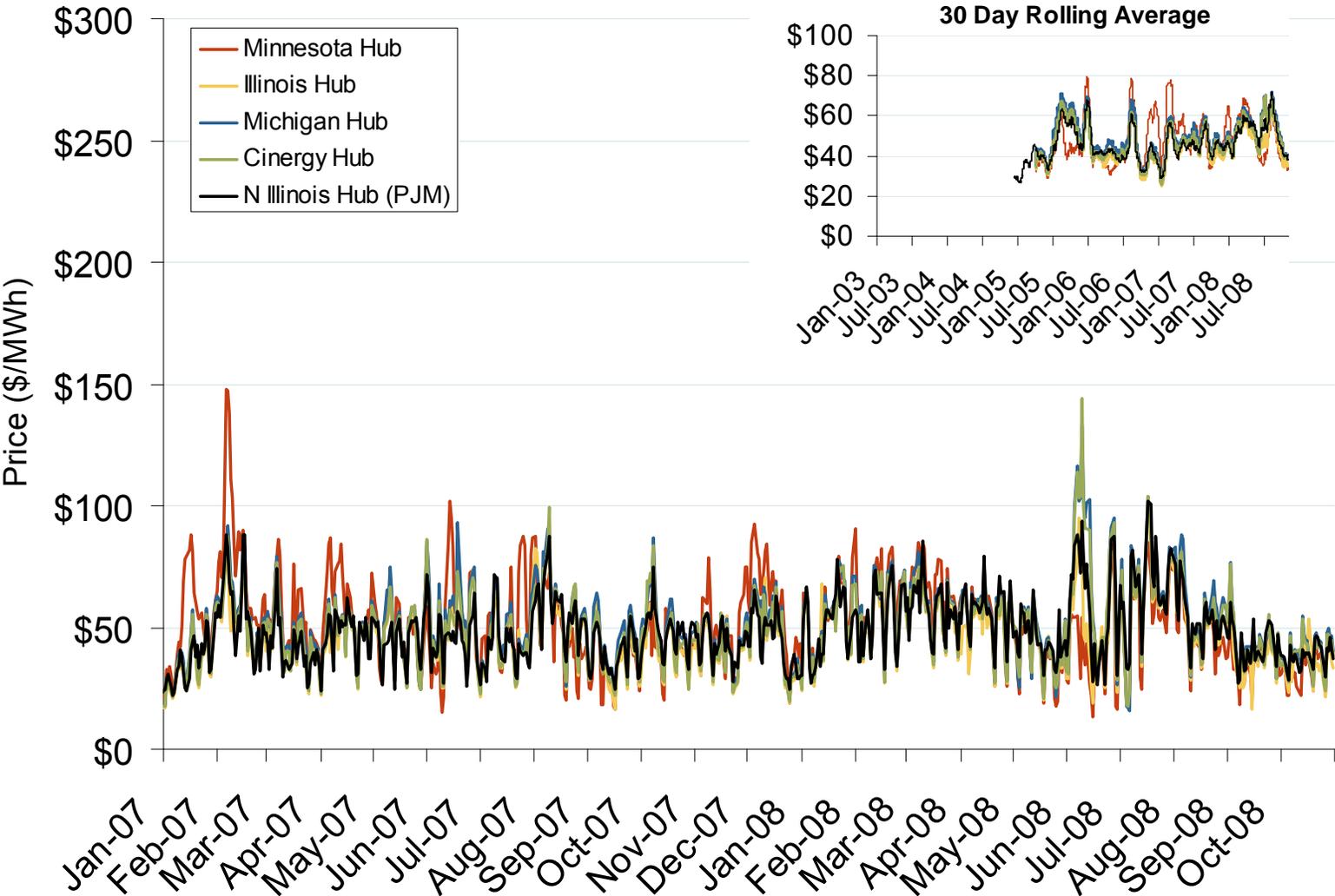
Daily Average of MISO Day-Ahead Prices - All Hours



Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg. November 2008 Midwest Snapshot Report

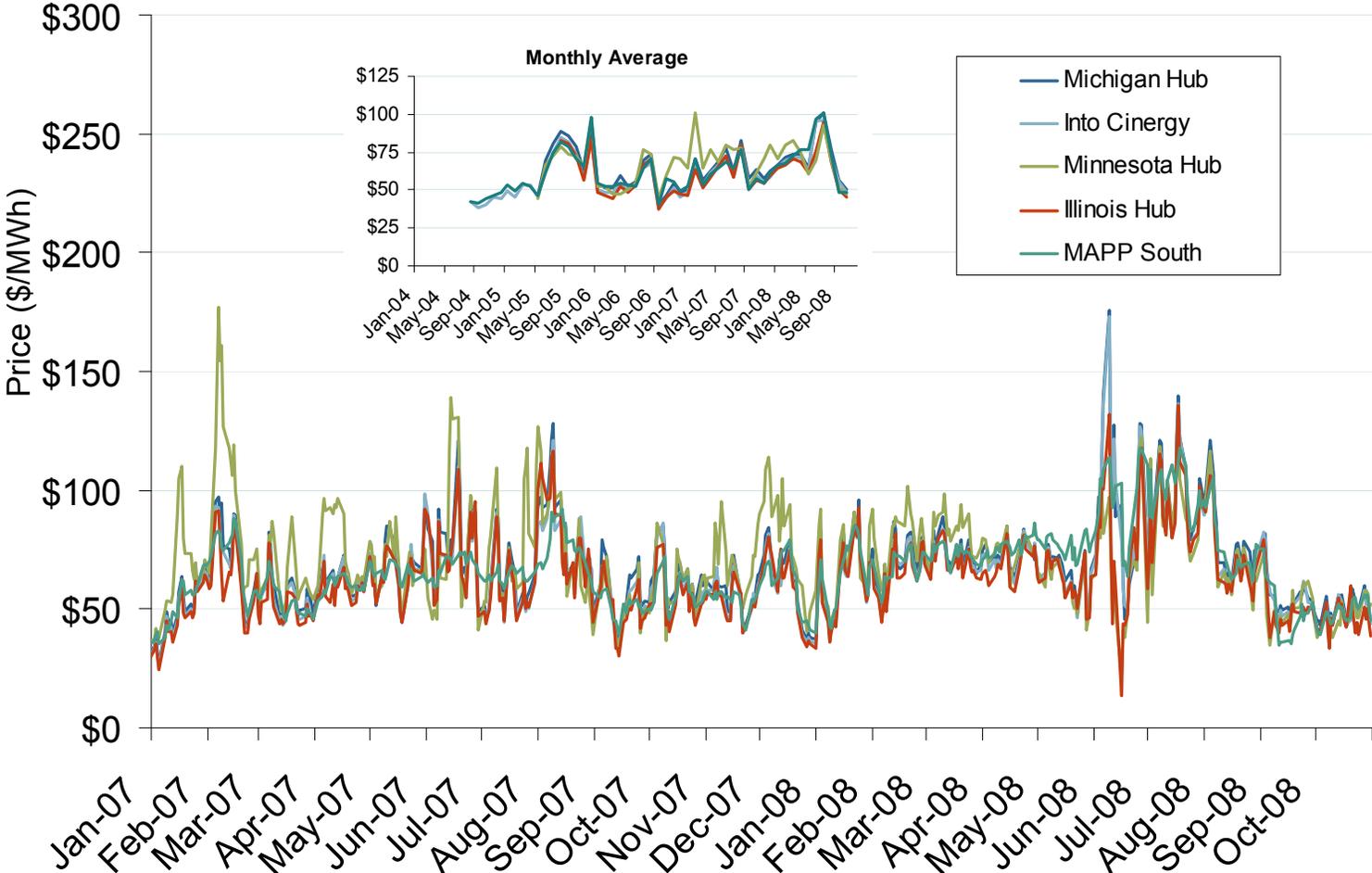
Updated November 7, 2008

Daily Average of MISO Day-Ahead Prices - All Hours



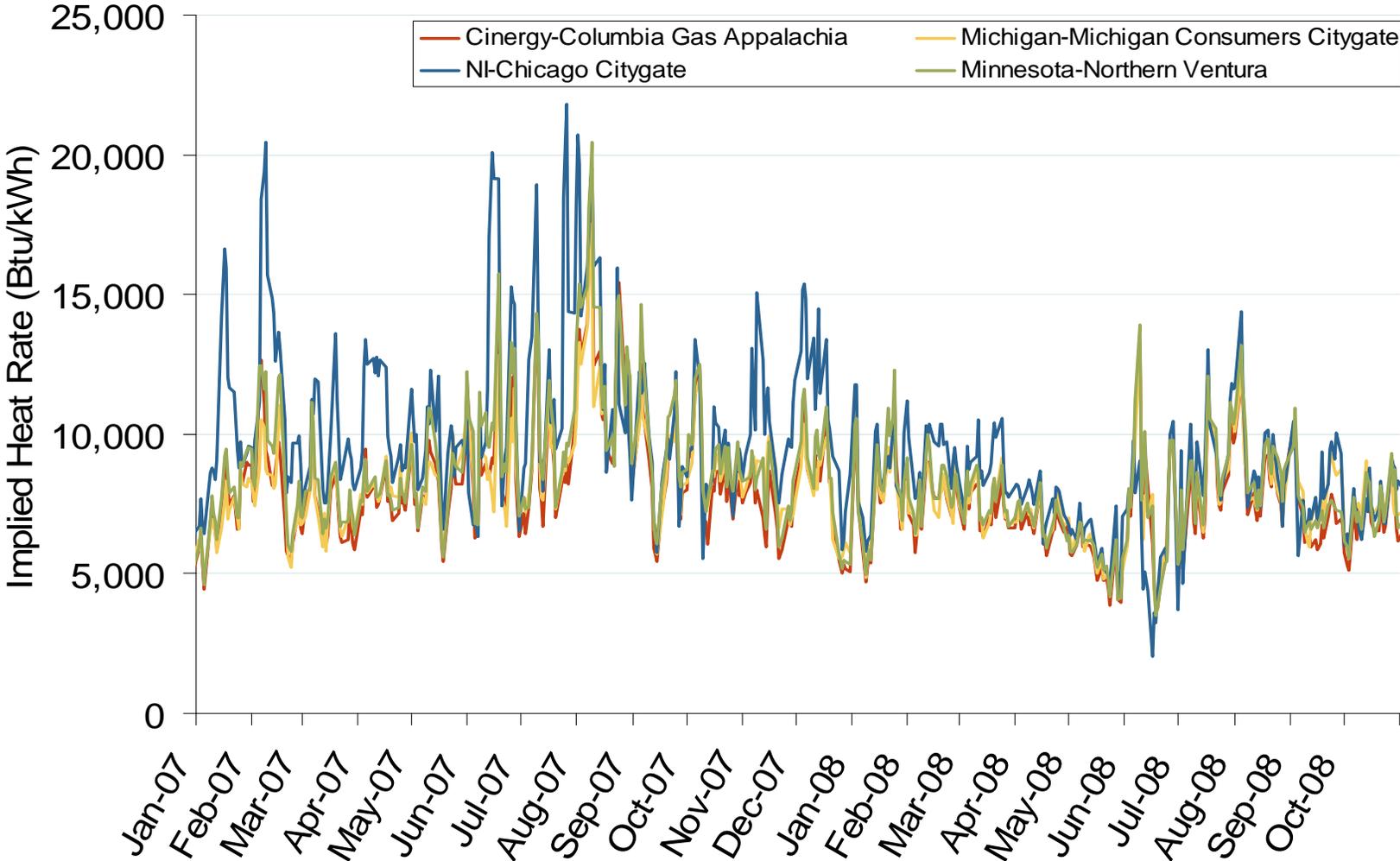
Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.
November 2008 Midwest Snapshot Report

MISO Hub Bilateral Day-Ahead On-Peak Prices



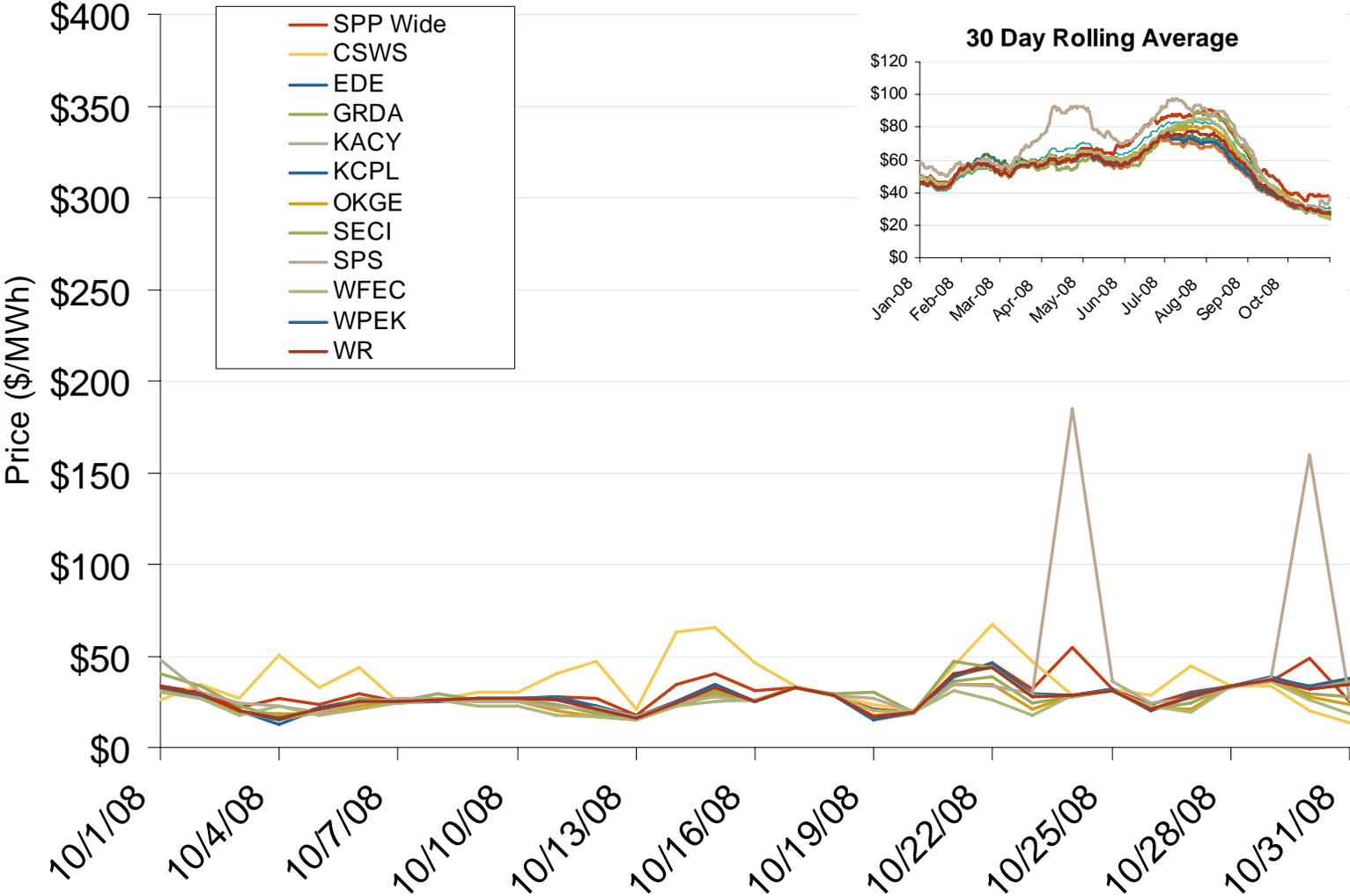
Source: Derived from *Platts* data.
November 2008 Midwest Snapshot Report

Implied Heat Rates at MISO Hubs



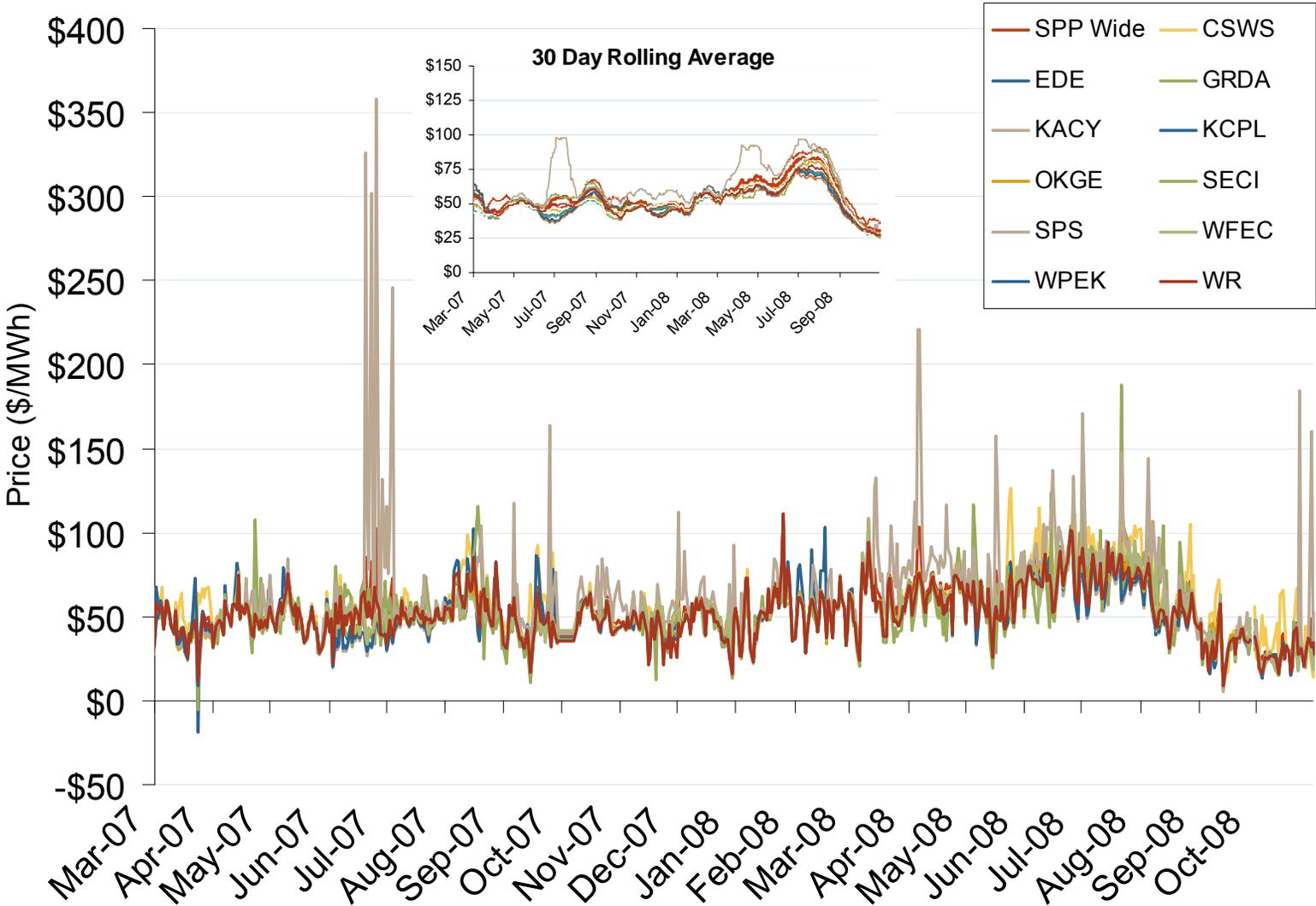
Source: Derived from *Platts* data
November 2008 Midwest Snapshot Report

Daily Average of SPP Real Time Prices - All Hours



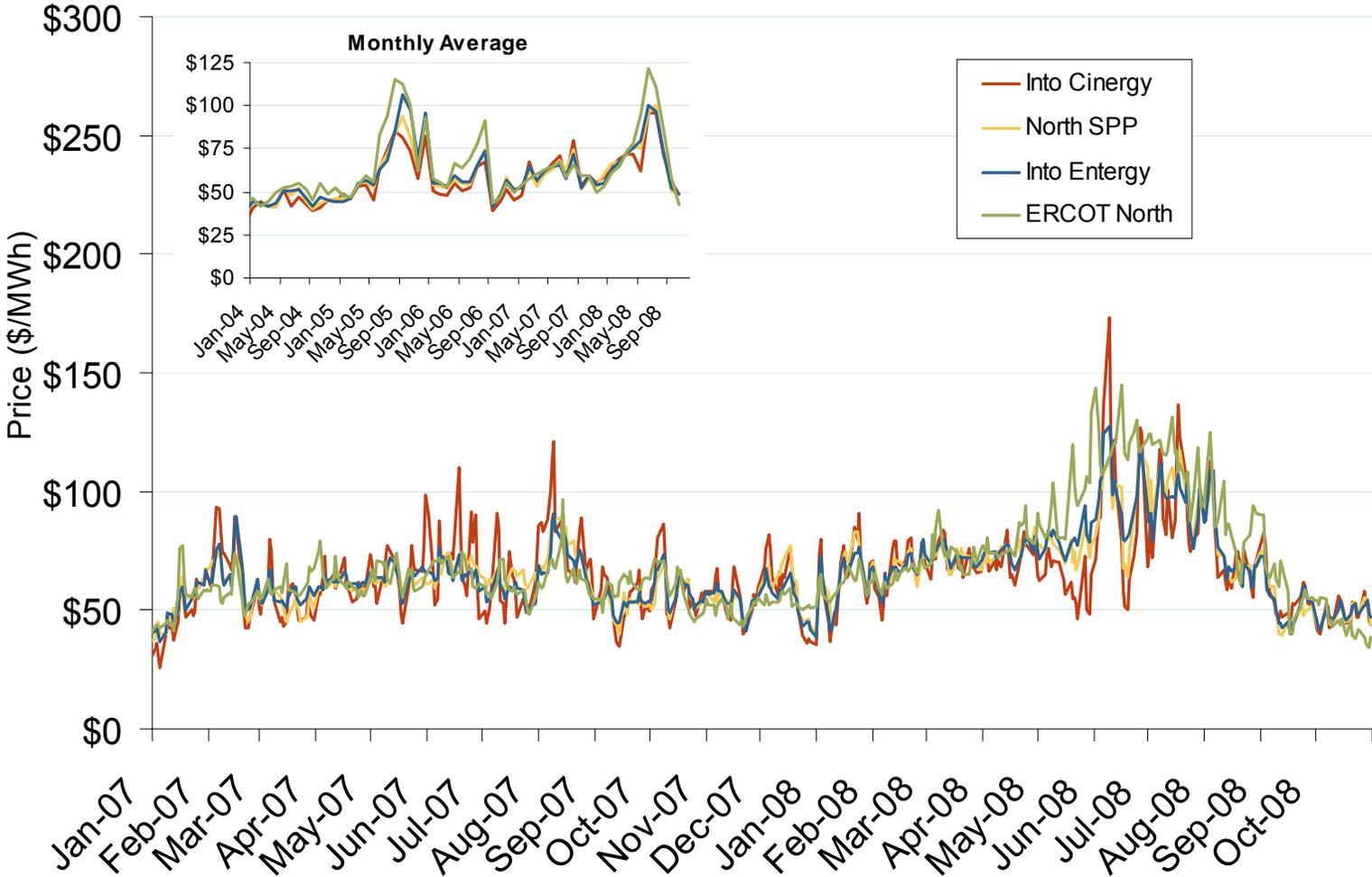
Source: Derived from SPP data.
November 2008 Midwest Snapshot Report

Daily Average of SPP Real Time Prices - All Hours



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

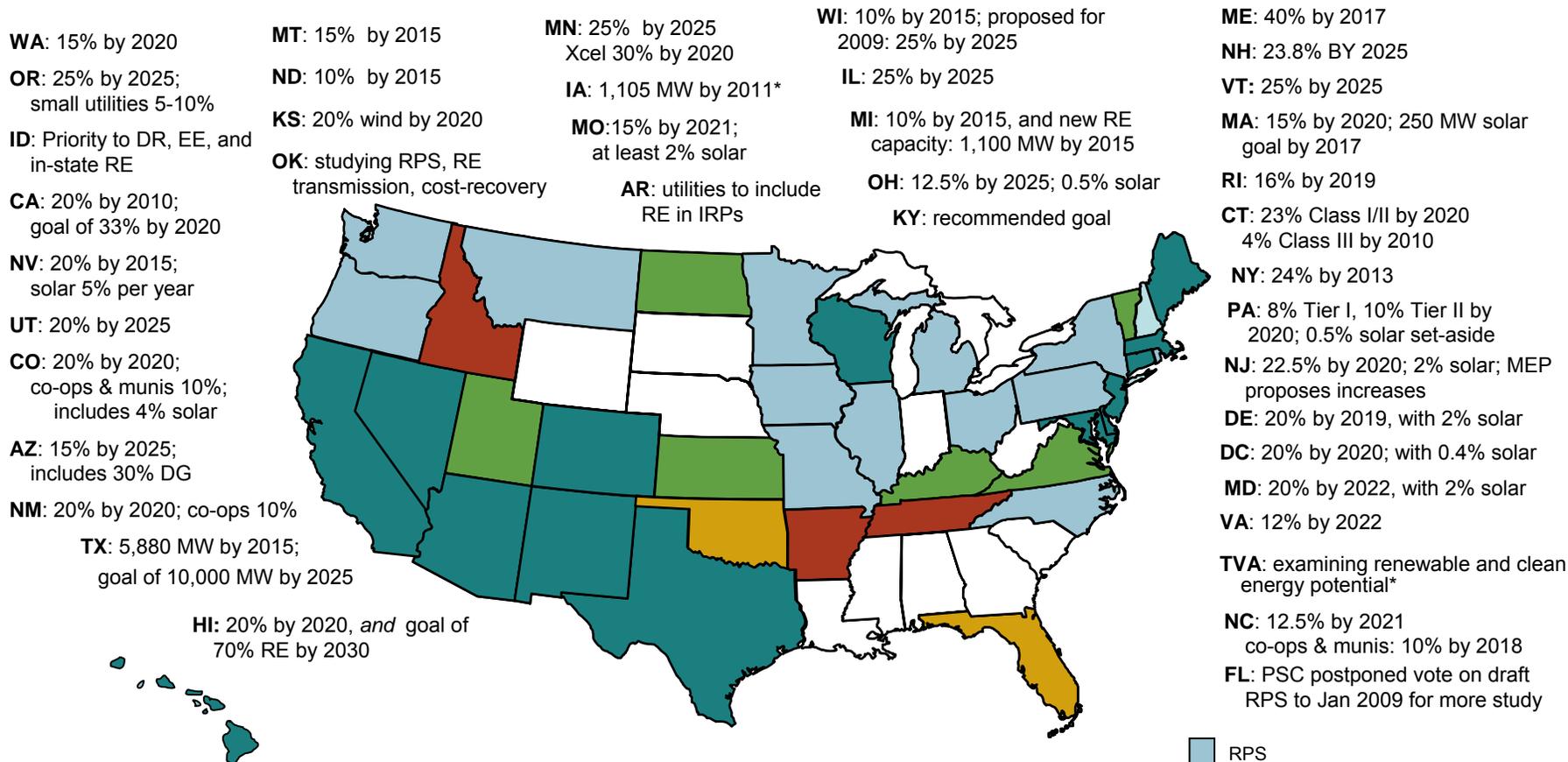
Central Daily Bilateral Day-Ahead On-Peak Prices



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

Renewable Energy Portfolio Standards (RPS)

28 states plus D.C. have an RPS



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

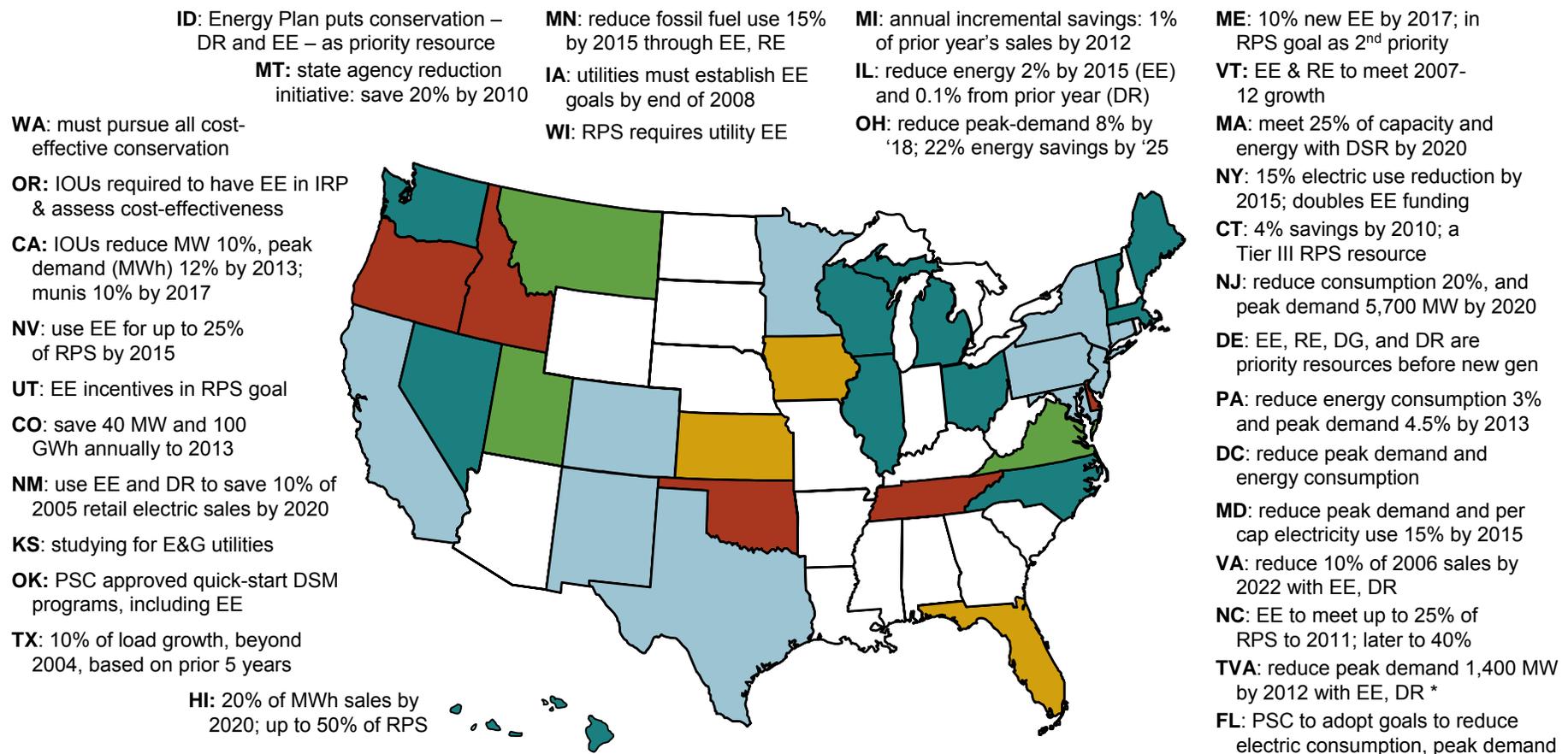
Notes: Alaska has no RPS; * Iowa has a goal of 1,000 MW of wind by 2010; TVA's "Renewable Energy and Clean Energy Assessment" is from the Public Power Authority; it is not a state policy.

Abbreviations: DG: distributed generation; DR: demand response; EE: energy efficiency; IRP: integrated resource plan.

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.

Updated November 7, 2008

Energy Efficiency Resource Standards (EERS)



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

* TVA's "EE and DR Plan" is from the Public Power Authority, and is not a state policy.

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

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

- EERS by regulation or law (stand-alone)
- Energy efficiency part of an RPS law, rule, or goal
- Voluntary standards (in or out of RPS)
- Energy efficiency goal proposed / being studied
- Other energy efficiency or demand-side rule or goal

Updated November 7, 2008

Collaborative Greenhouse Gas (GHG) Programs

Collaborative Regional GHG Programs:

- Three North American groups with goals to lower regional GHG emissions were initiated by state Governors.
- 32 U.S. states, D.C., eight Canadian provinces, and six Mexican states are Participants or Observers.
- Observer jurisdictions do not commit to group GHG reduction goals, but participate in proceedings should they opt to join later.

Western Climate Initiative (WCI):

- Created February 2007
- Partners: 7 states, 4 provinces; Observers: 5 states, 1 province*
- WCI announced its design for a market-based, *multi-sector* cap-and-trade program, Sept 2008:
 - 15% CO₂ reduction below 2005 levels by 2020
 - Phase I to take effect Jan 2012

Midwest Greenhouse Gas Reduction Accord:

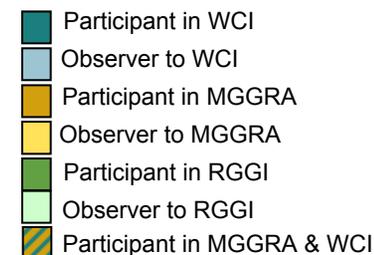
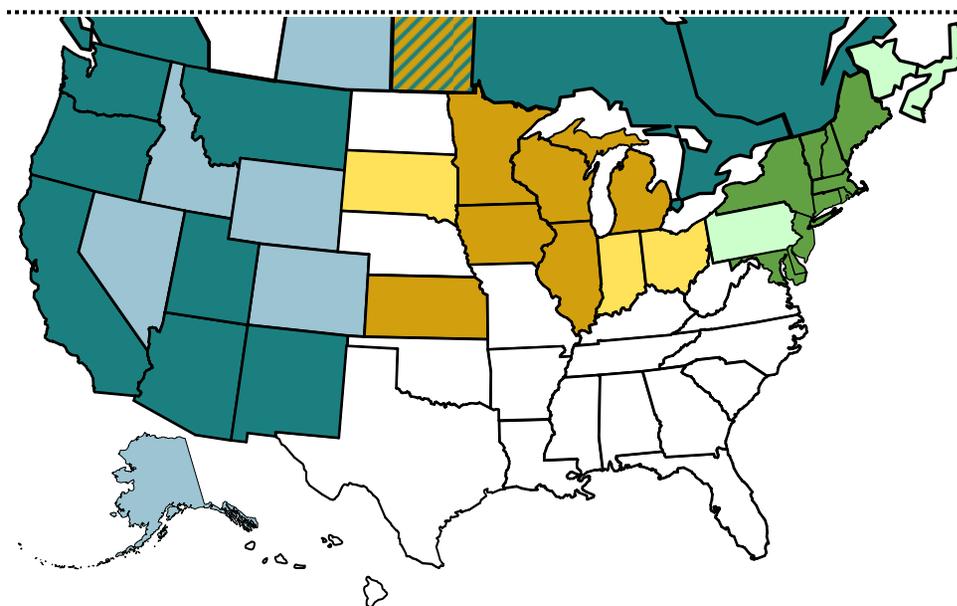
- Established November 2007
- Participants: 6 states, 1 province; 3 Observer states, 1 province
- *Preliminary* GHG policy recommendation: 15 – 25% reductions by 2020, 60 – 80% by 2050

Regional Greenhouse Gas Initiative (RGGI):

- Takes effect Jan 2009
- 10 Participant states; Observers: 1 state, D.C., 3 provinces.
- Market-based cap-and-trade effort to reduce *power-sector* CO₂ emissions.
- 10% CO₂ reduction by 2018 covers over 200 plants
- 188 million allowances to be sold in 6 auctions

Auctions:

- 1. 9/25/08:** 12.5 million allowances cleared at \$3.07/allowance, raising \$38.5 million.
 - 6 states participated: CT, MA, ME, MD, RI, VT; these 6 will offer 1/6 of allowances at next 5 auctions
- 2. 12/17/08:** first 6 states plus NY, NJ, NH, DE to participate
 - 31.5 million allowances
- 3 to 6:** All ten states on same percent basis as prior auctions.
 - 2009 dates: 3/18, 6/17, 9/16, 12/16



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

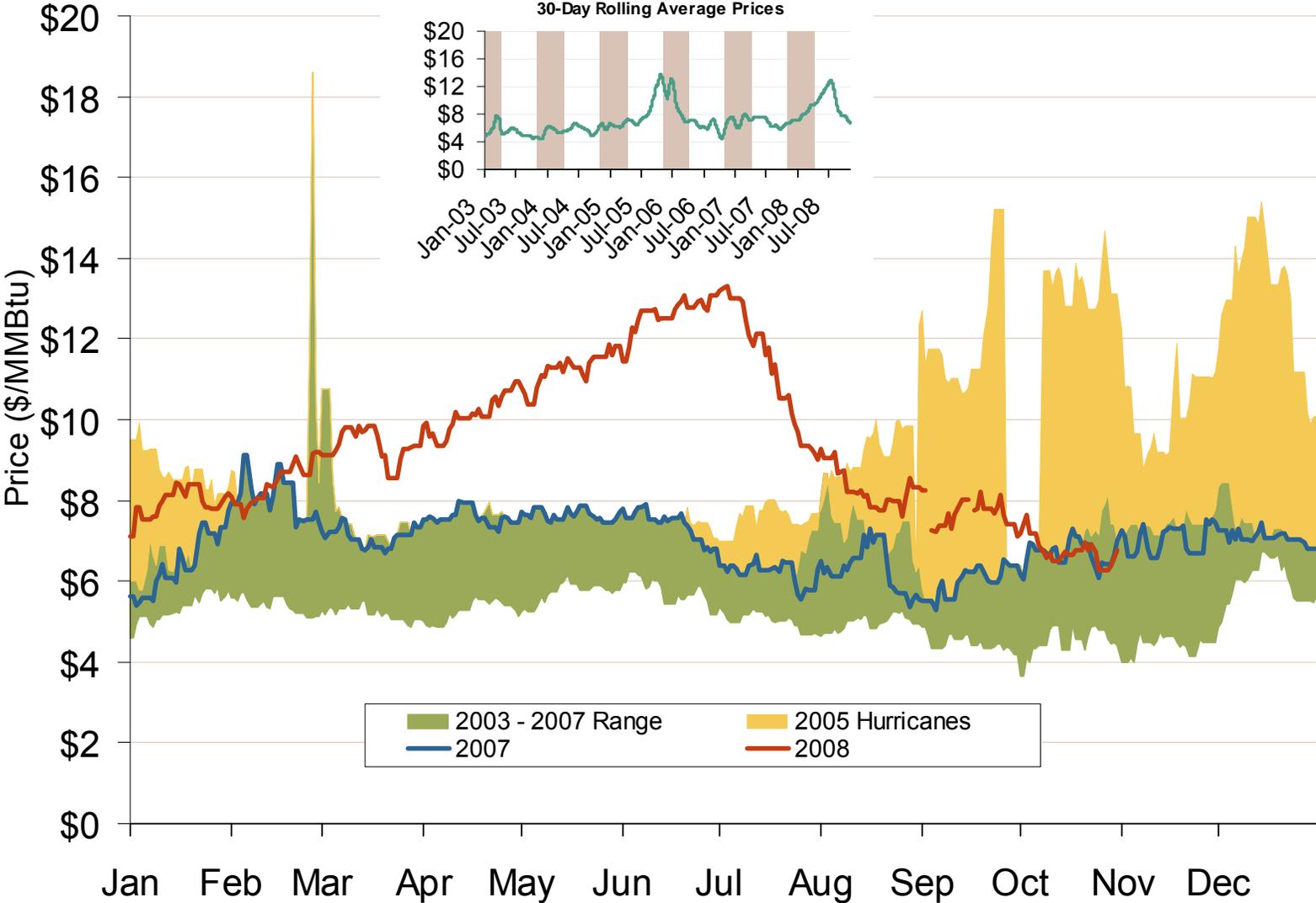
Notes: Kansas is a MGGRA participant and WCI observer. Ontario is a Partner to WCI and MGGRA Observer.
Sources: Regional initiatives: www.rggi.org, www.midwesternaccord.org, www.westernclimateinitiative.org, trade press, Pew Center.



Natural Gas and Fuel Markets

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

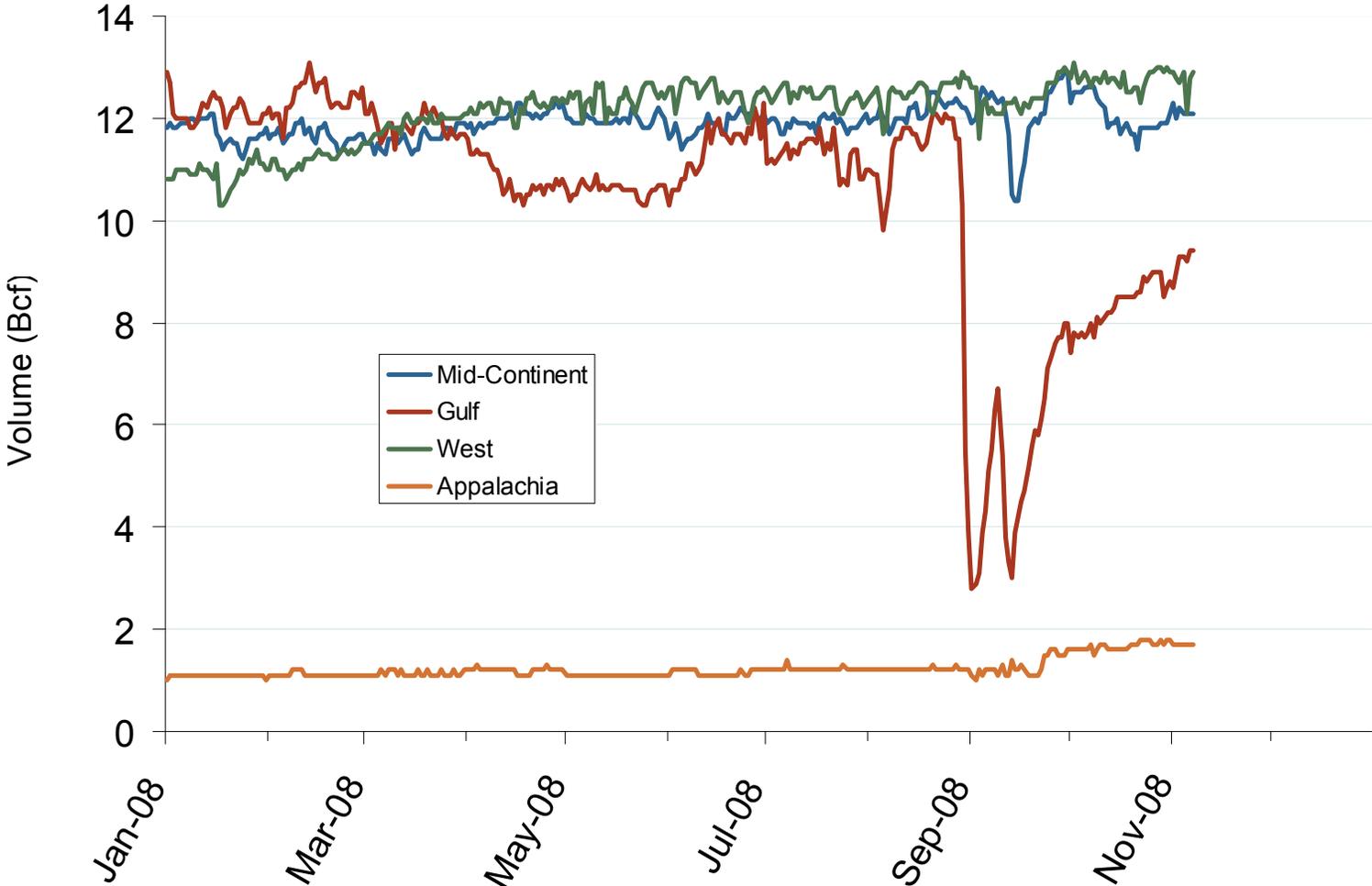
Henry Hub Natural Gas Daily Spot Prices 2007, 2008 and 2003-2007 Year Range



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

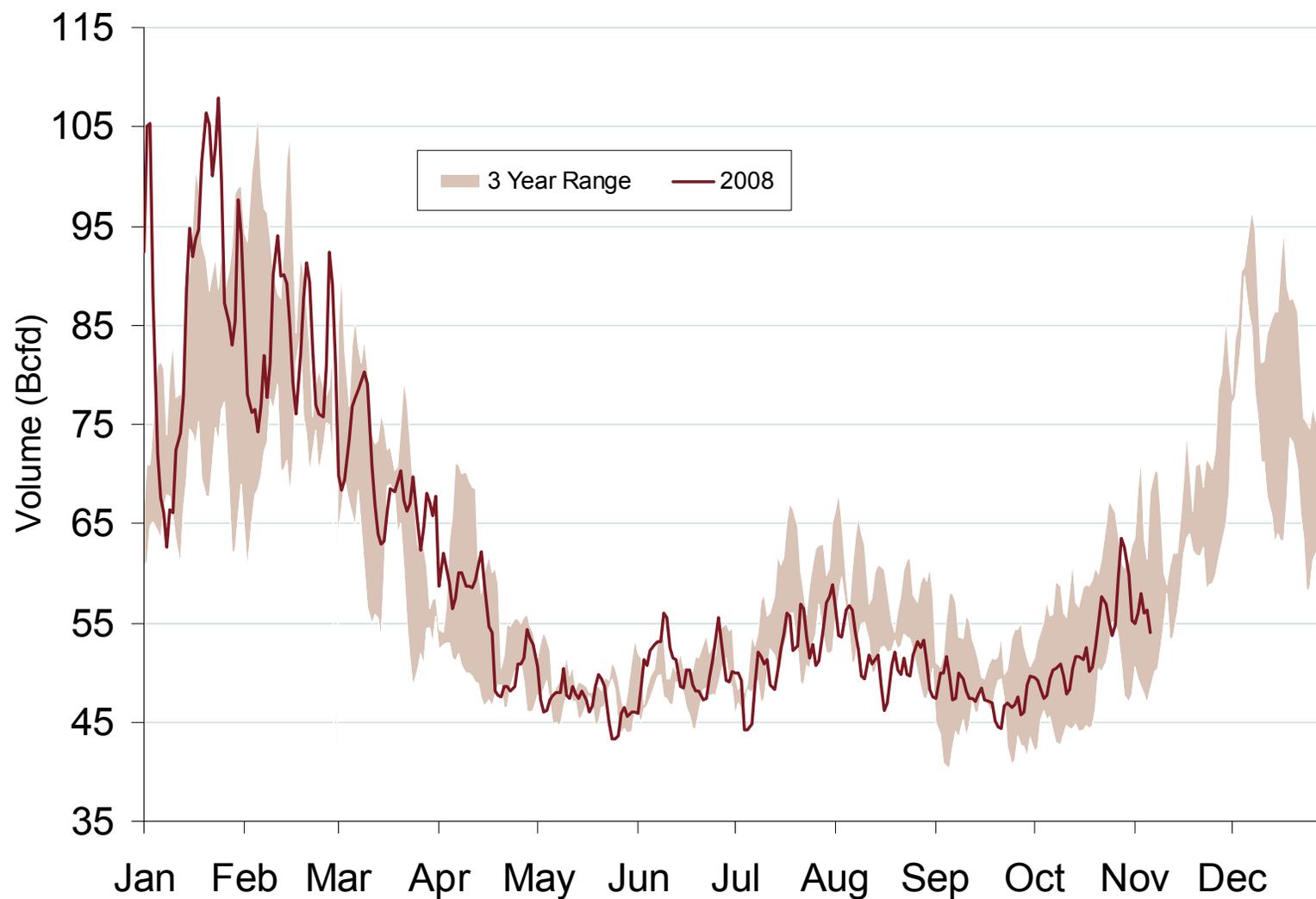
Updated November 7, 2008

Regional Natural Gas Production for 2008

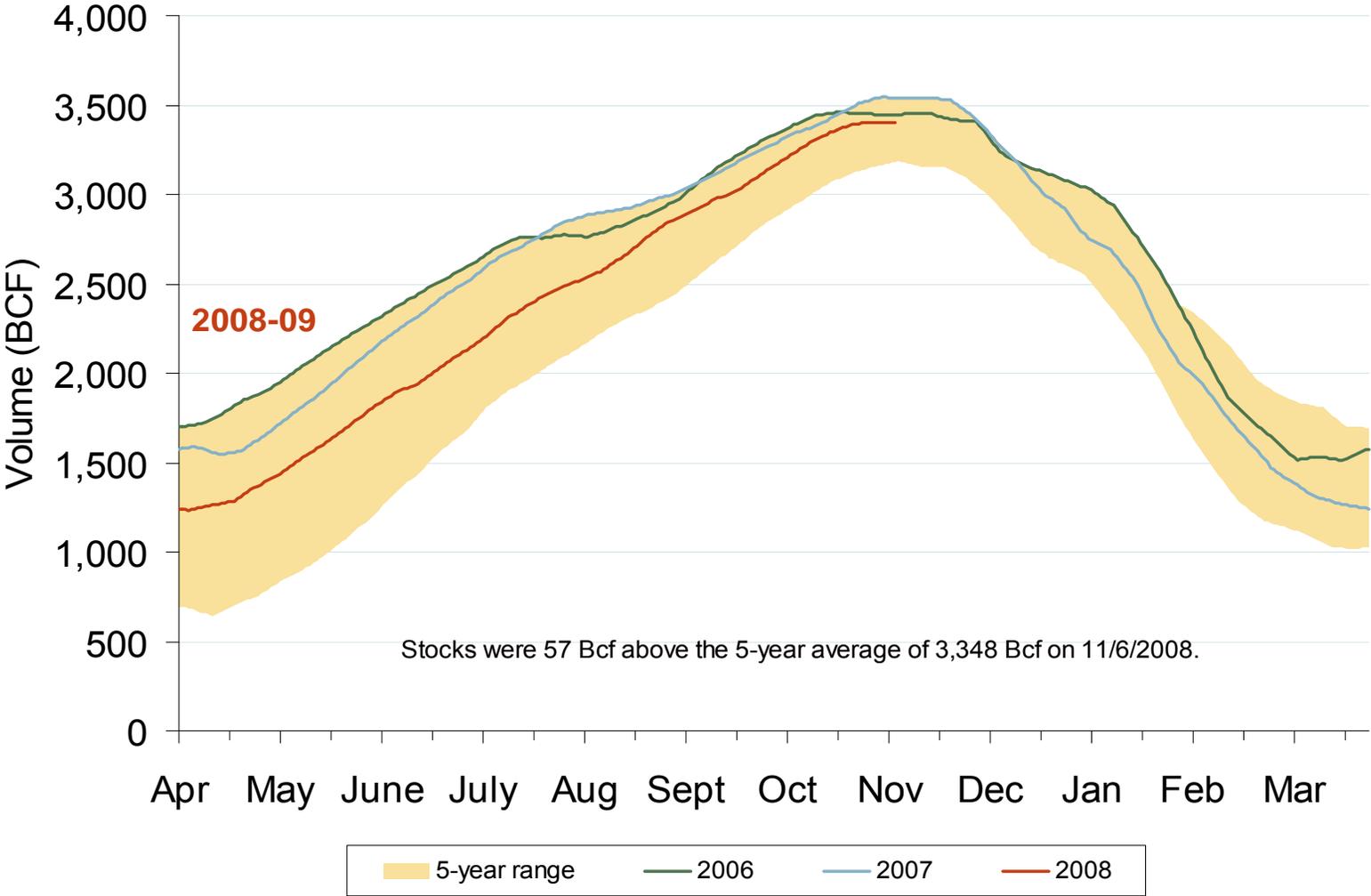


Source: Derived from *Bentek* data.
November 2008 Midwest Snapshot Report

Total U.S. Natural Gas Demand (All Sectors)



Total U.S. Working Gas in Storage

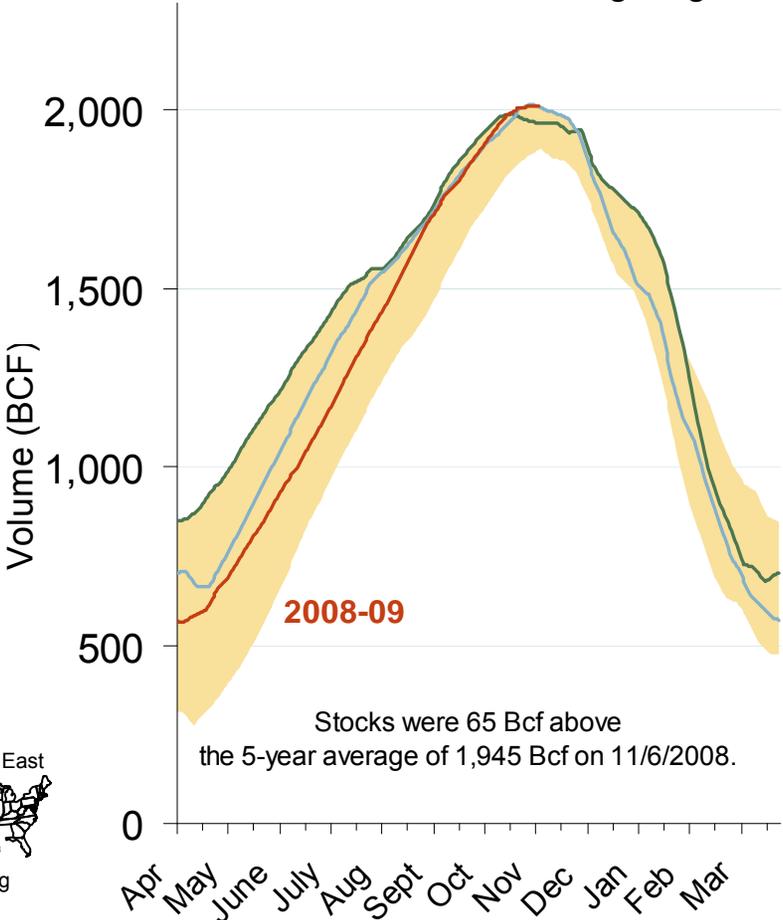


Stocks were 57 Bcf above the 5-year average of 3,348 Bcf on 11/6/2008.

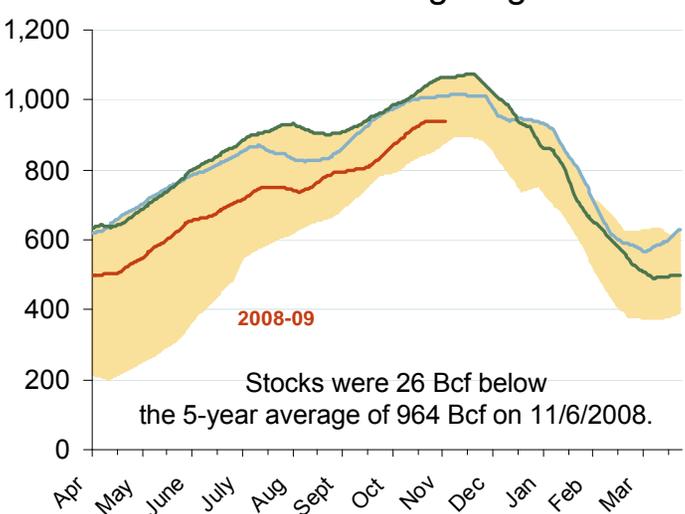
2008-09

Regional Totals of Working Gas in Storage

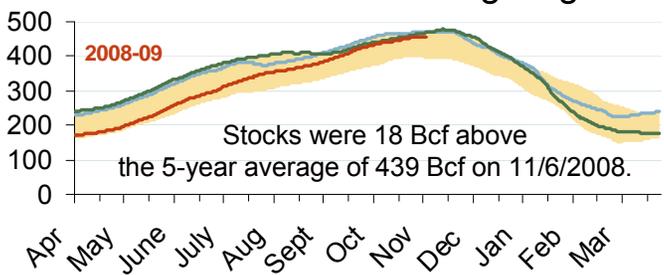
Eastern Consuming Region



Producing Region



Western Consuming Region

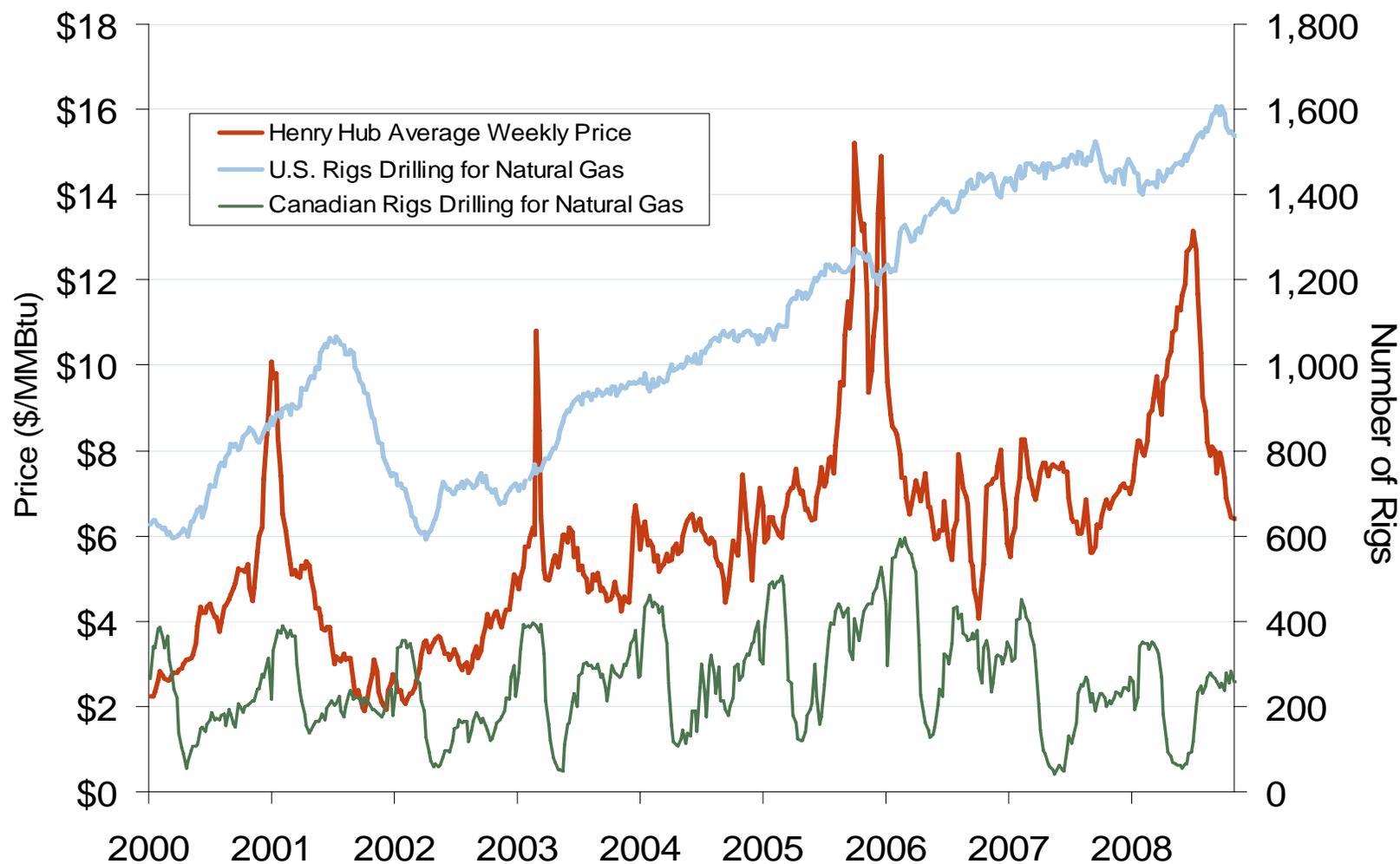


5-year range
 2006
 2007
 2008

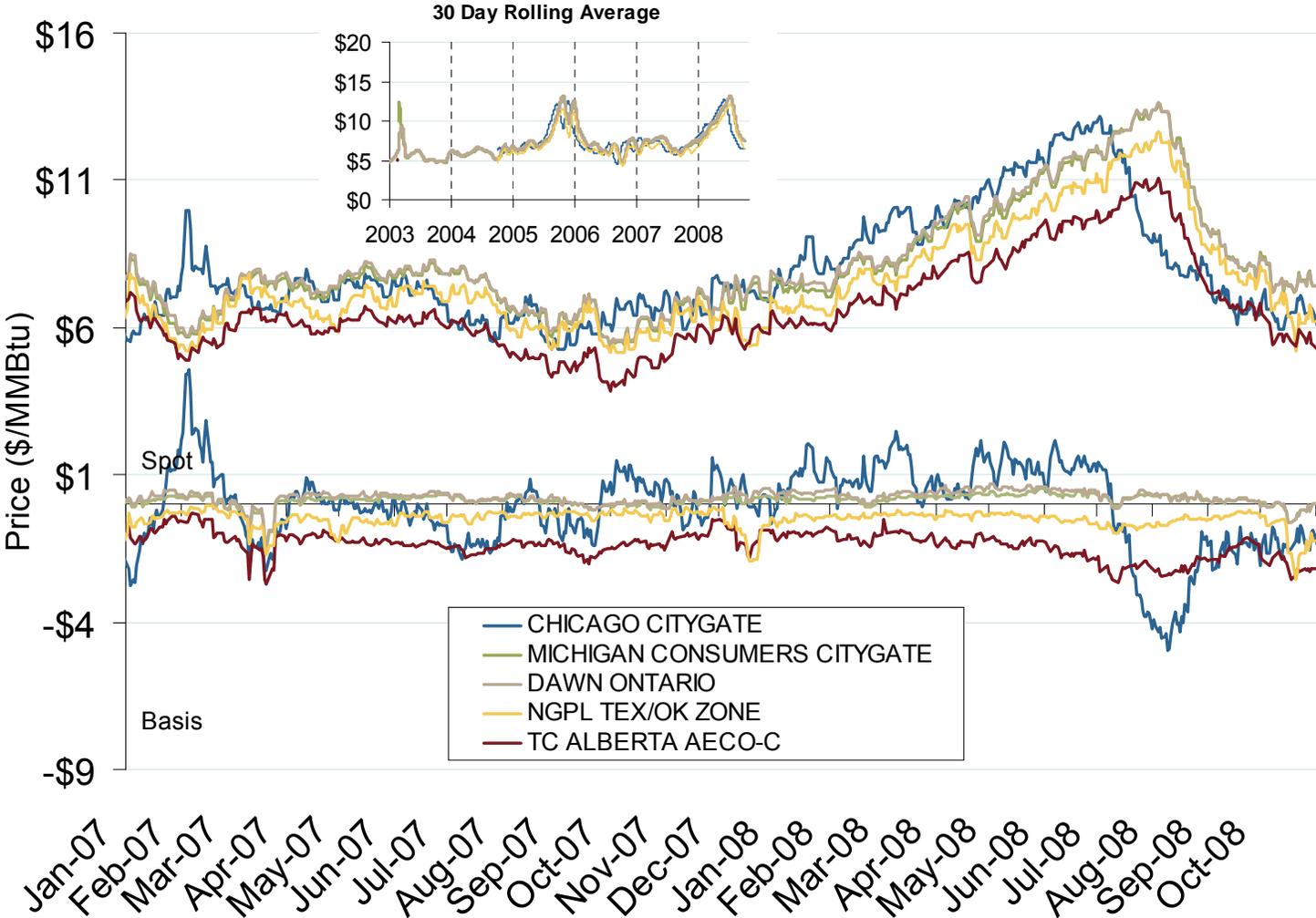
Source: Derived from EIA data. November 2008 Midwest Snapshot Report

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

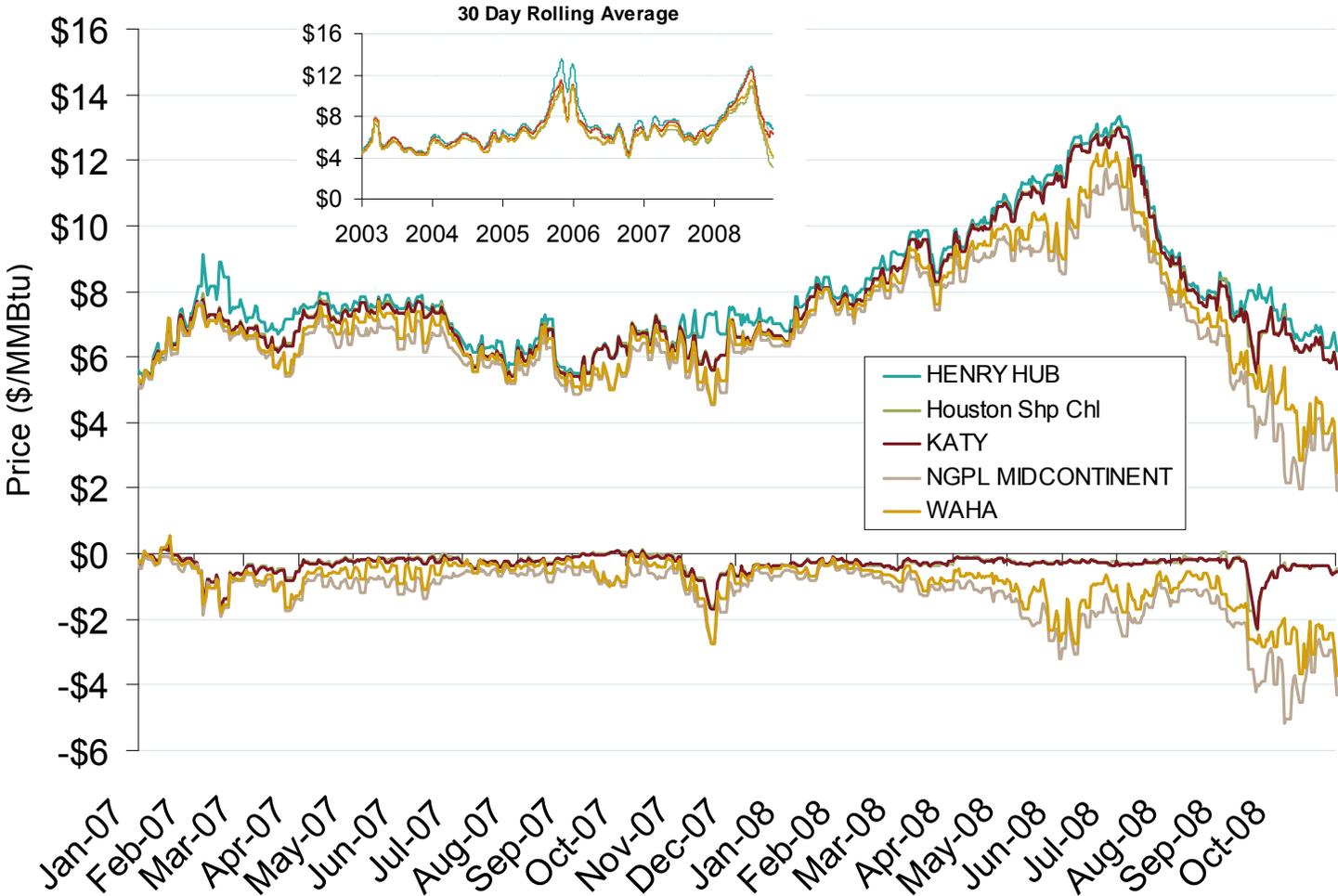


Midwestern Day-Ahead Hub Spot Prices and Basis



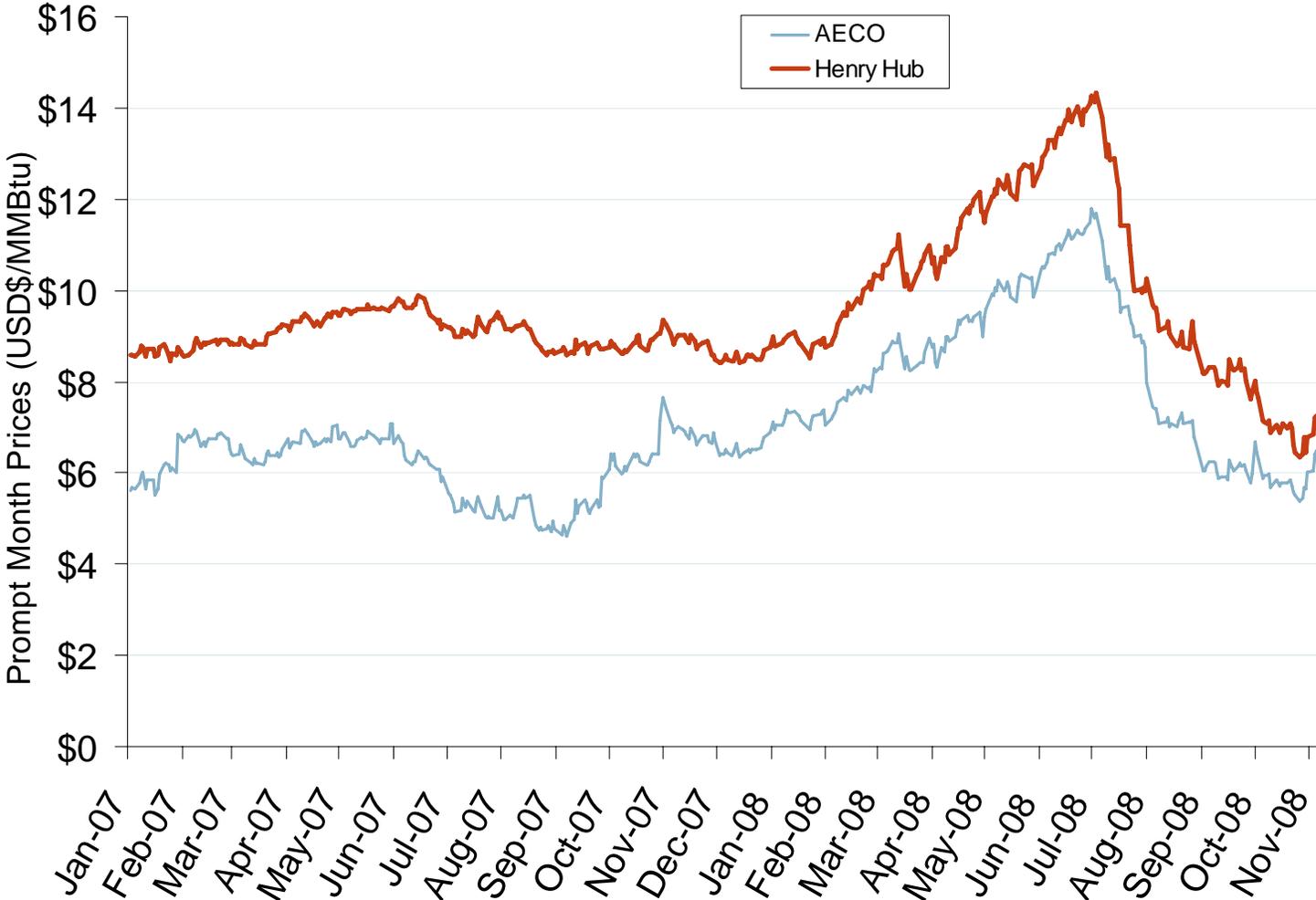
Source: Derived from Platts data.
November 2008 Midwest Snapshot Report

South Central Day-Ahead Hub Spot Prices and Basis



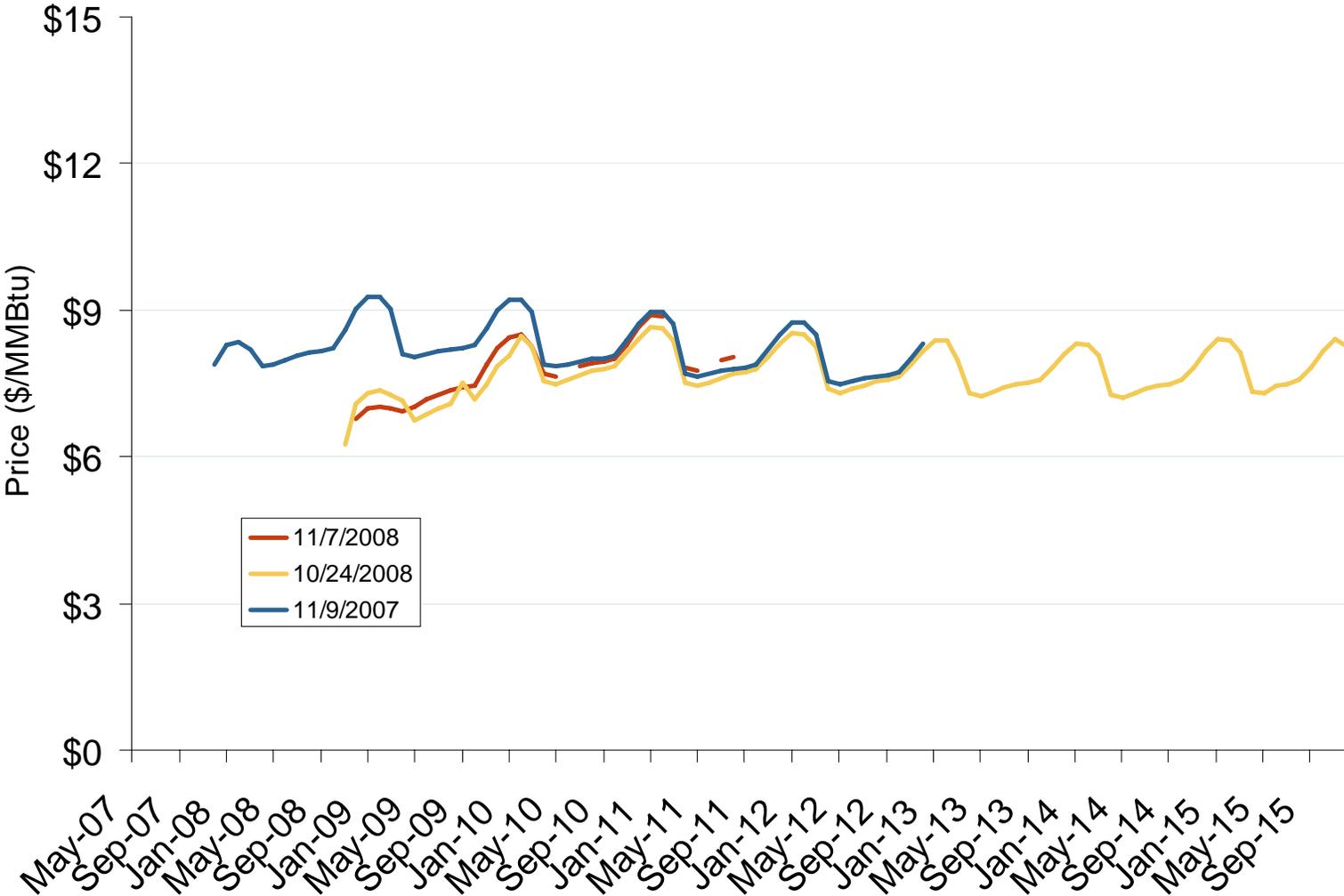
Source: Derived from Platts data.
November 2008 Midwest Snapshot Report

Henry Hub and AECO Prompt-Month Futures Prices



Source: Derived from ICE data.
November 2008 Midwest Snapshot Report

NYMEX Natural Gas Forward Price Curve



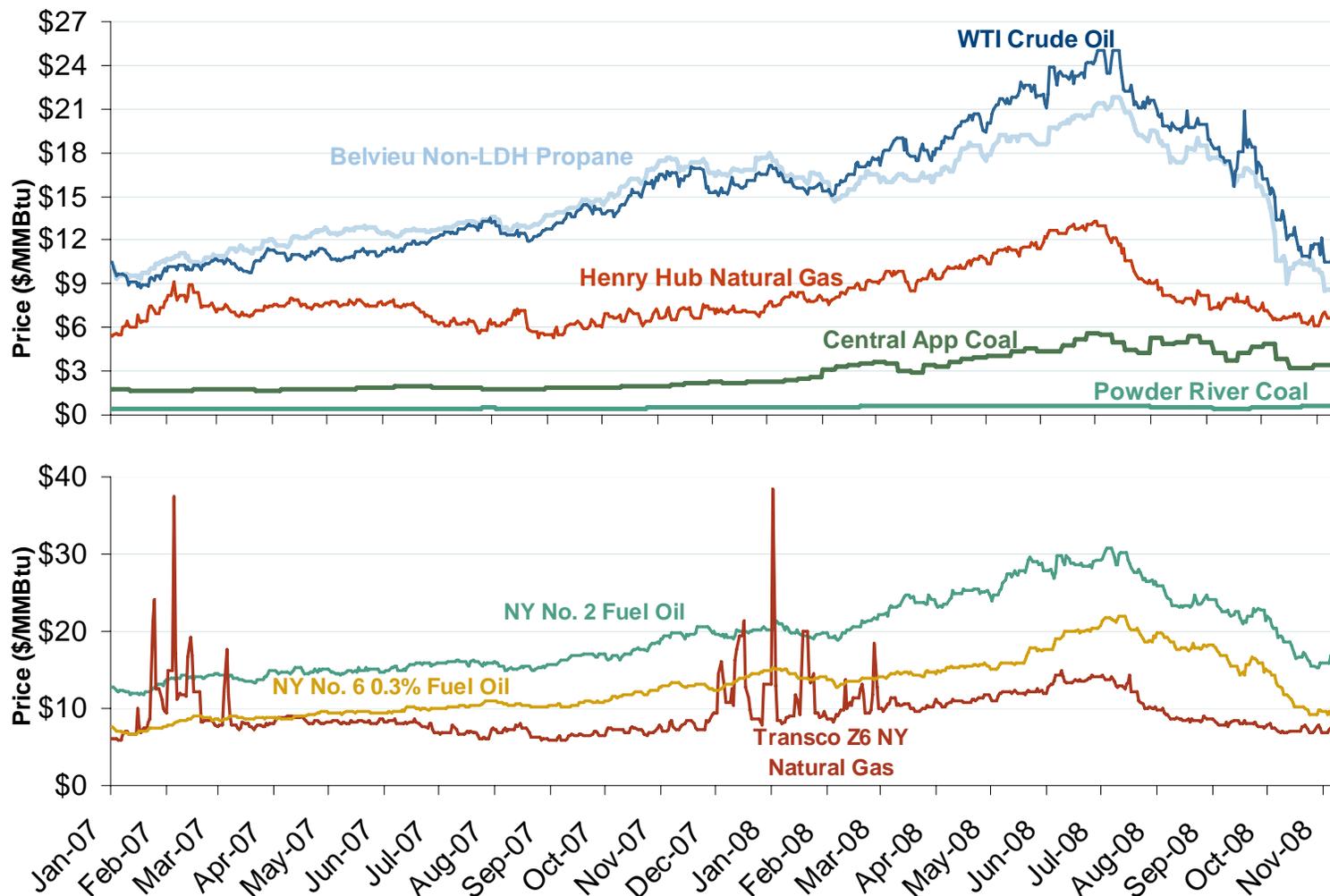
Source: Derived from NYMEX data.
November 2008 Midwest Snapshot Report

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



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

Oil, Coal, Natural Gas and Propane Daily Spot Prices

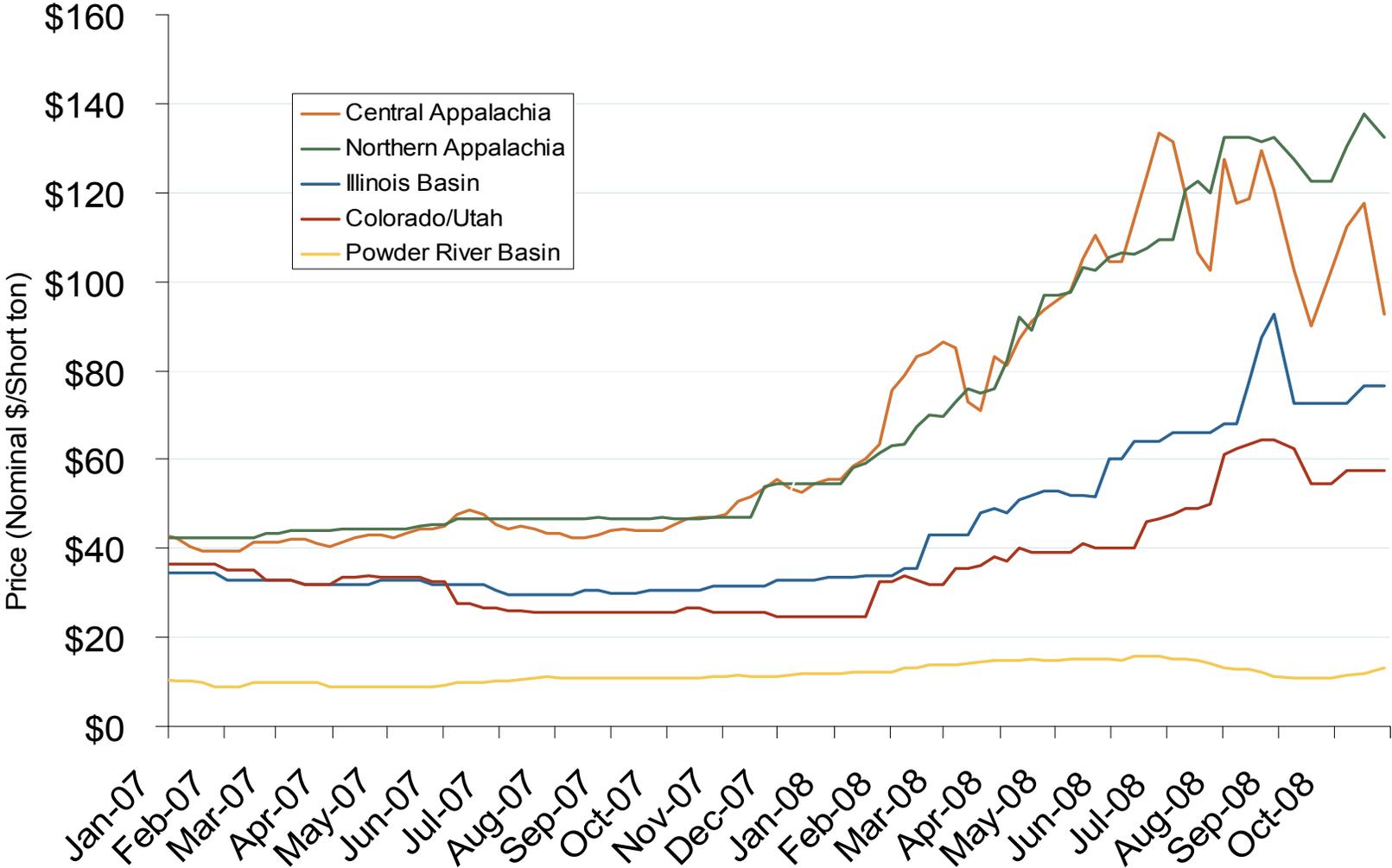


Source: Derived from ICE and Bloomberg data.

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 November 7, 2009

Regional Coal Spot Prices

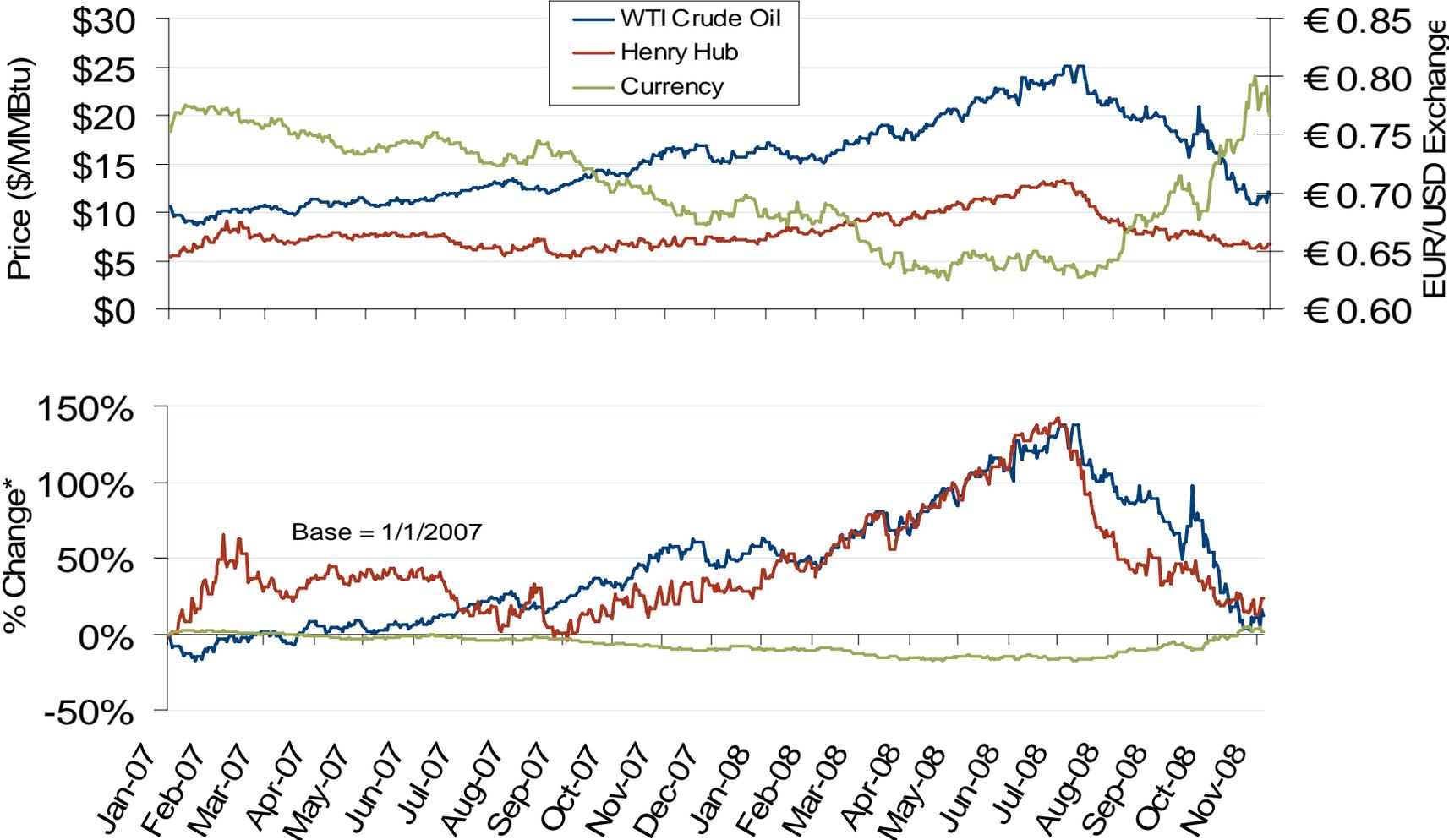


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.
November 2008 Midwest Snapshot Report

Updated November 7, 2008

Oil, Natural Gas and Currency Spot Prices

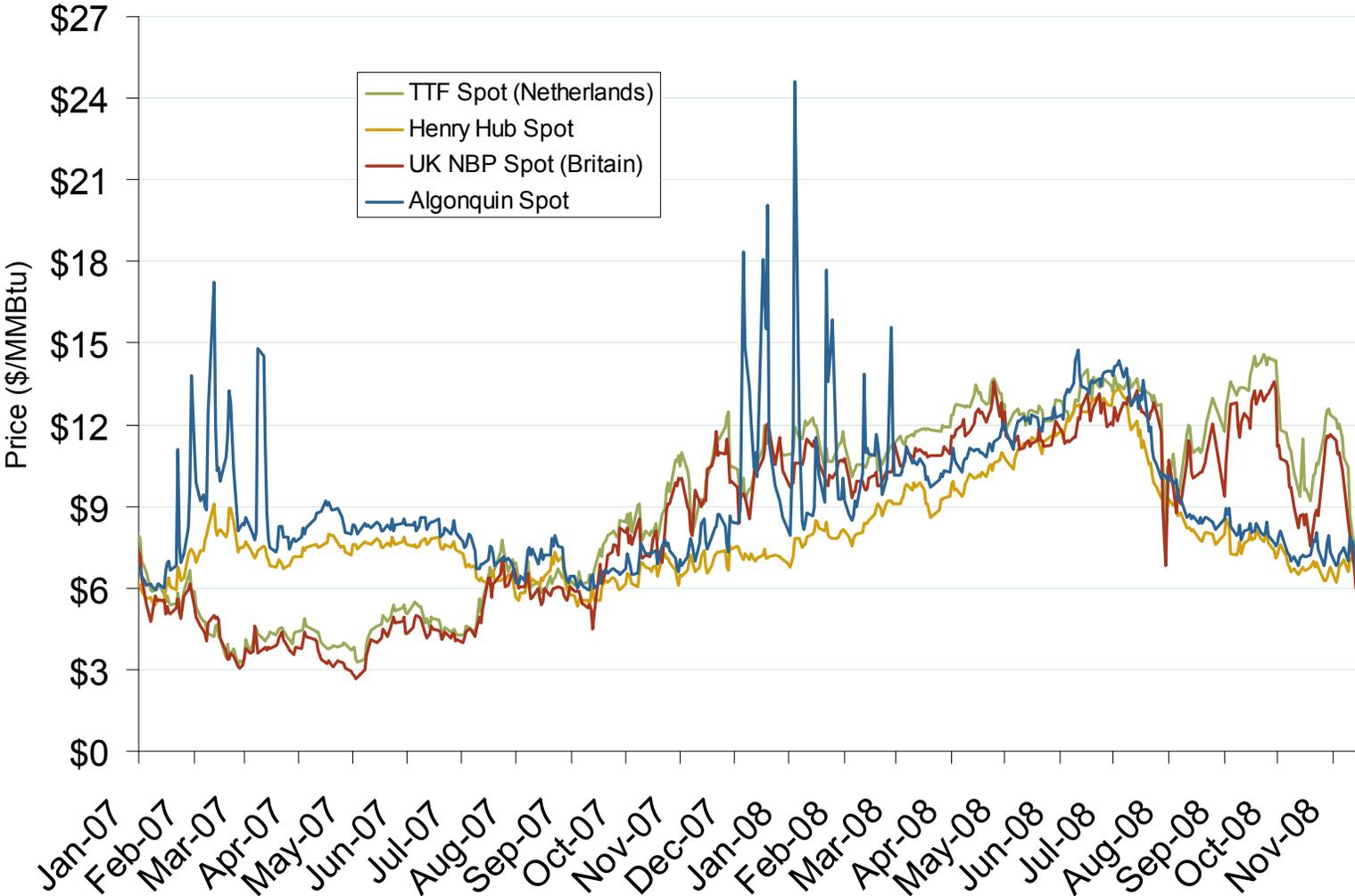


Source: Derived from *Bloomberg* data.

World LNG Estimated November 2008 Landed Prices



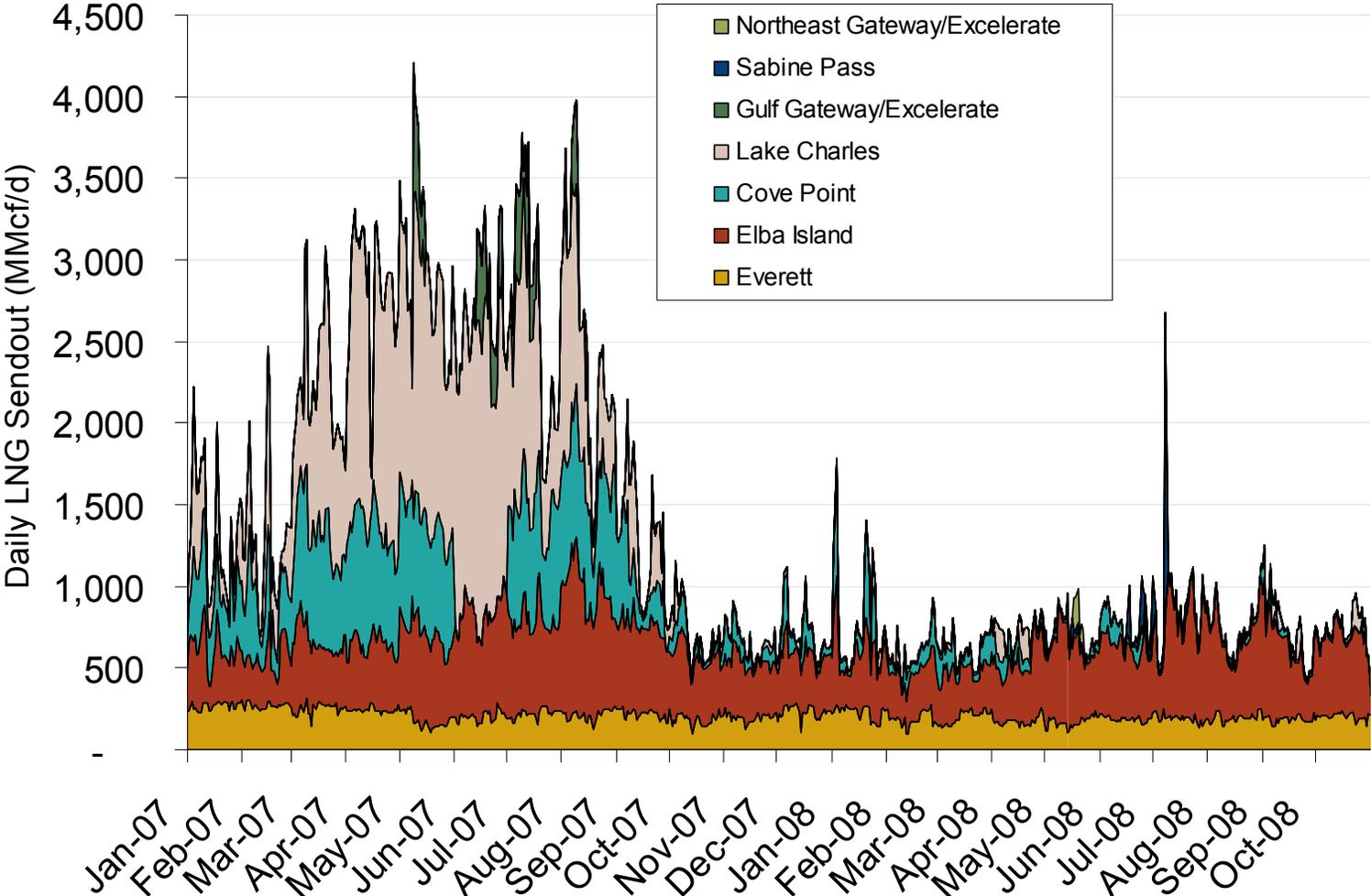
Atlantic Basin European and US Spot Natural Gas Prices



Source: Derived from *Bloomberg* and *ICE* data.
November 2008 Midwest Snapshot Report

Updated November 7, 2008

Daily Gas Sendout from Existing U.S. LNG Facilities



Source: Derived from *Bentek* data. Excludes Everett LNG delivered via truck and consumed by the Mystic plant as well as Freeport LNG which flows via intrastate pipelines.
November 2008 Midwest Snapshot Report