

OE ENERGY MARKET SNAPSHOT

Midwest States Version – June 2008 Data

- **Market Fundamentals**
- **Prices and Market Analysis**

Office of Enforcement
Federal Energy Regulatory Commission
July 2008



Increasing Costs in Electric Markets

- Item No.: A-3
- June 19, 2008

<http://www.ferc.gov/legal/staff-reports/06-19-08-cost-electric.pdf>

Electric Power Markets in the West and Southeast



JULY 1, 2008

PRESENTATION BY THE
OFFICE OF ENFORCEMENT

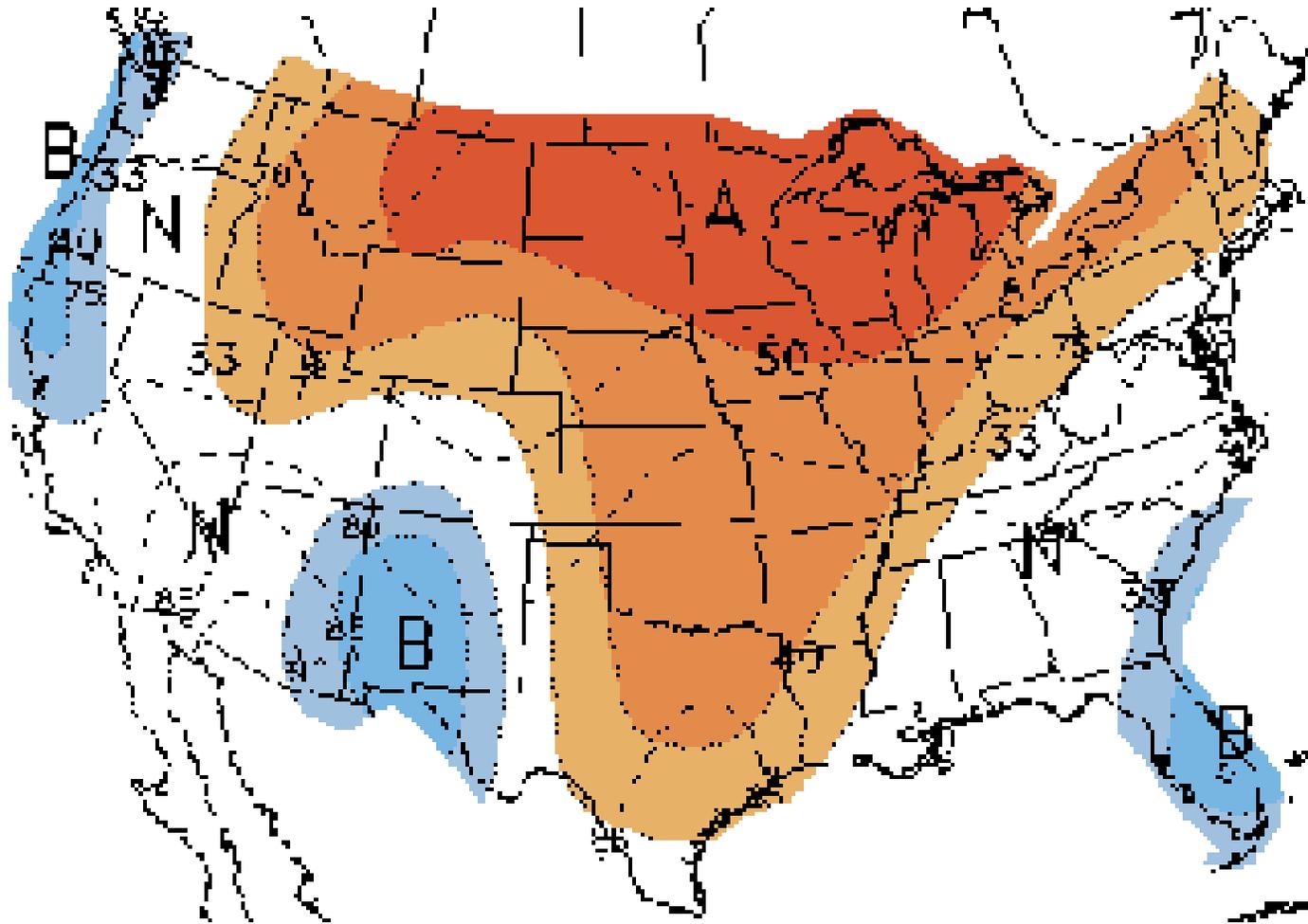
CHARLES WHITMORE
DIVISION OF ENERGY MARKET OVERSIGHT

<http://www.ferc.gov/EventCalendar/Files/20080701154408-FERC.pdf>



Market Fundamentals

NOAA's 8 to 14 Day Temperature Forecast Made July 8, Valid for July 16 – July 22, 2008



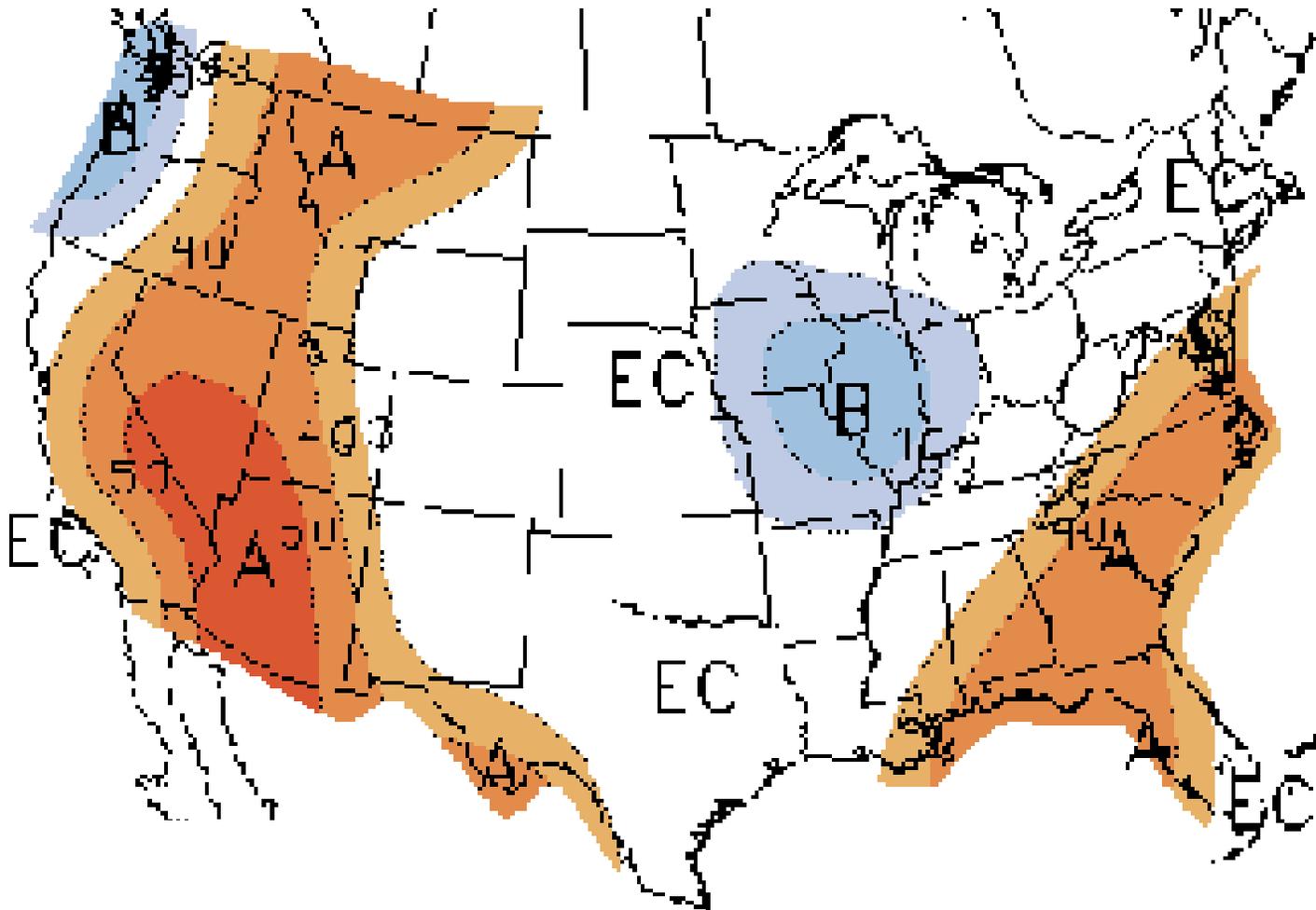
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: NOAA

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3012

NOAA's Monthly Temperature Forecast Made June 30, Valid for July 2008



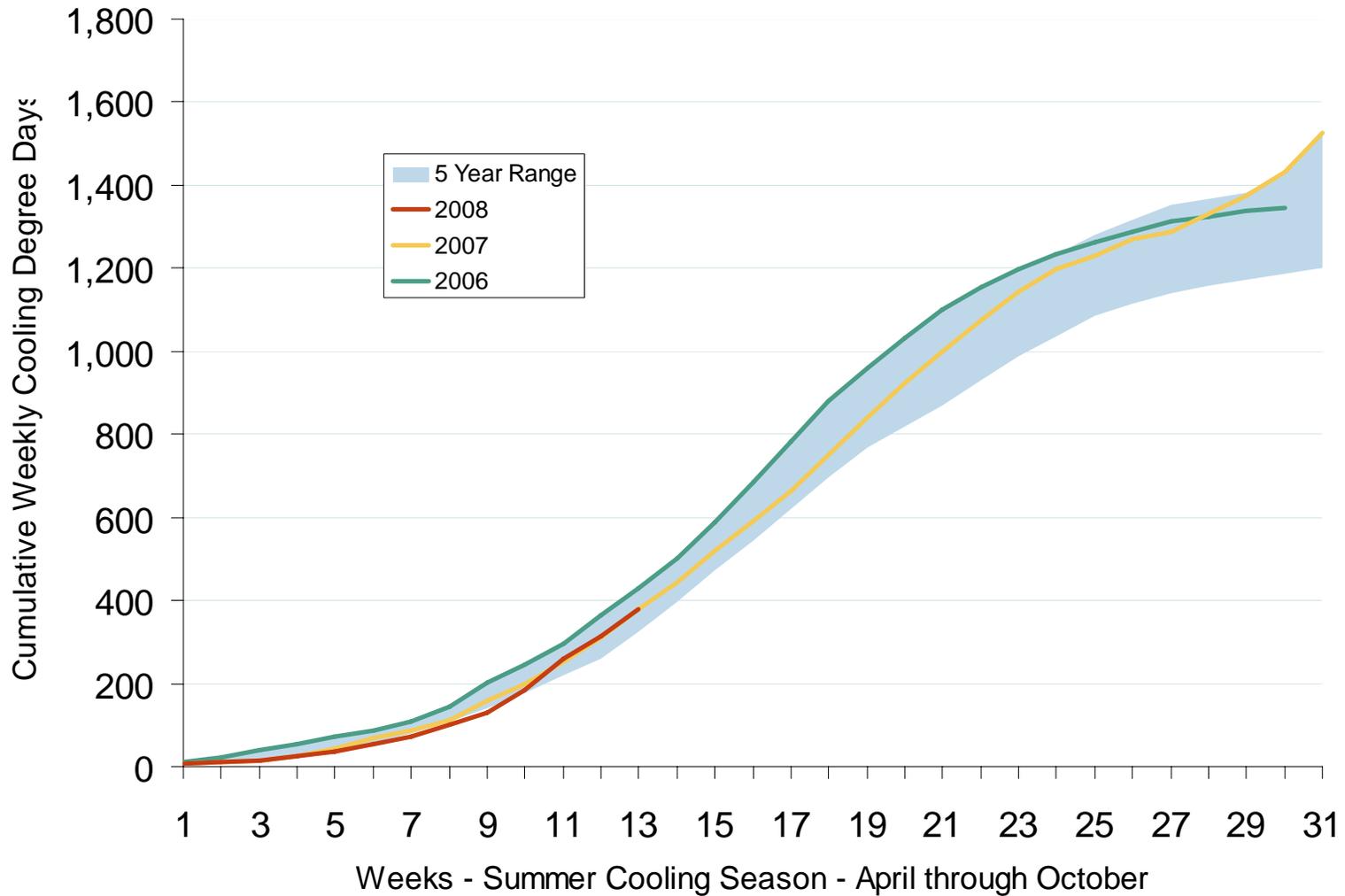
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal based on the last 30 years of data.

Source: NOAA

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3012

U. S. Summer Cumulative Cooling Degree Days

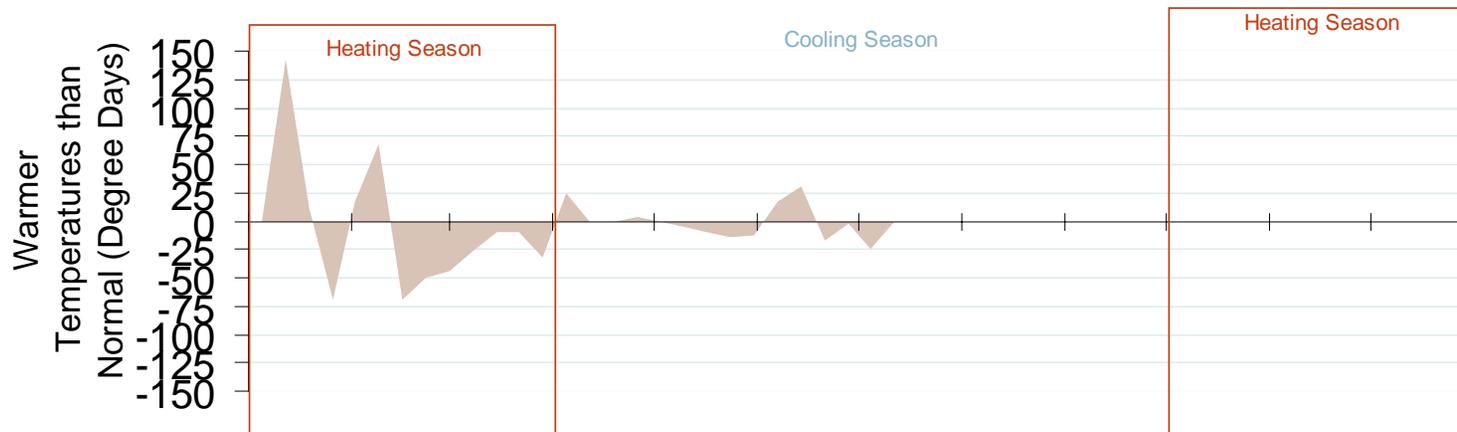
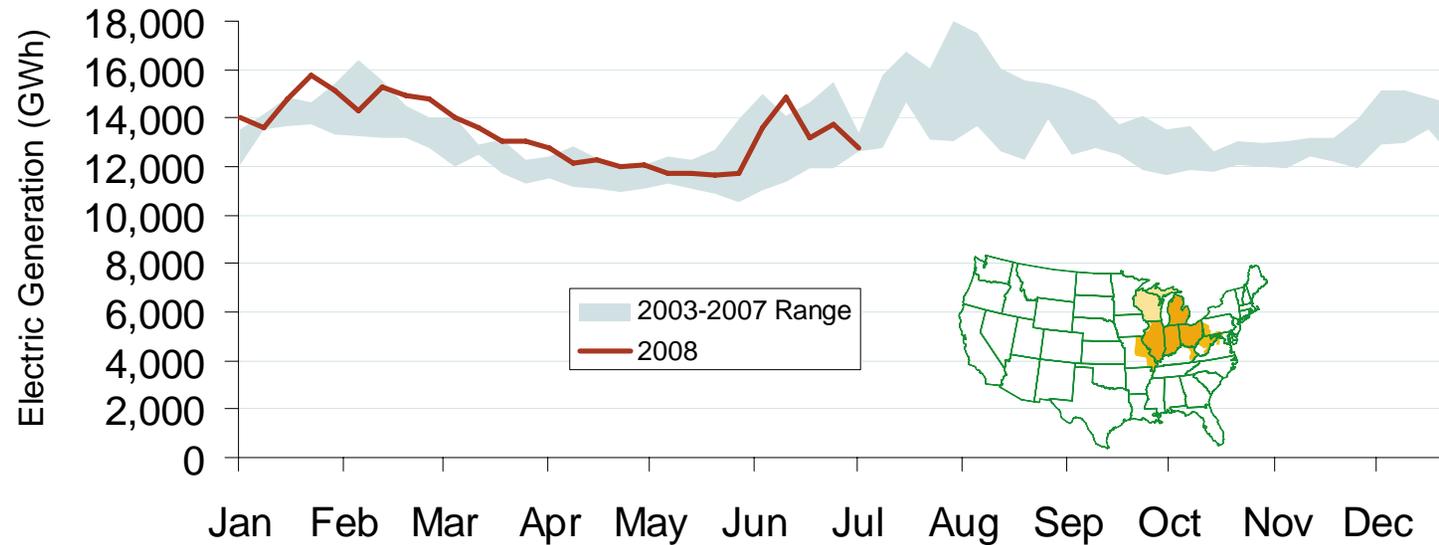


Source: Derived from NOAA data.

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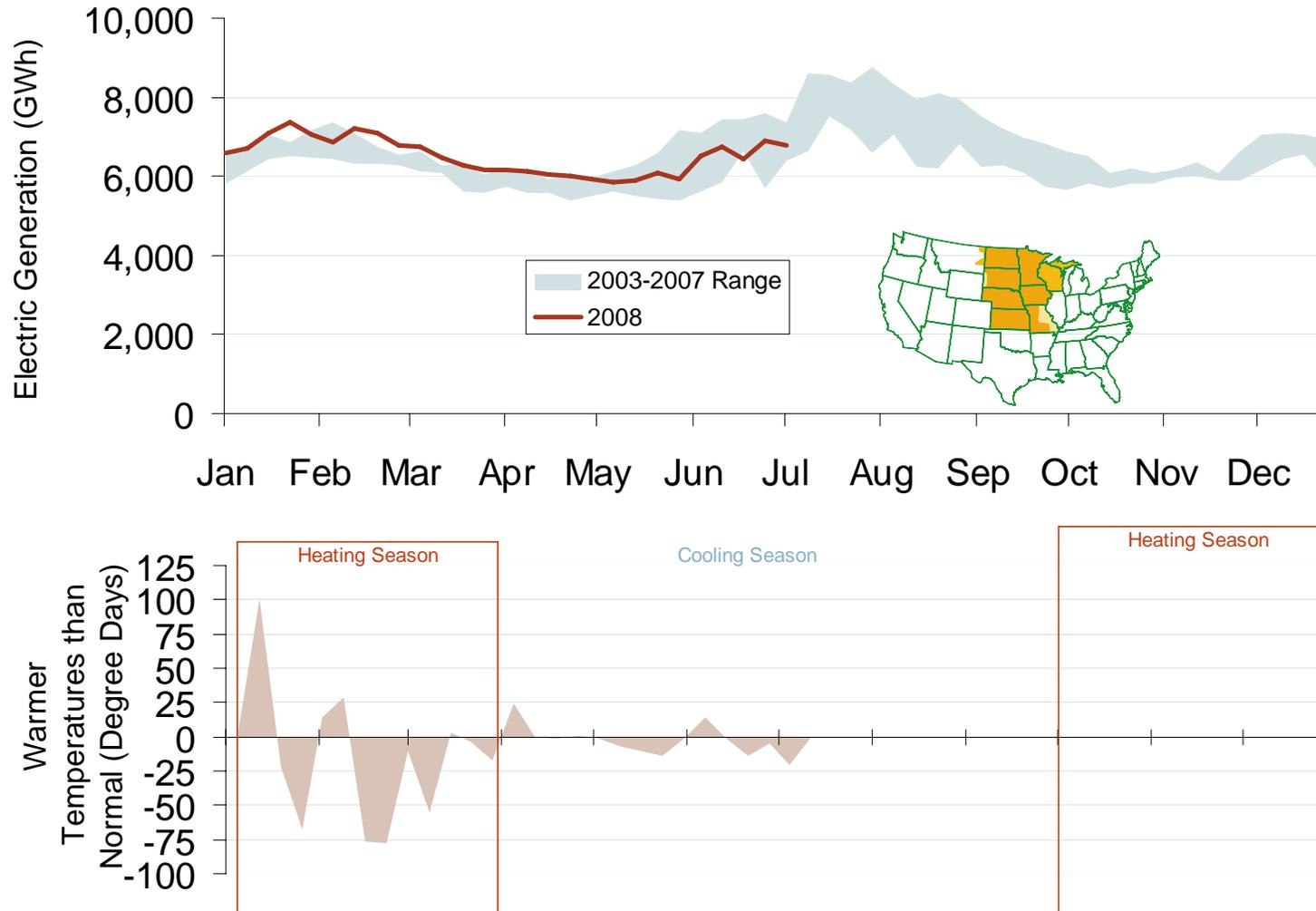
3023

Weekly Electric Generation Output and Temperatures Central Industrial Region



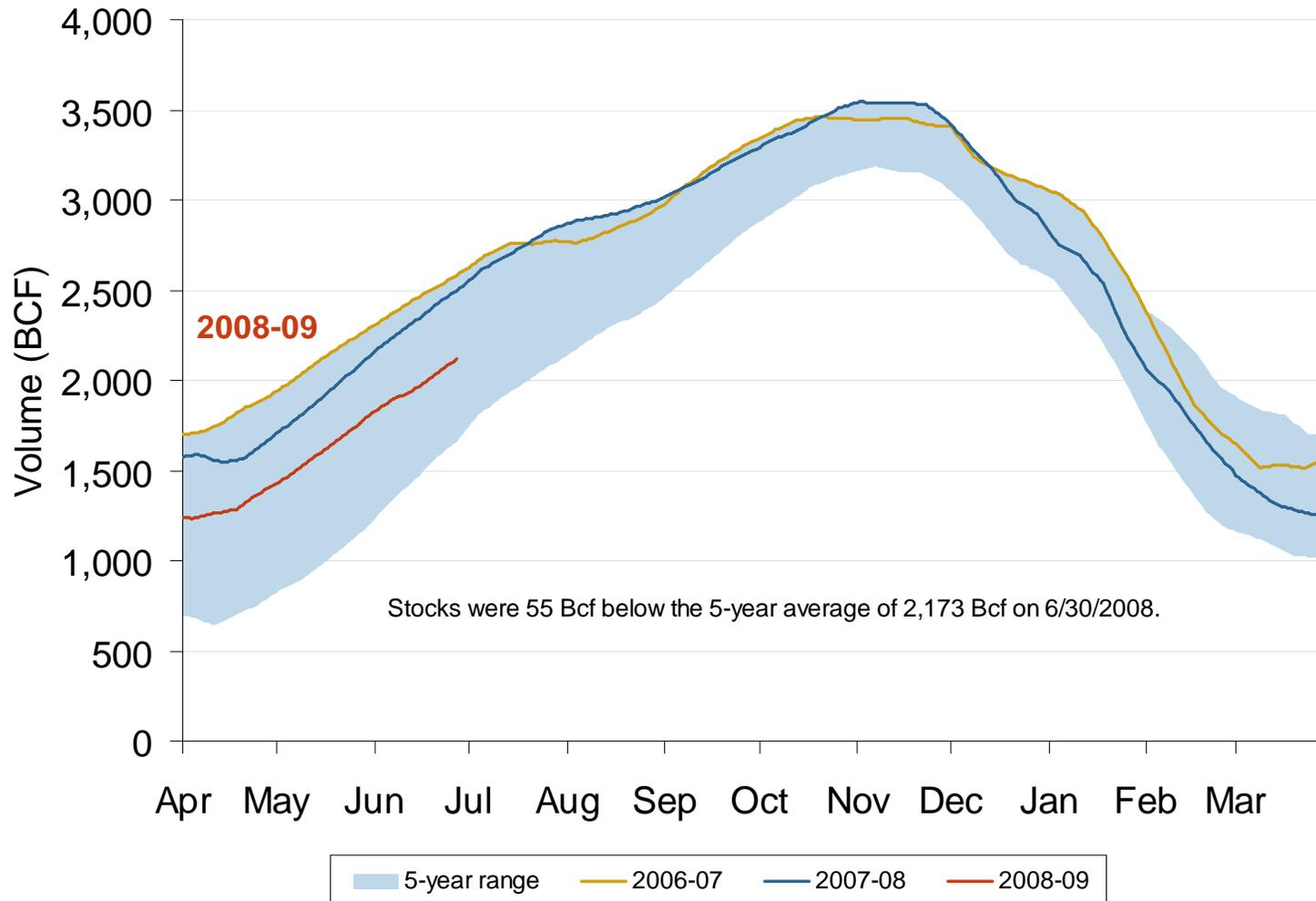
Source: Derived from EEI and NOAA data.

Weekly Electric Generation Output and Temperatures West Central Region



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

Total U.S. Working Gas in Storage

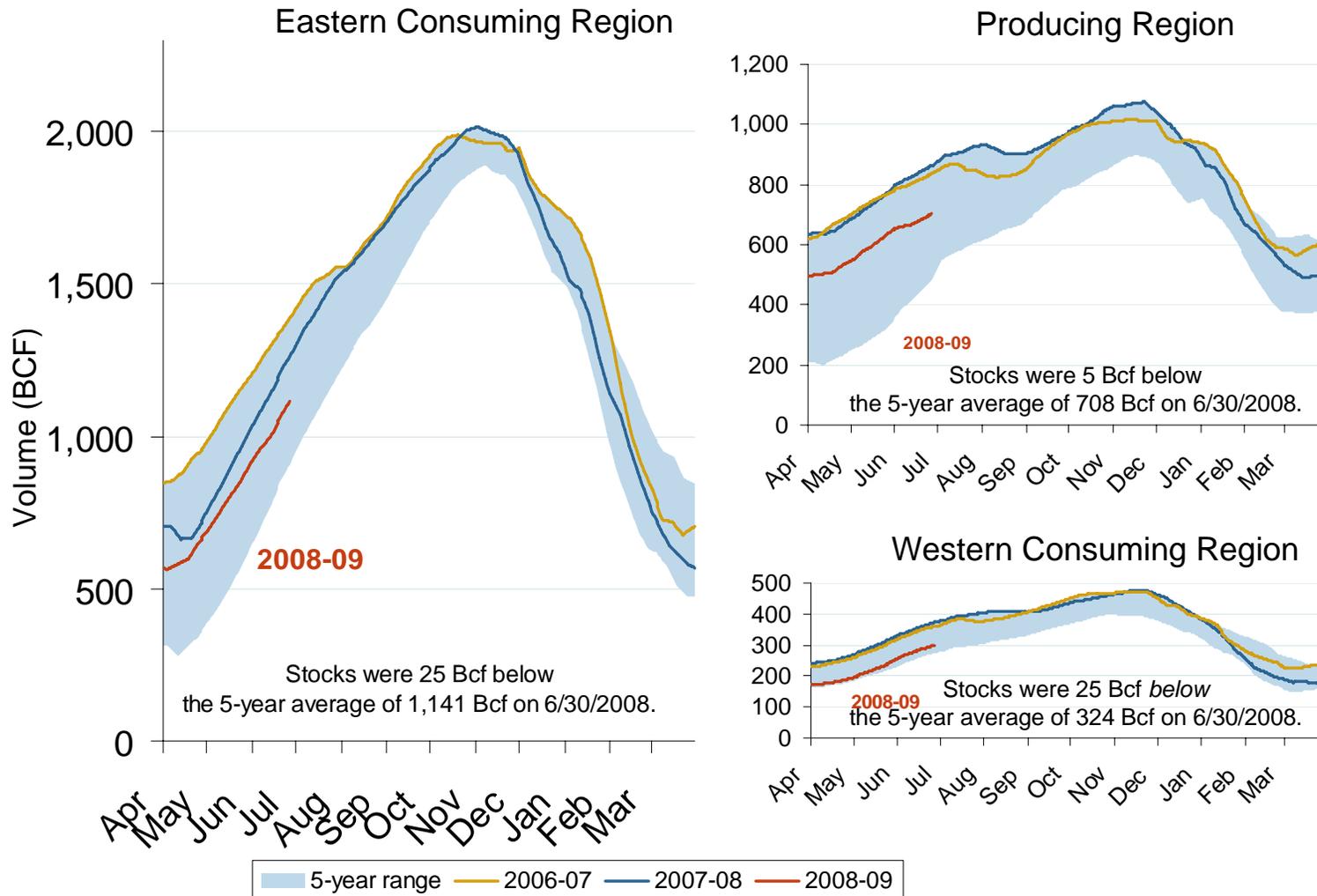


Source: Derived from EIA data.

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2003

Regional Totals of Working Gas in Storage

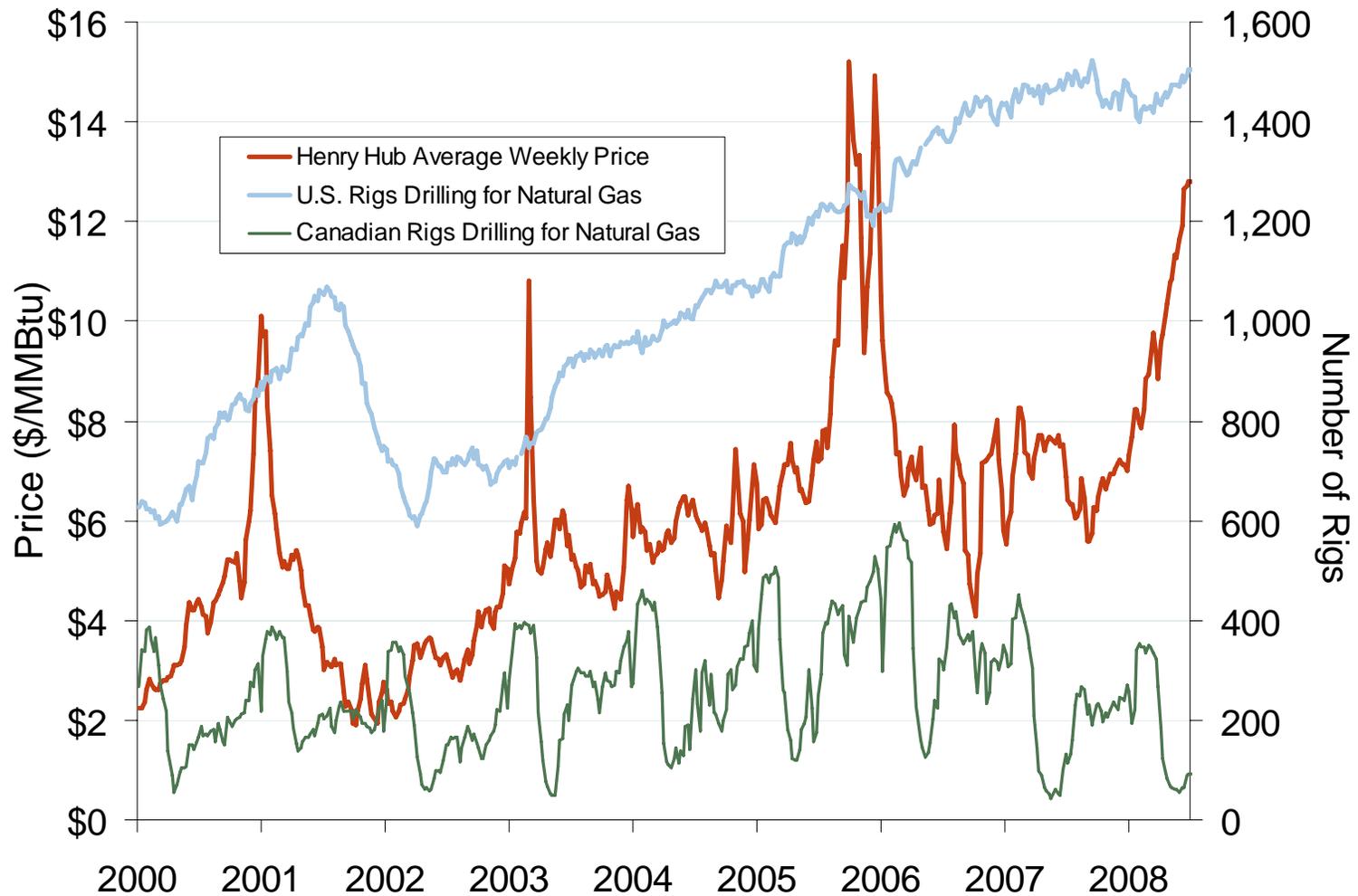


Source: Derived from EIA data.

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2004

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

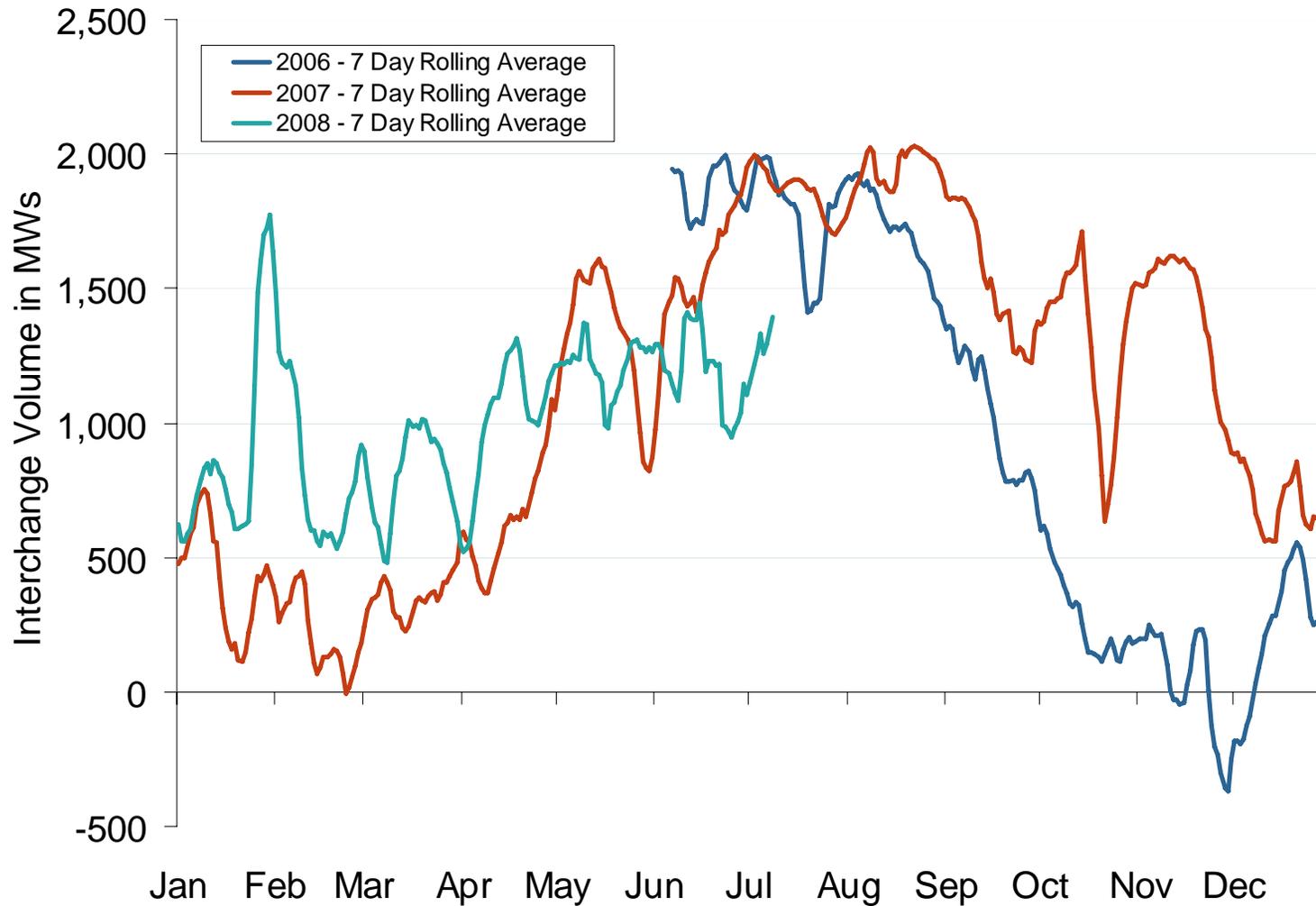


Source: Derived from *Platts* and *Baker Hughes* data.

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2007

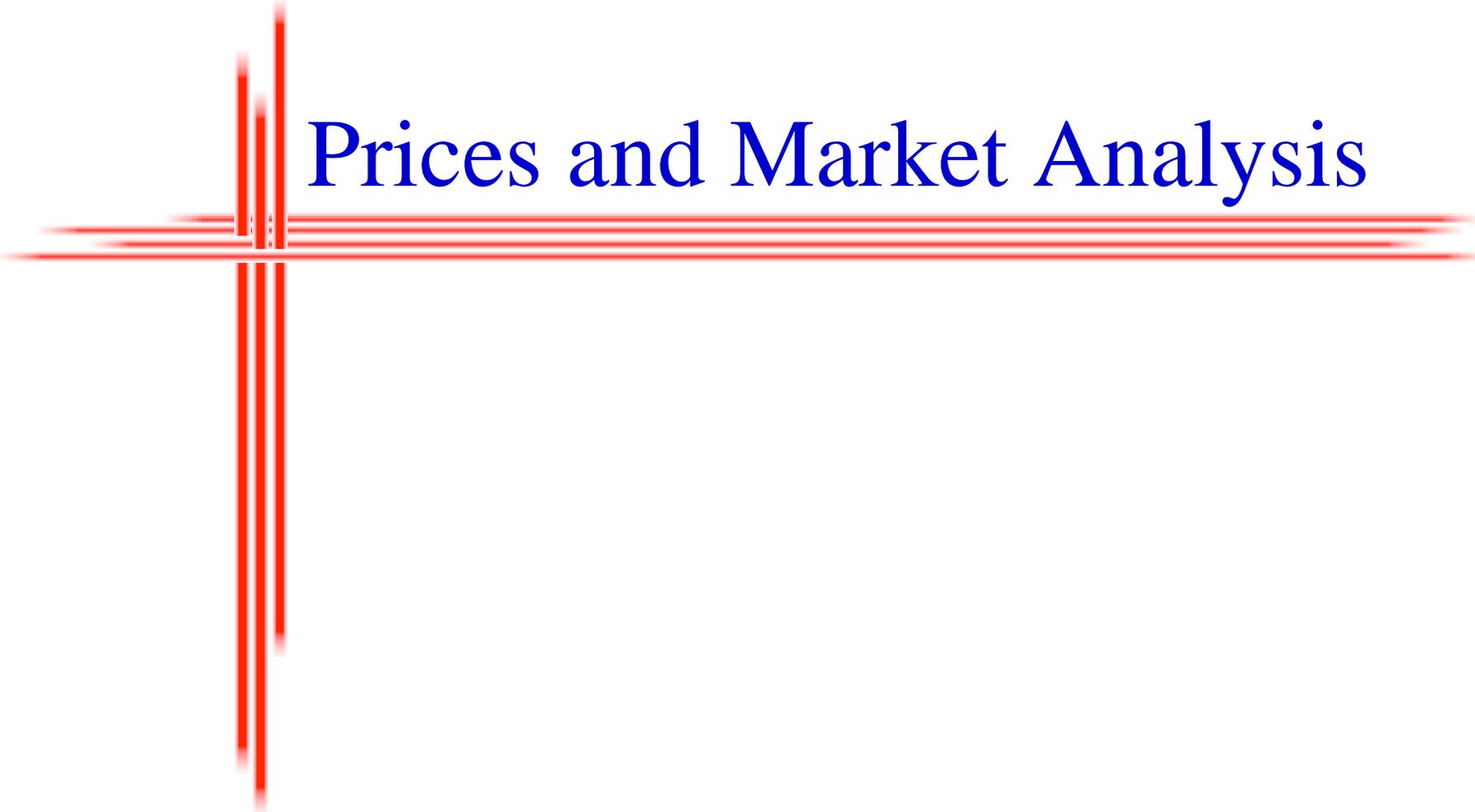
Imports into MISO from Manitoba Hydro 2006, 2007, 2008



Source: Derived from MISO data.

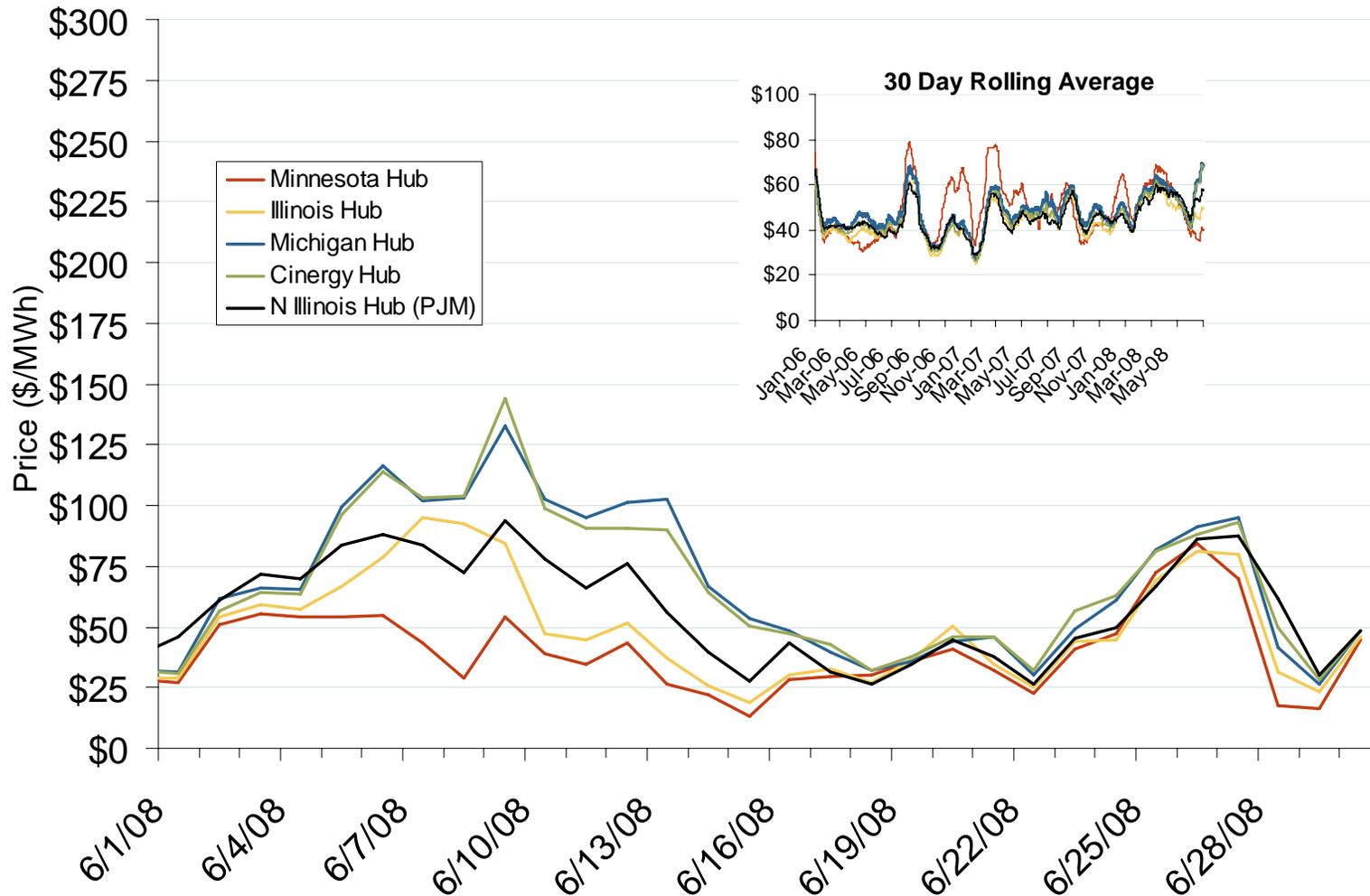
Updated July 9, 2008

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A decorative graphic consisting of several thick, parallel red lines. One vertical line runs down the left side of the page, and several horizontal lines cross it, creating a grid-like structure. The lines are slightly blurred and have a glowing effect.

Prices and Market Analysis

Daily Average of MISO Day-Ahead Prices - All Hours

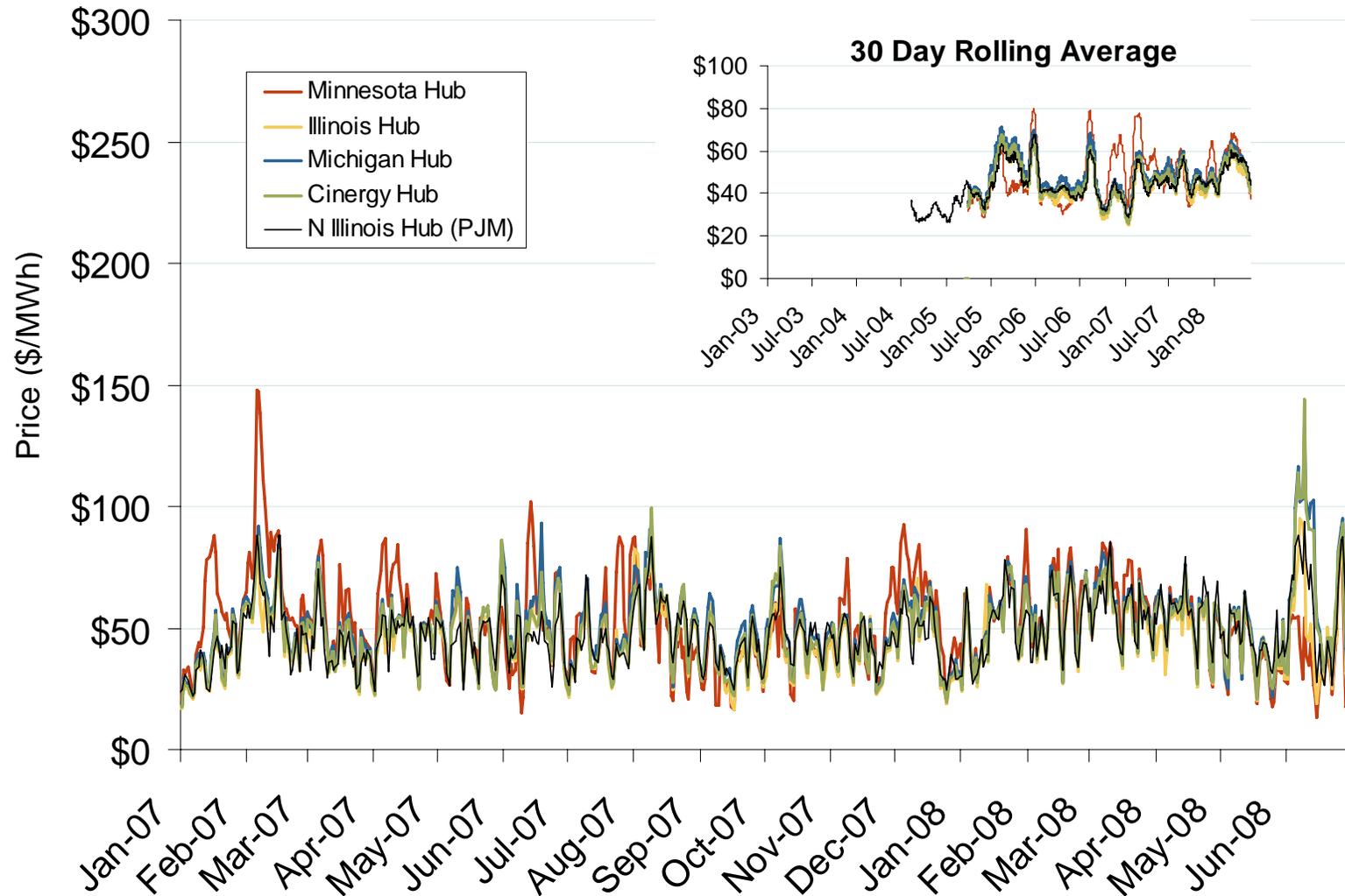


Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.

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Daily Average of MISO Day-Ahead Prices - All Hours

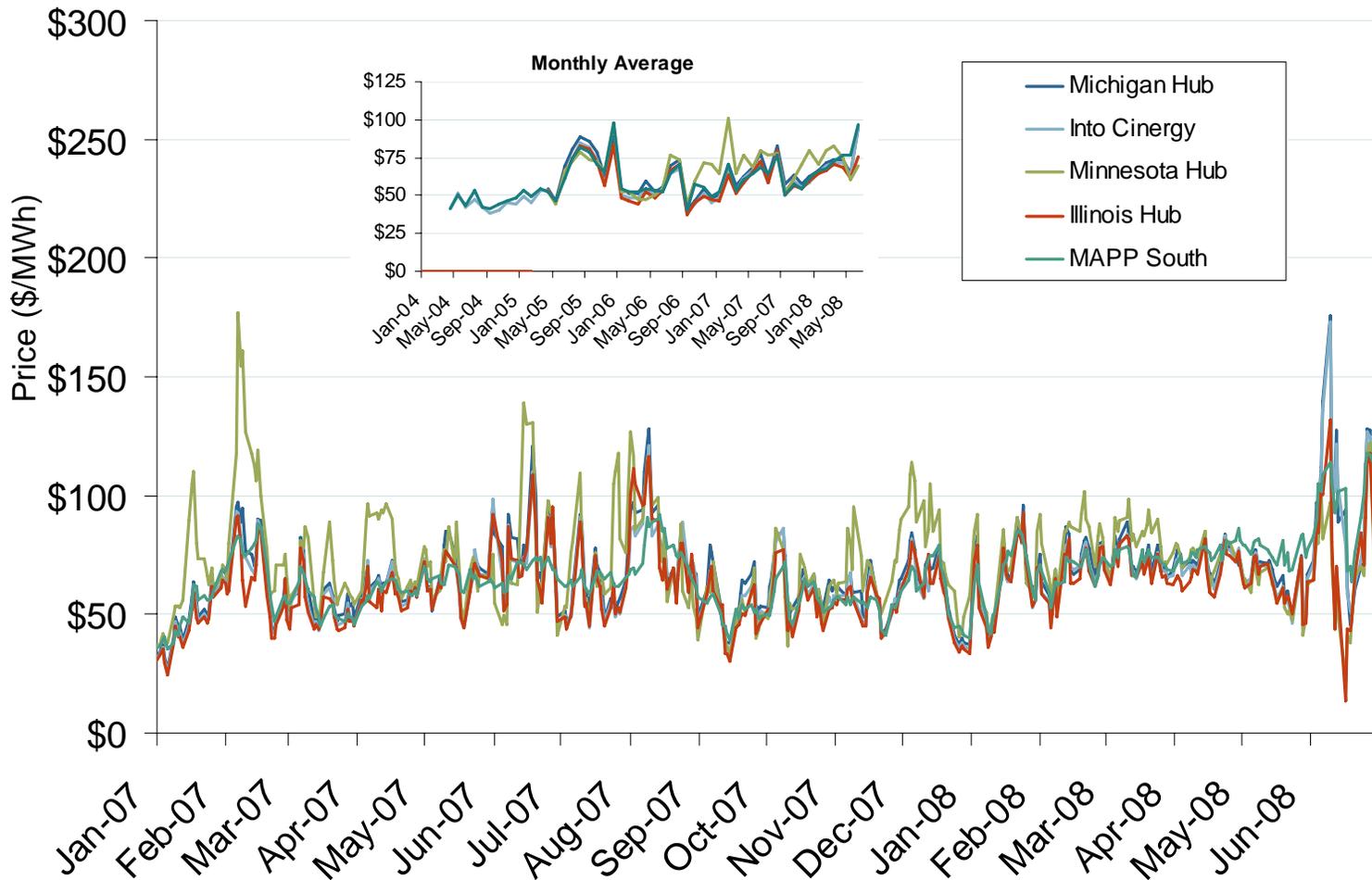


Source: Derived by Bloomberg from MISO and PJM data as reported by Bloomberg.

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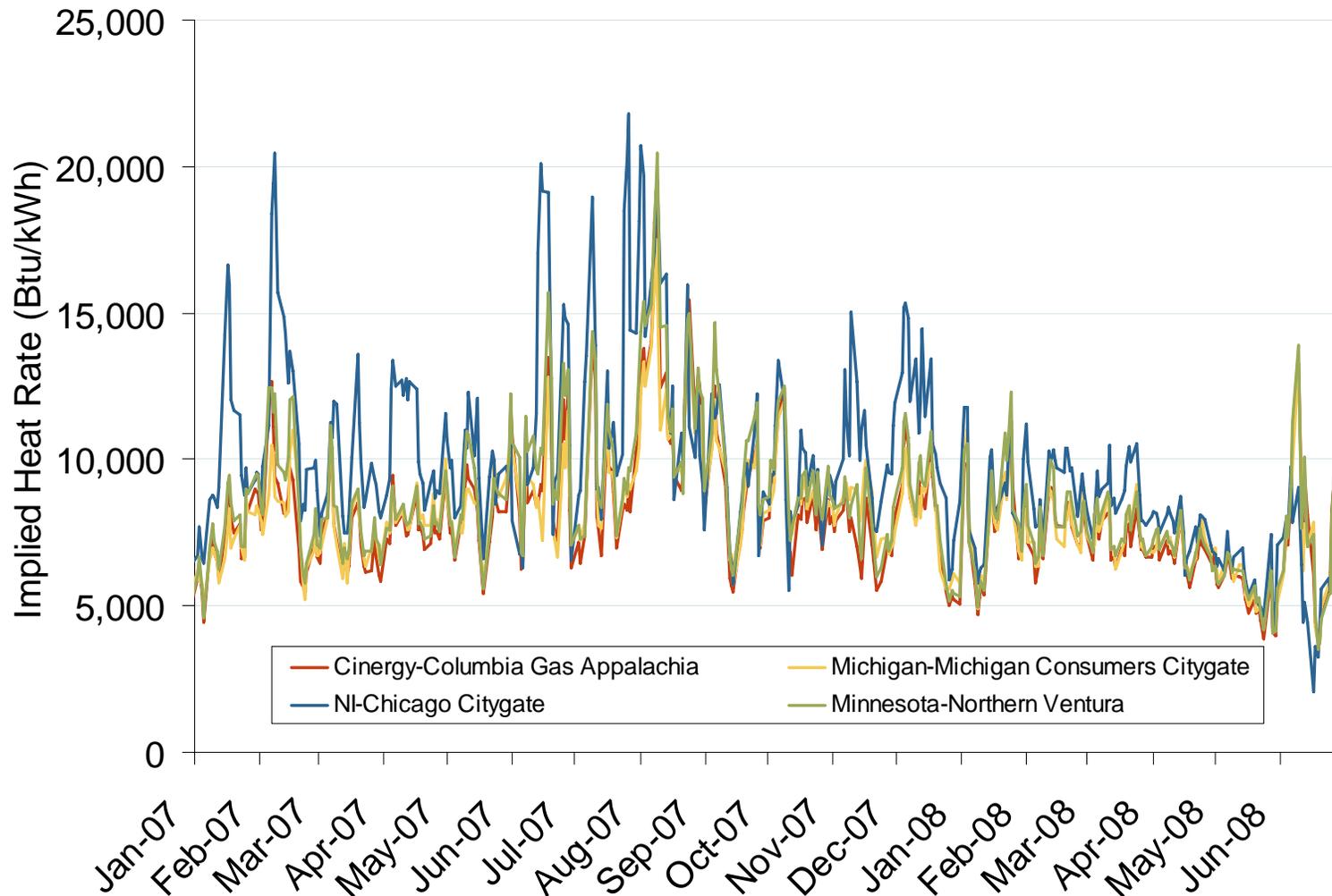
MISO Hub Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated July 9, 2008

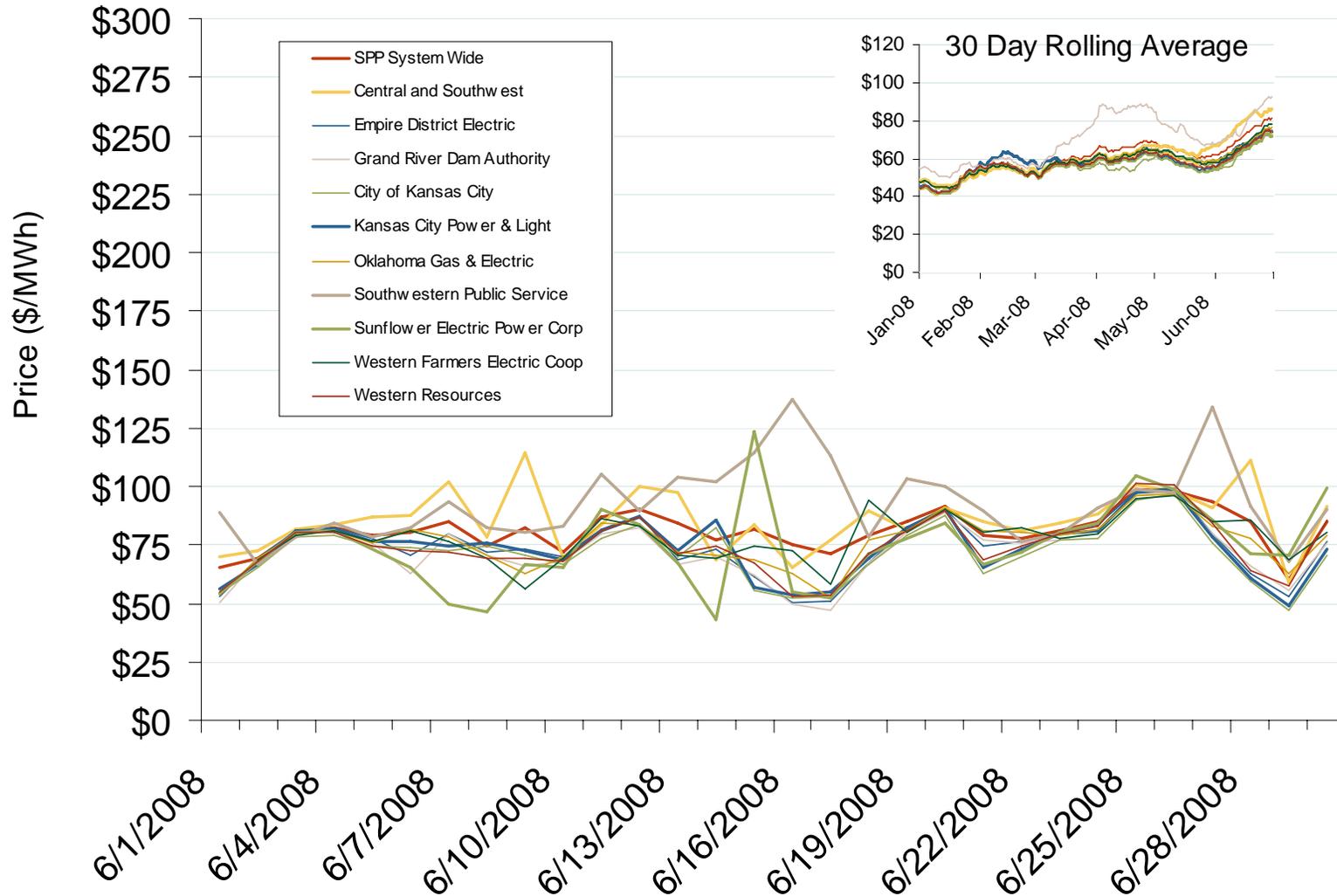
Implied Heat Rates at MISO Hubs



Source: Derived from *Platts* data

Updated July 9, 2008

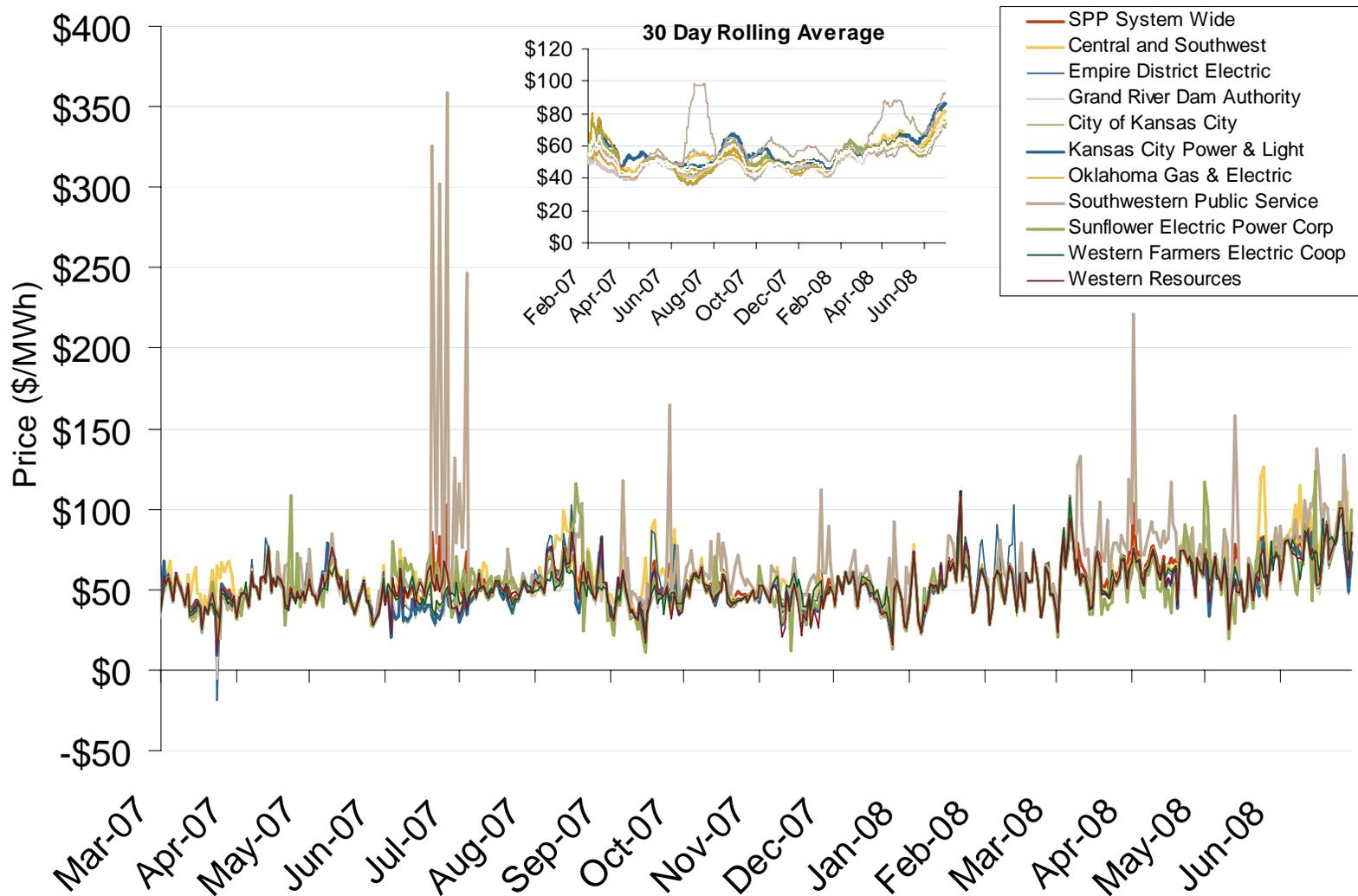
Daily Average of SPP Real Time Prices - All Hours



Source: Derived from SPP data.

Updated July 9, 2008

Daily Average of SPP Real Time Prices - All Hours

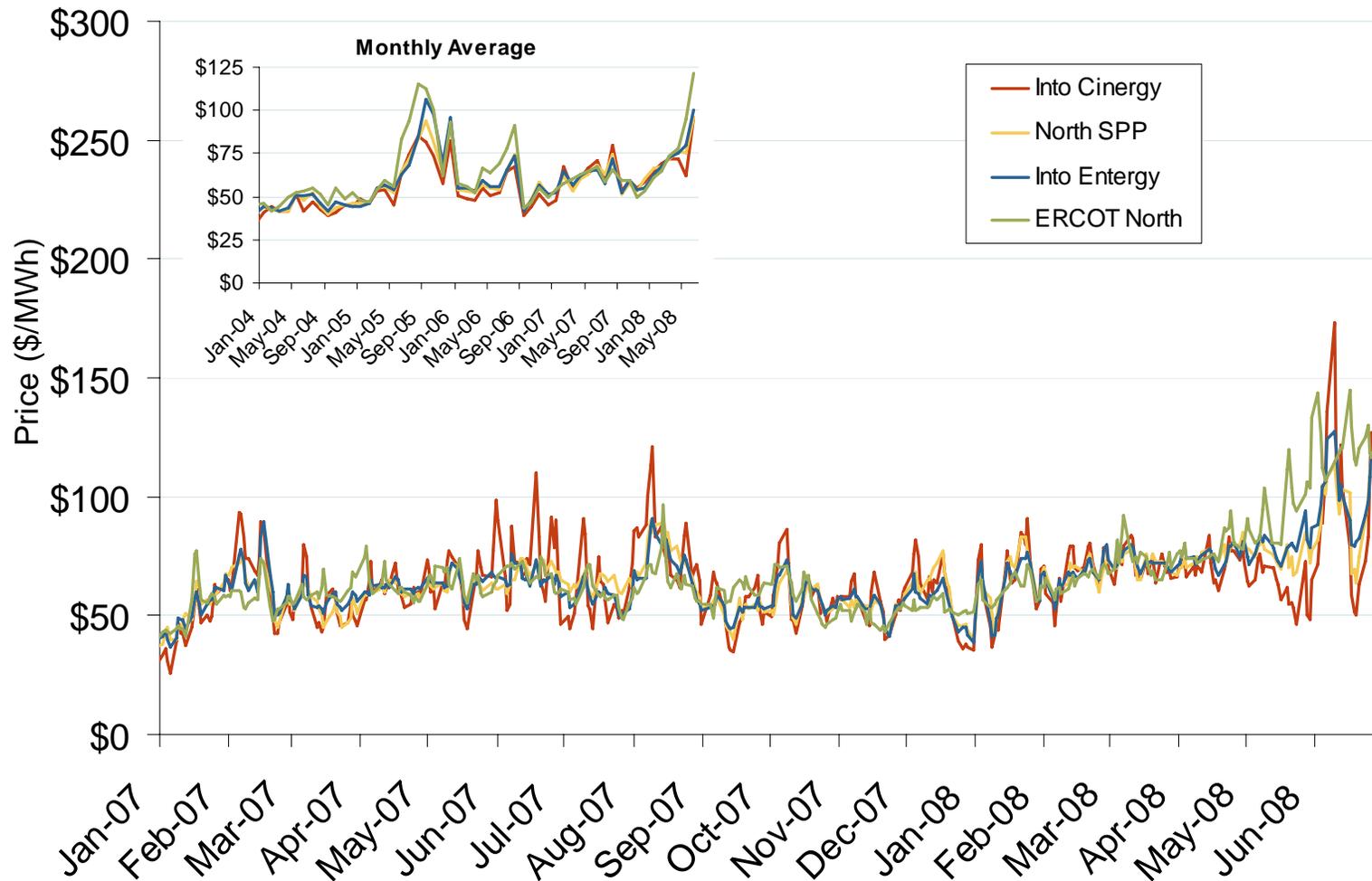


Source: Derived from SPP data.

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Midwestern Daily Bilateral Day-Ahead On-Peak Prices



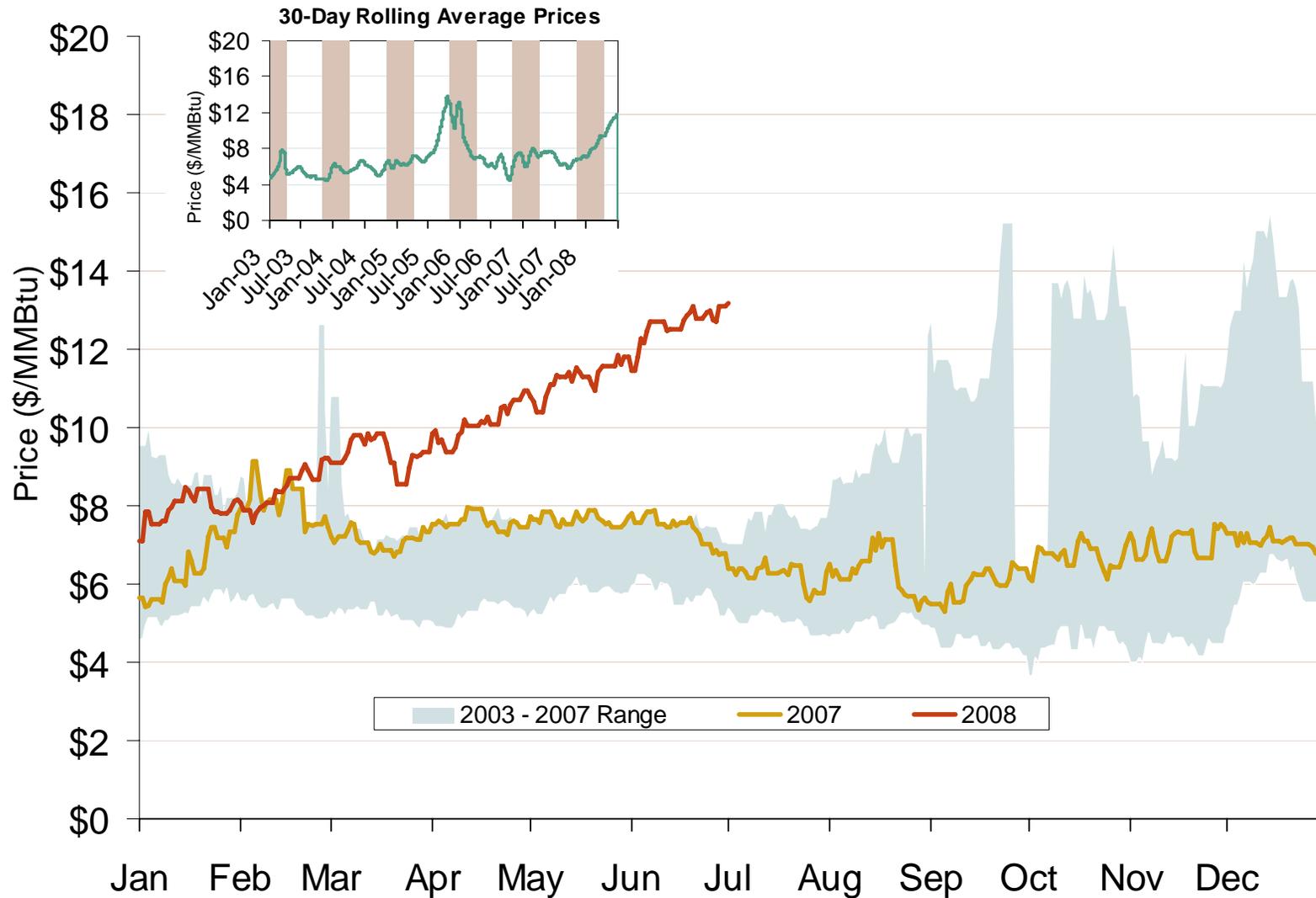
Source: Derived from *Platts* data.

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Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

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

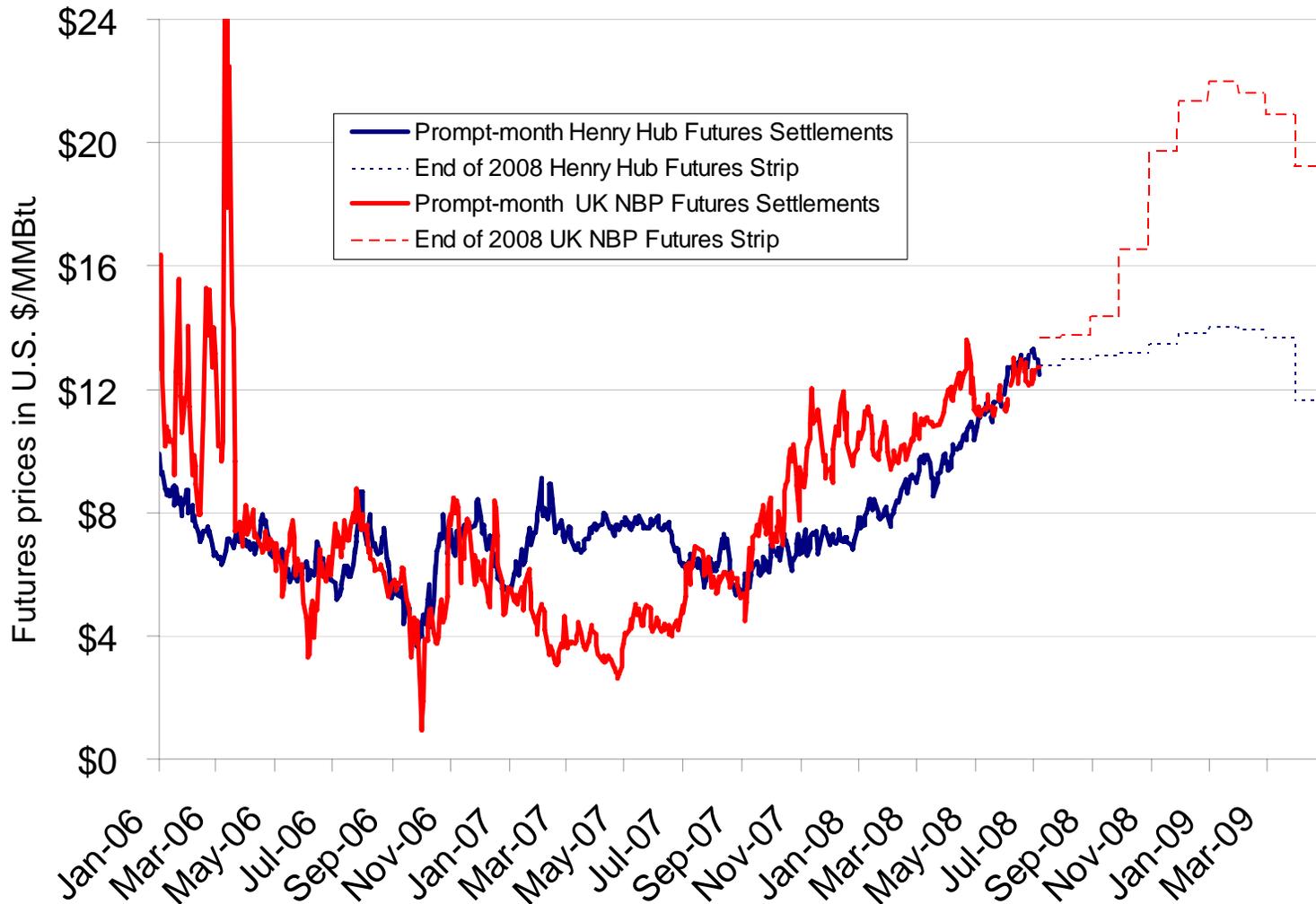


Source: Derived from *Platts* data.

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2085

US and UK Gas Futures Prices



Source: Derived from NYMEX and ICE data.

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2177

Henry Hub and AECO Prompt-Month Futures Prices

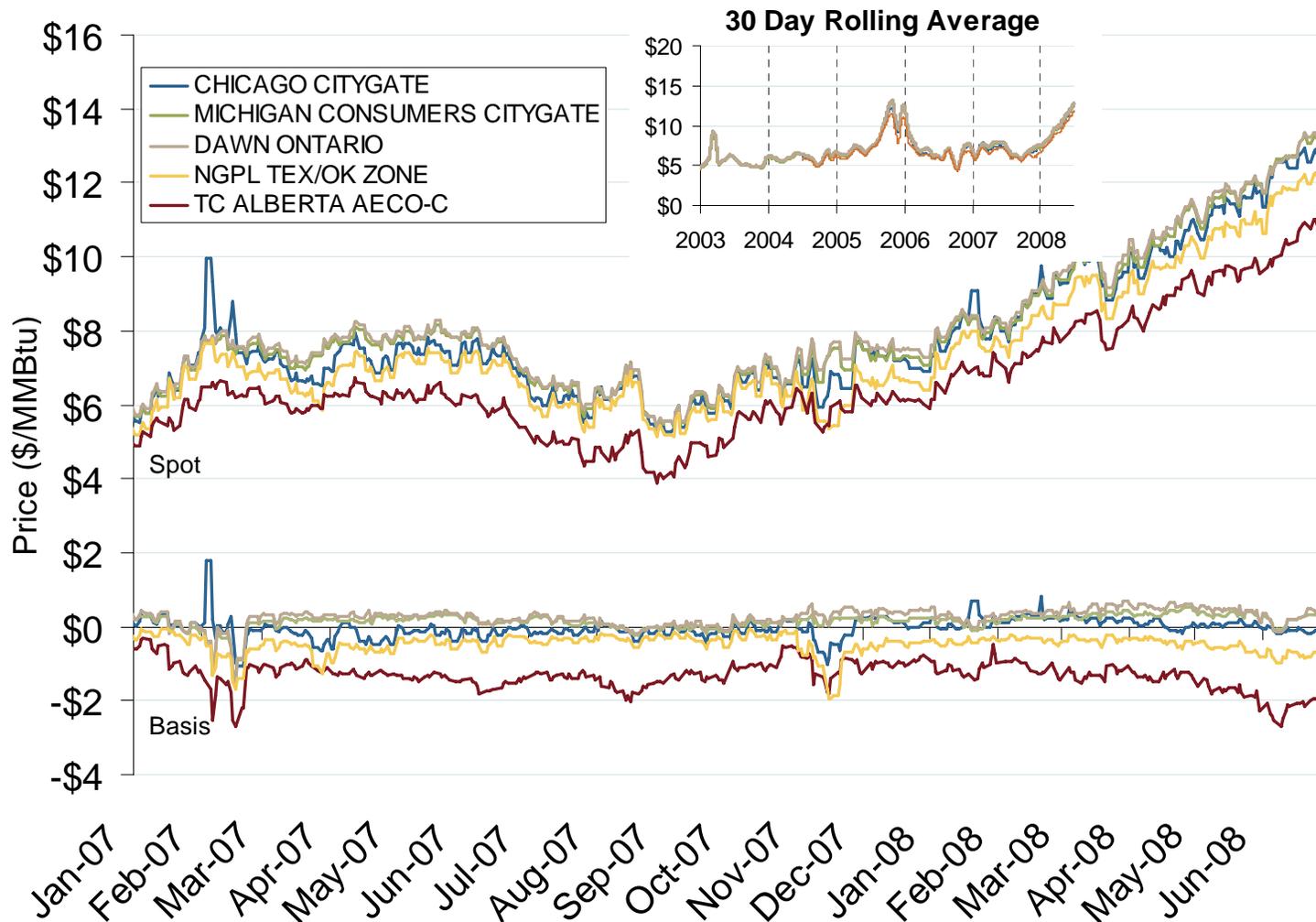


Source: Derived from ICE data.

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2172

Midwestern Day-Ahead Hub Spot Prices and Basis

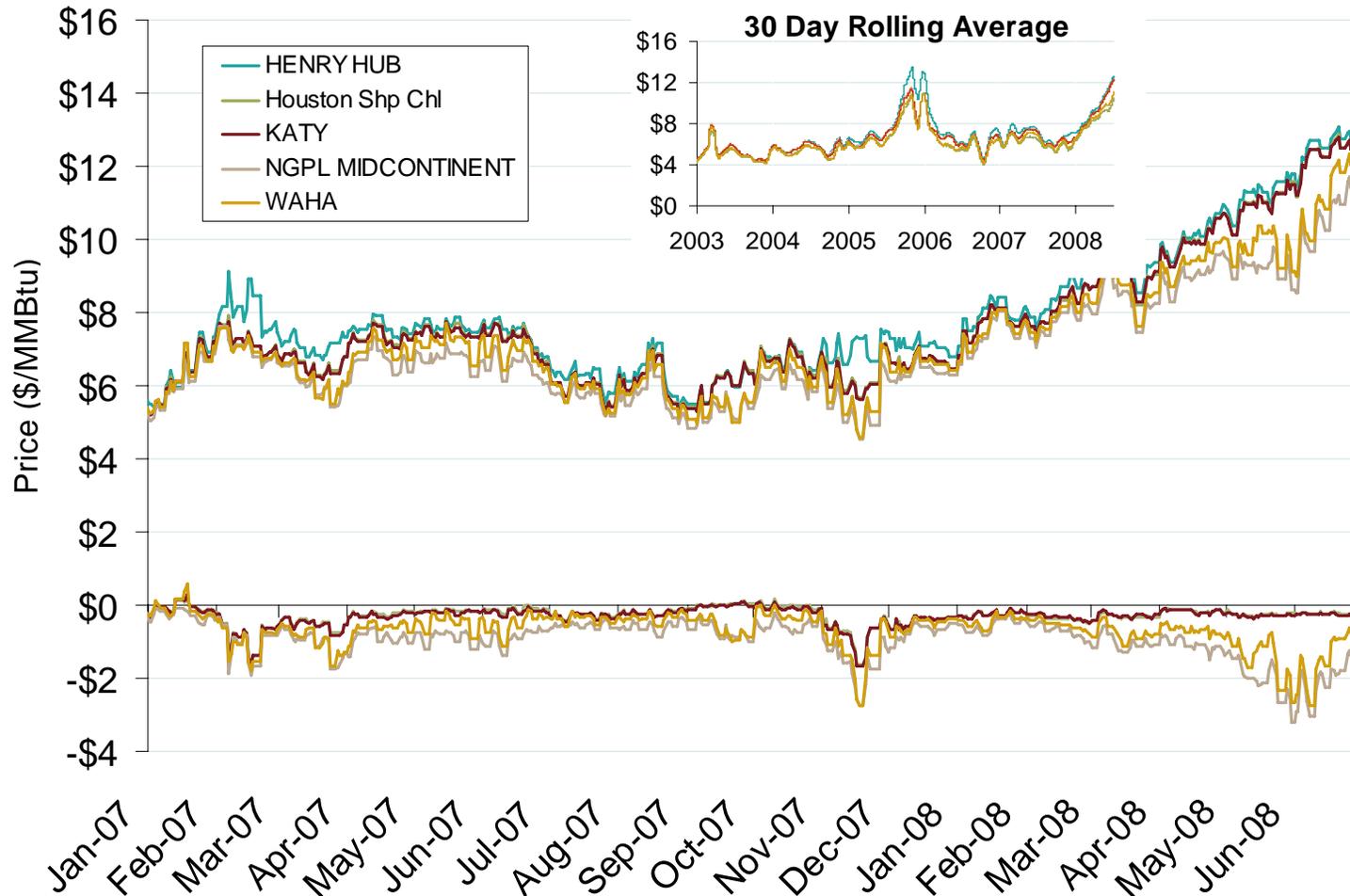


Source: Derived from *Platts* data.

Updated July 9, 2008

2016

South Central Day-Ahead Hub Spot Prices and Basis

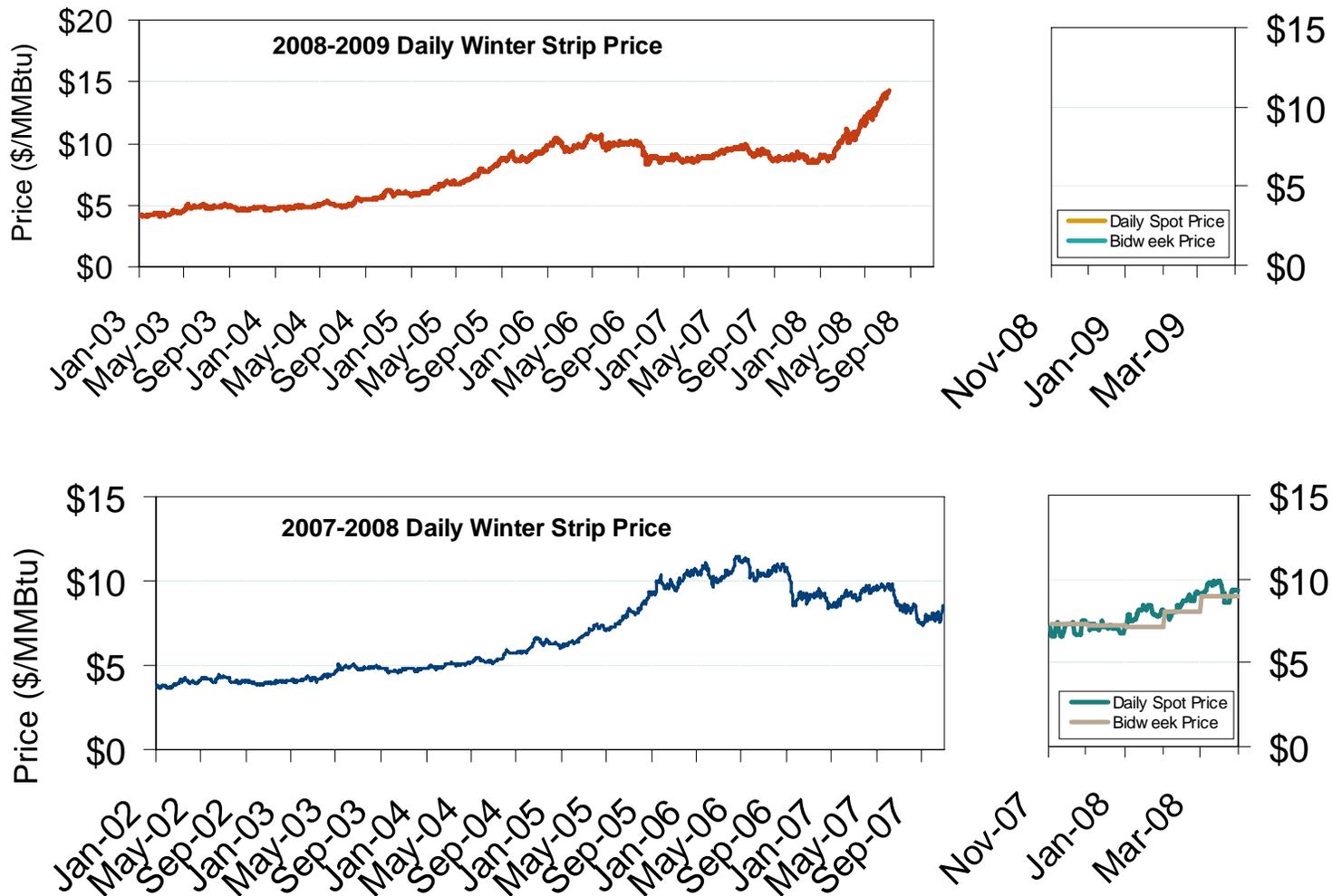


Source: Derived from *Platts* data.

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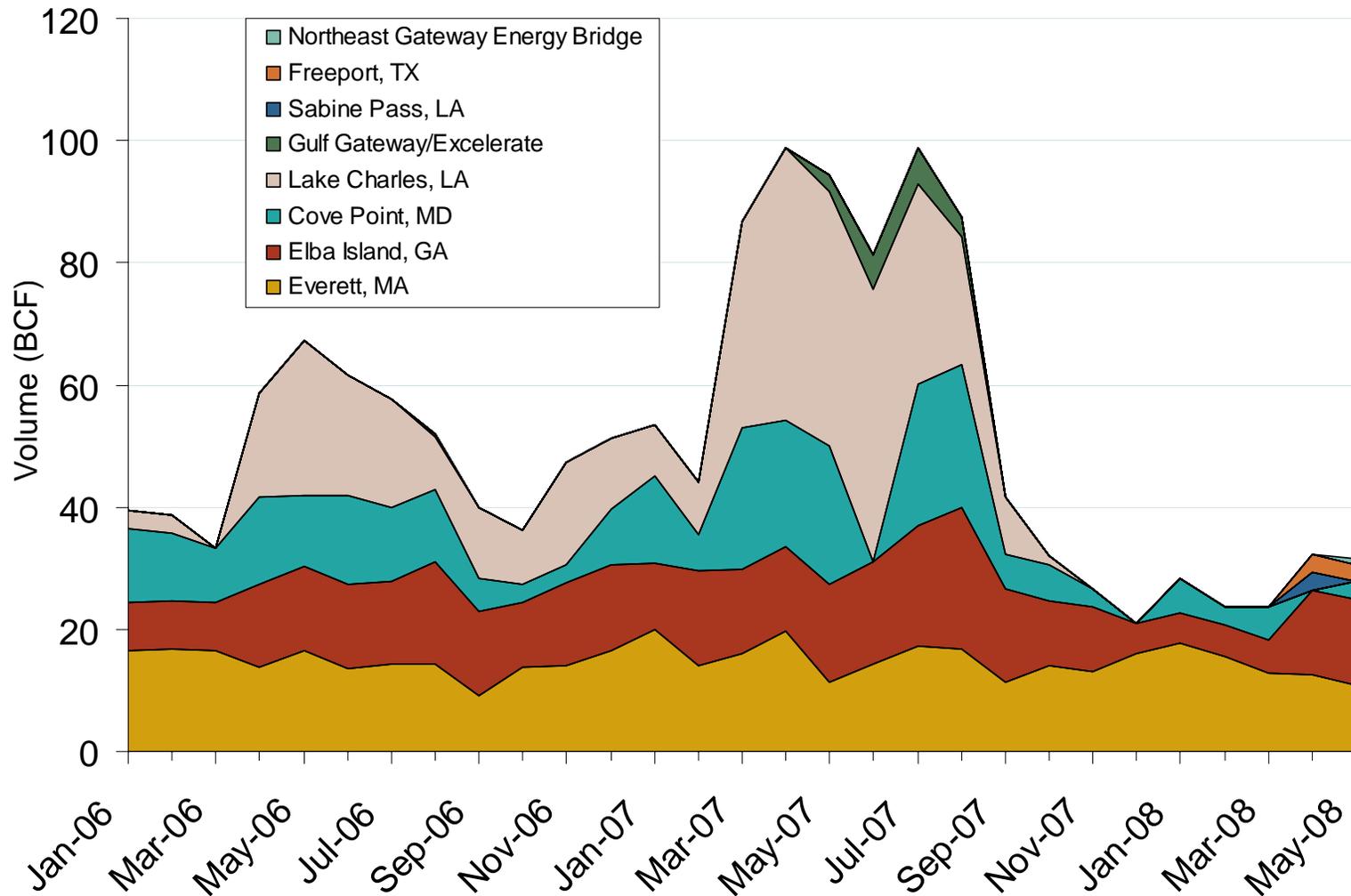
Natural Gas Winter Futures Strip and Daily Henry Hub Spot and Bidweek Prices



Source: Derived from *Platts* and *Nymex* data.

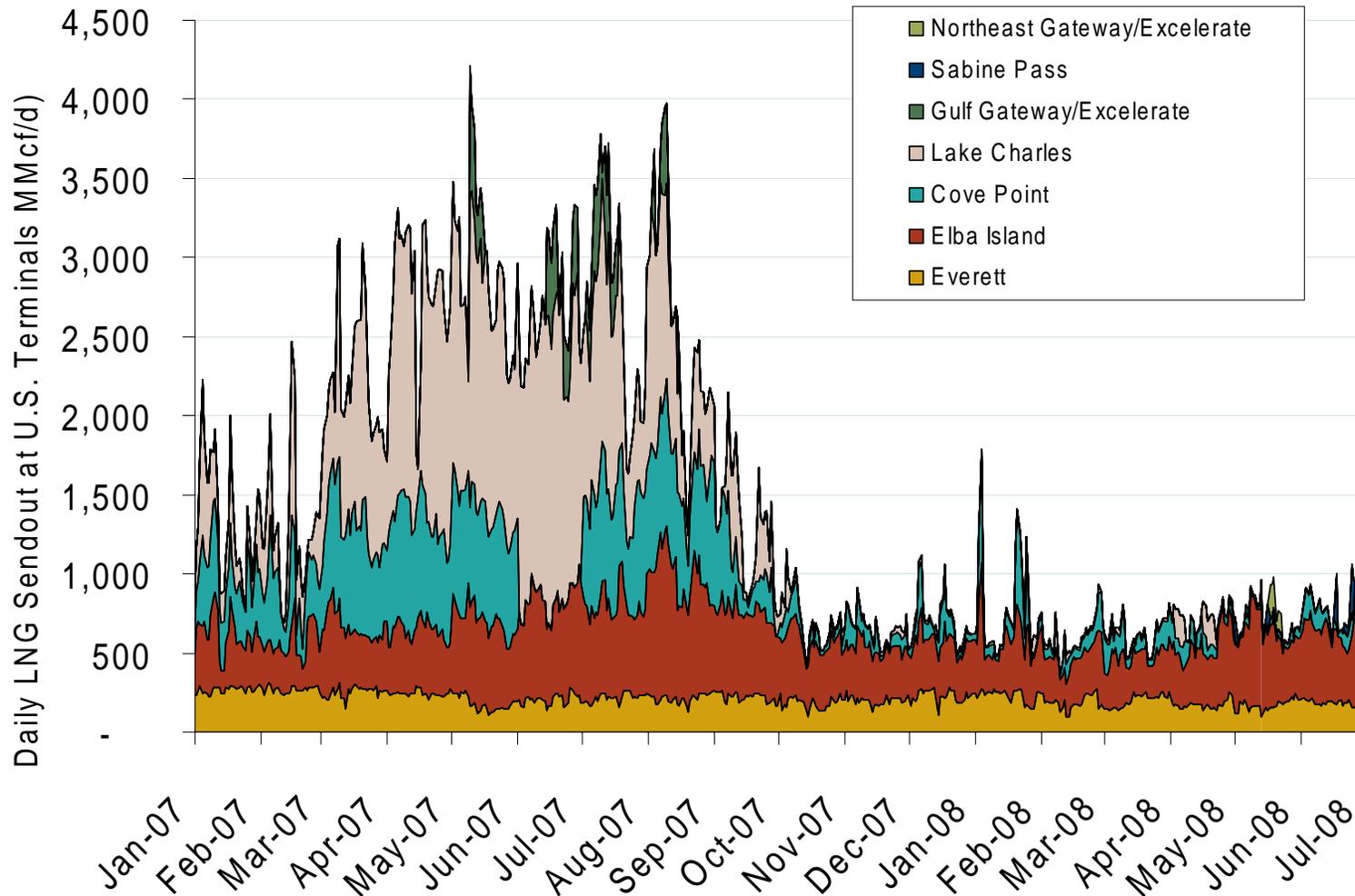
Updated July 9, 2008

Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data.

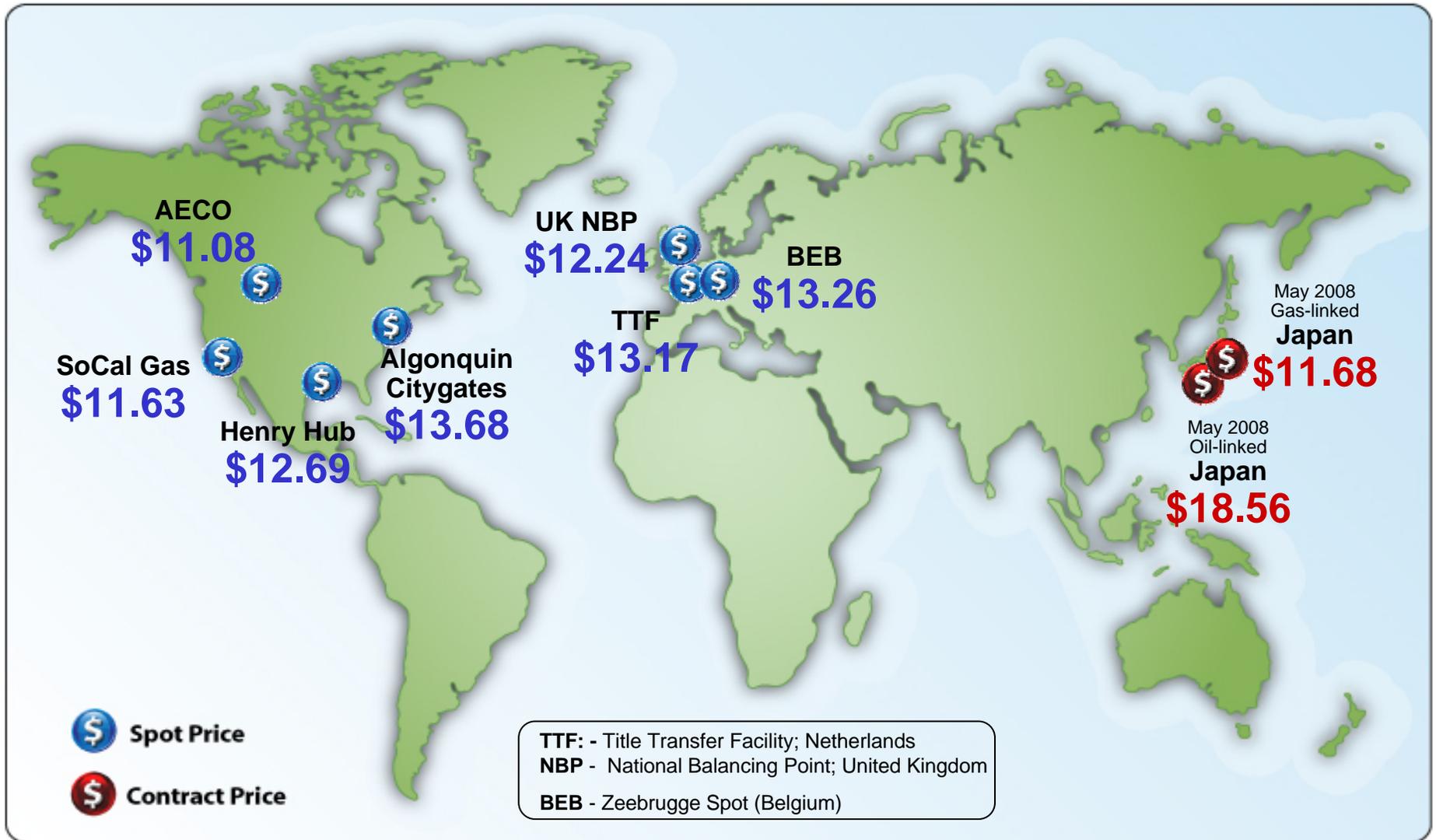
Daily Gas Sendout from Existing U.S. LNG Facilities



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.

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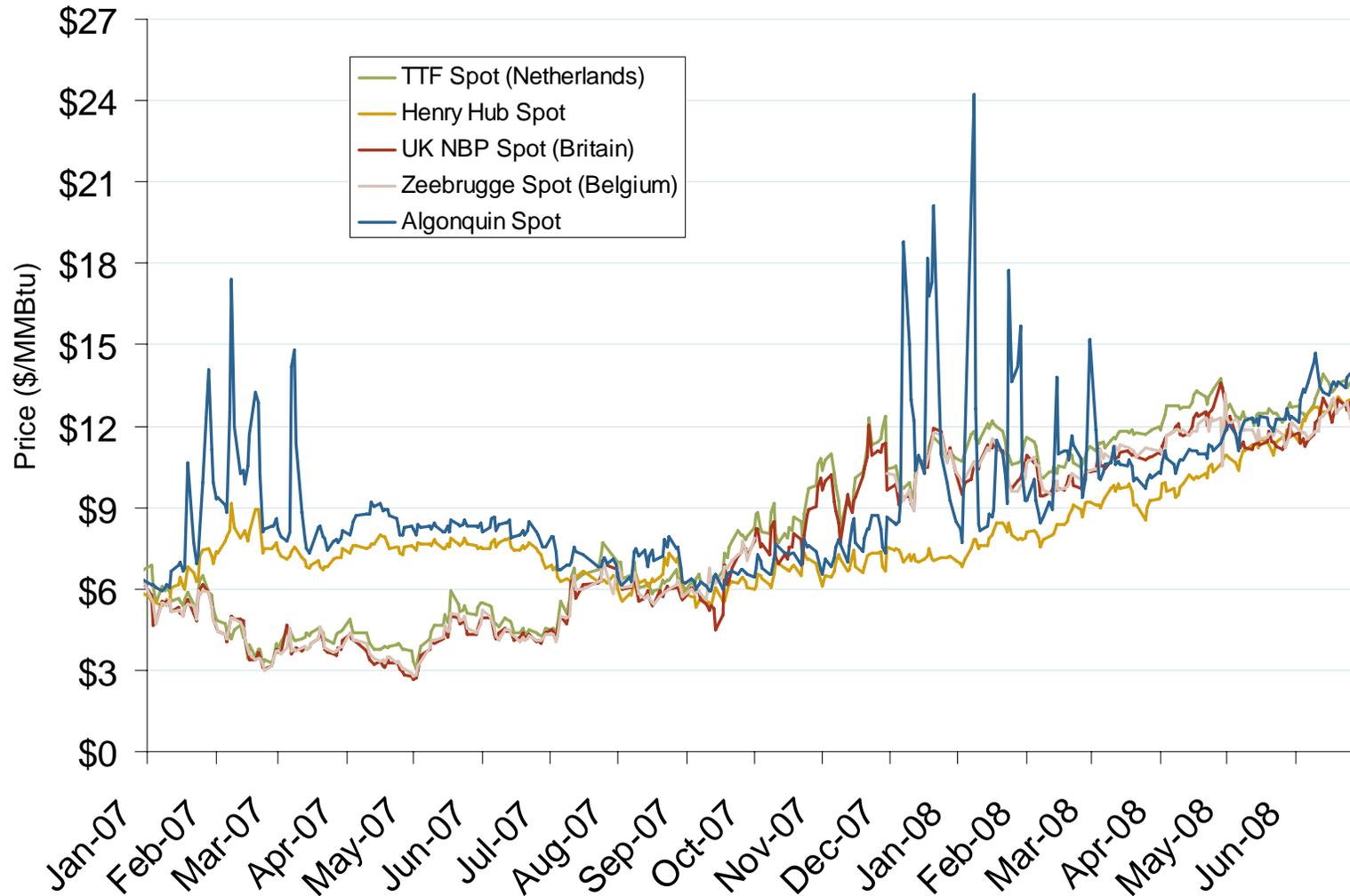
World Natural Gas Prices for June 2008



Source: Derived from *Bloomberg, ICE, ICAP and LNG Japan Corp.* data. Spot Price is a monthly average of daily prices. Contract Price is a monthly price. All prices in \$US/MMBtu.

Updated July 9, 2008

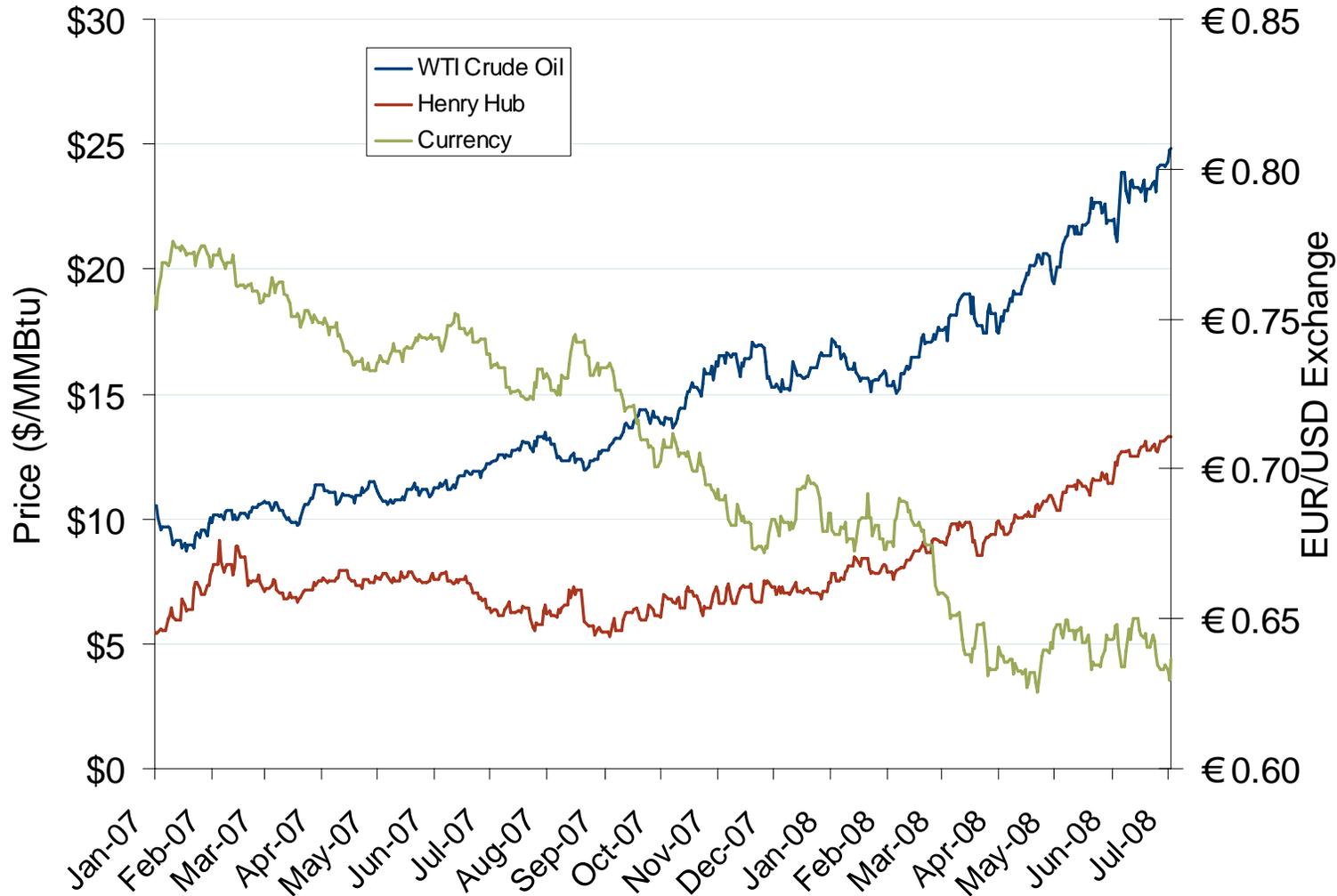
Atlantic Basin European and US Spot Natural Gas Prices



Source: Derived from *Bloomberg* and *ICE* data.

Updated July 9, 2008

Oil, Natural Gas and Currency Spot Prices

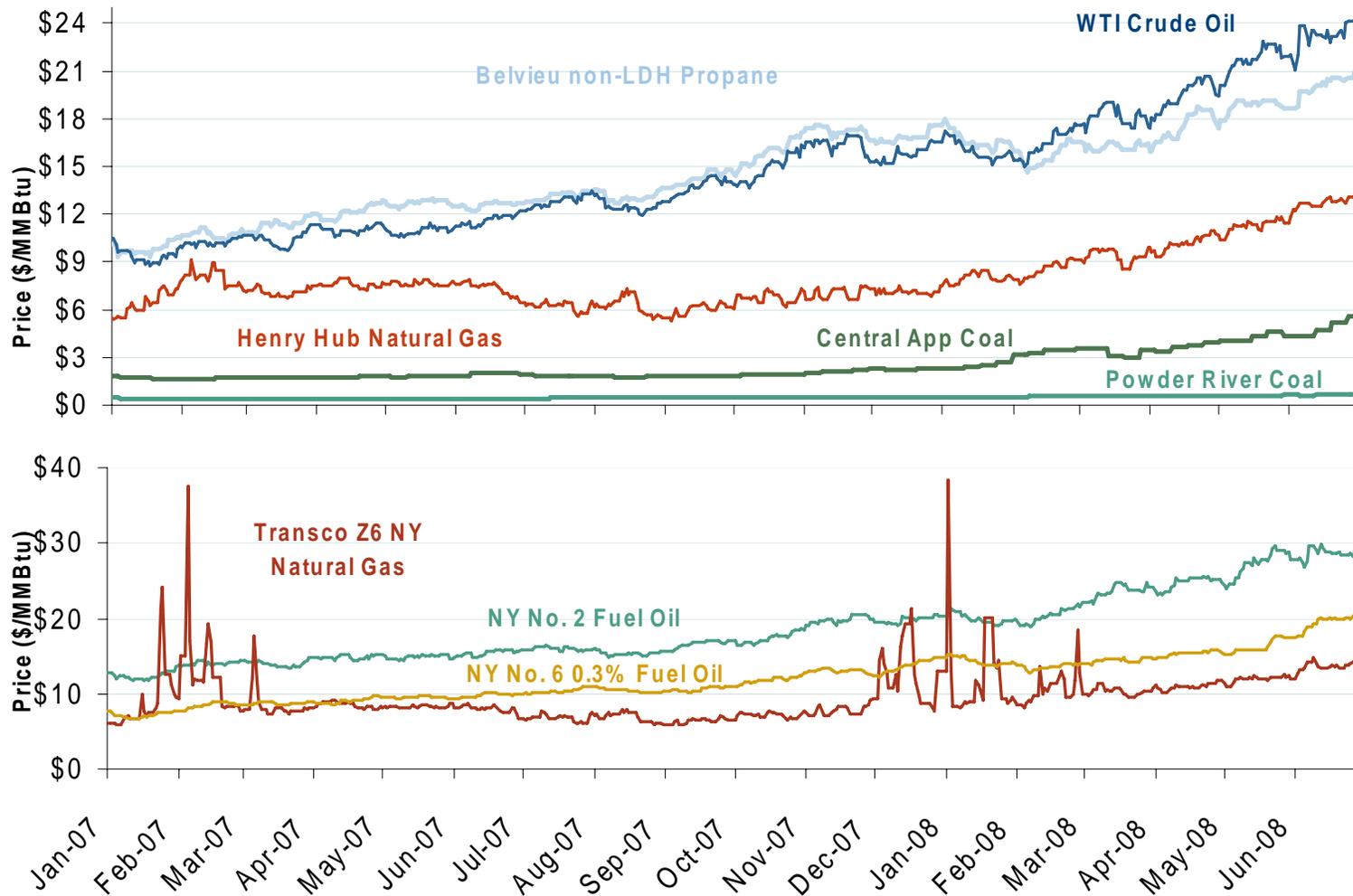


Source: Derived from *Bloomberg* data.

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Oil, Coal, Natural Gas and Propane Daily Spot Prices

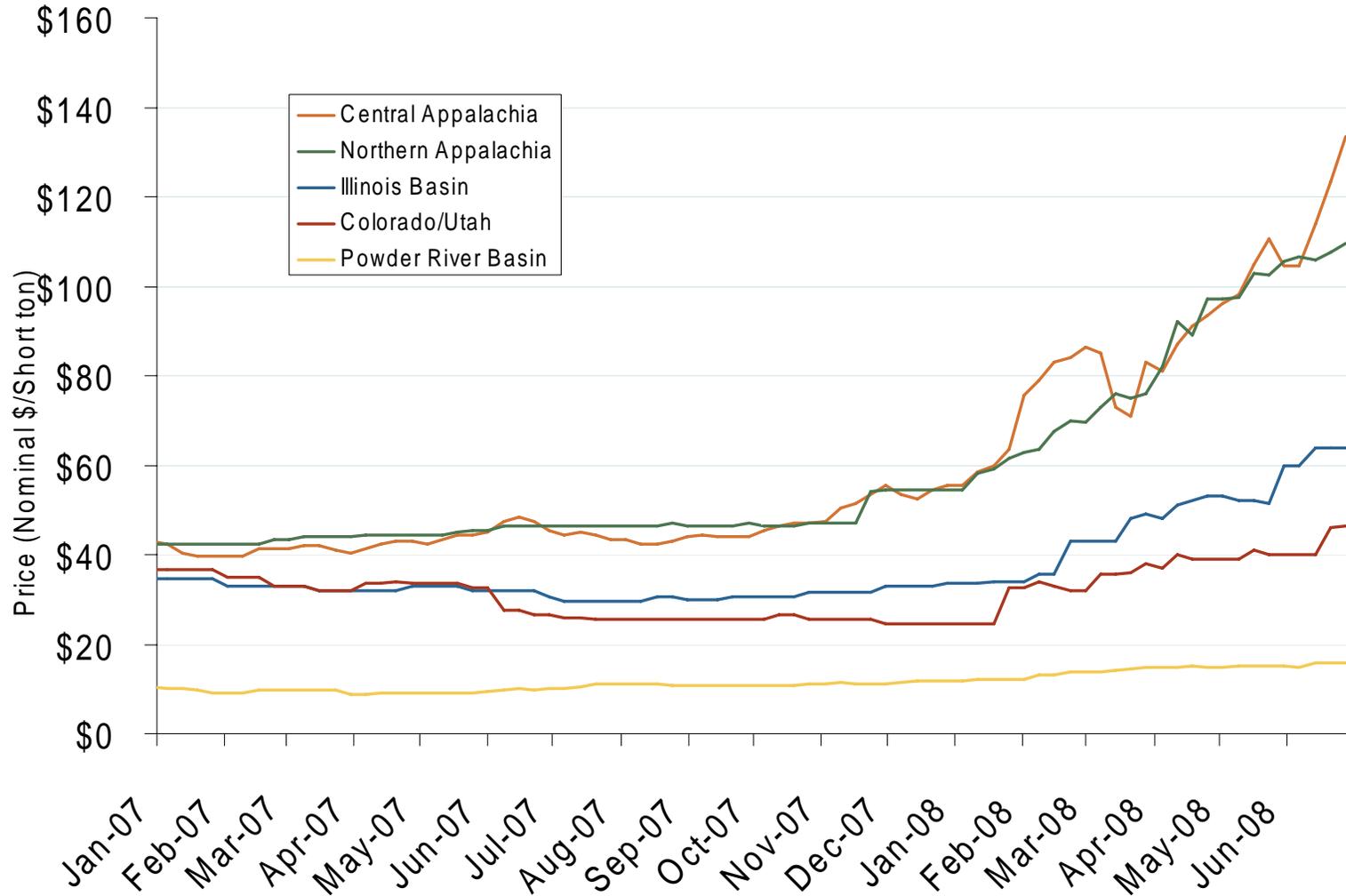


Source: Derived from ICE and Bloomberg data.

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 July 14, 2008

Regional Coal Spot Prices

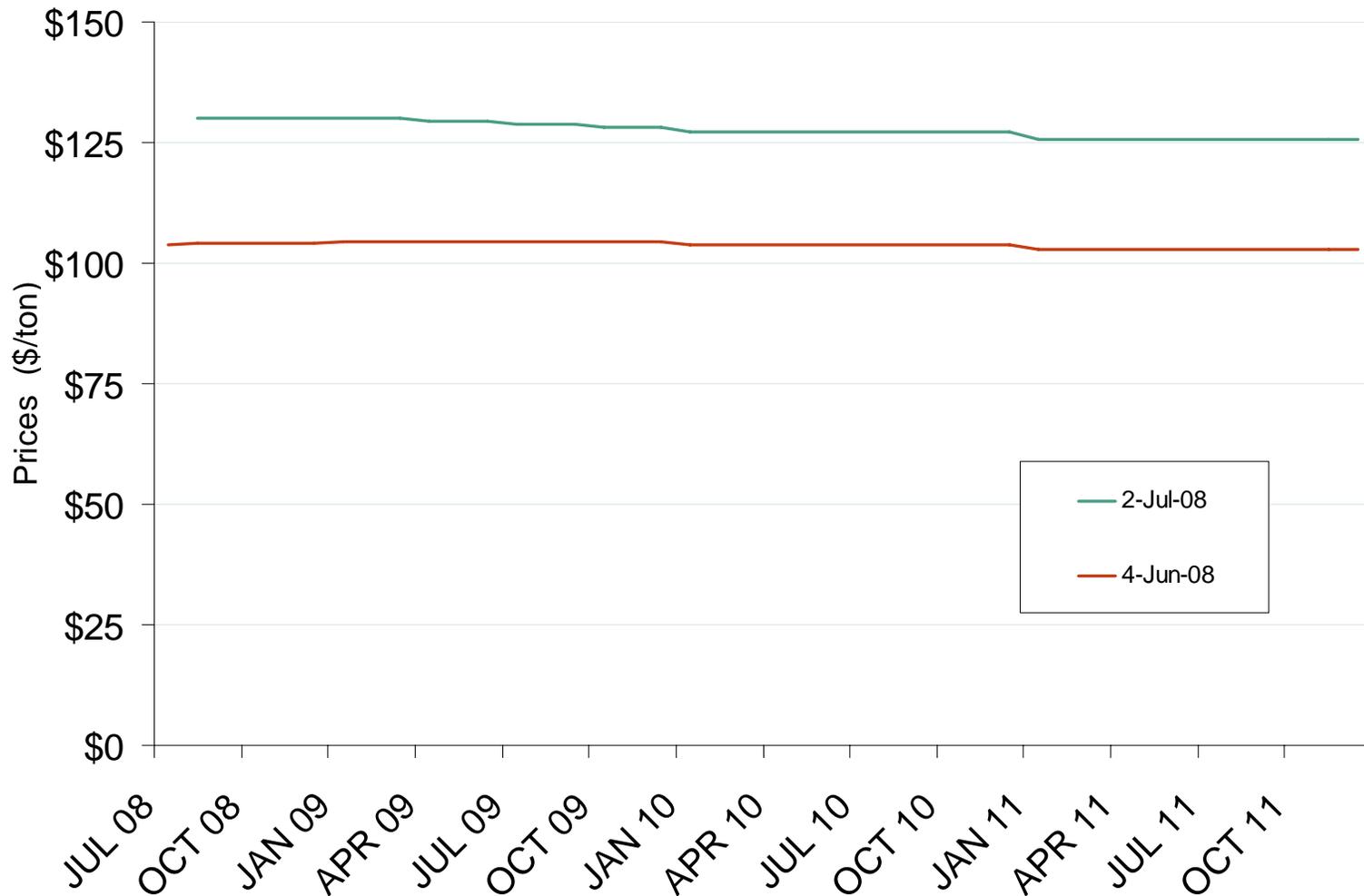


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

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Central Appalachian Coal Futures Prices

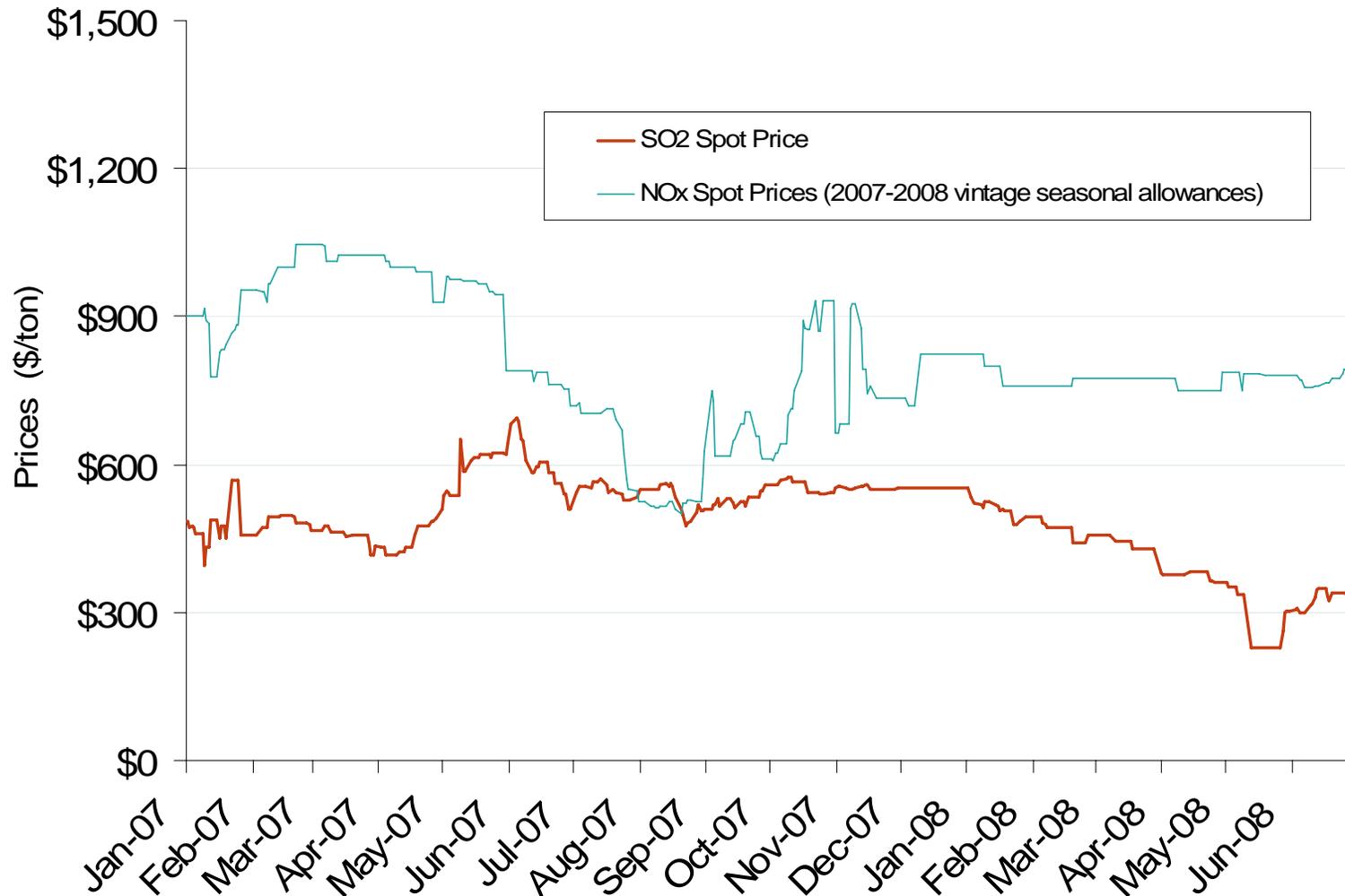


Source: Derived from Nymex data.

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3003

SO₂ Allowance Spot Prices and NOx Seasonal Allowance Spot Prices



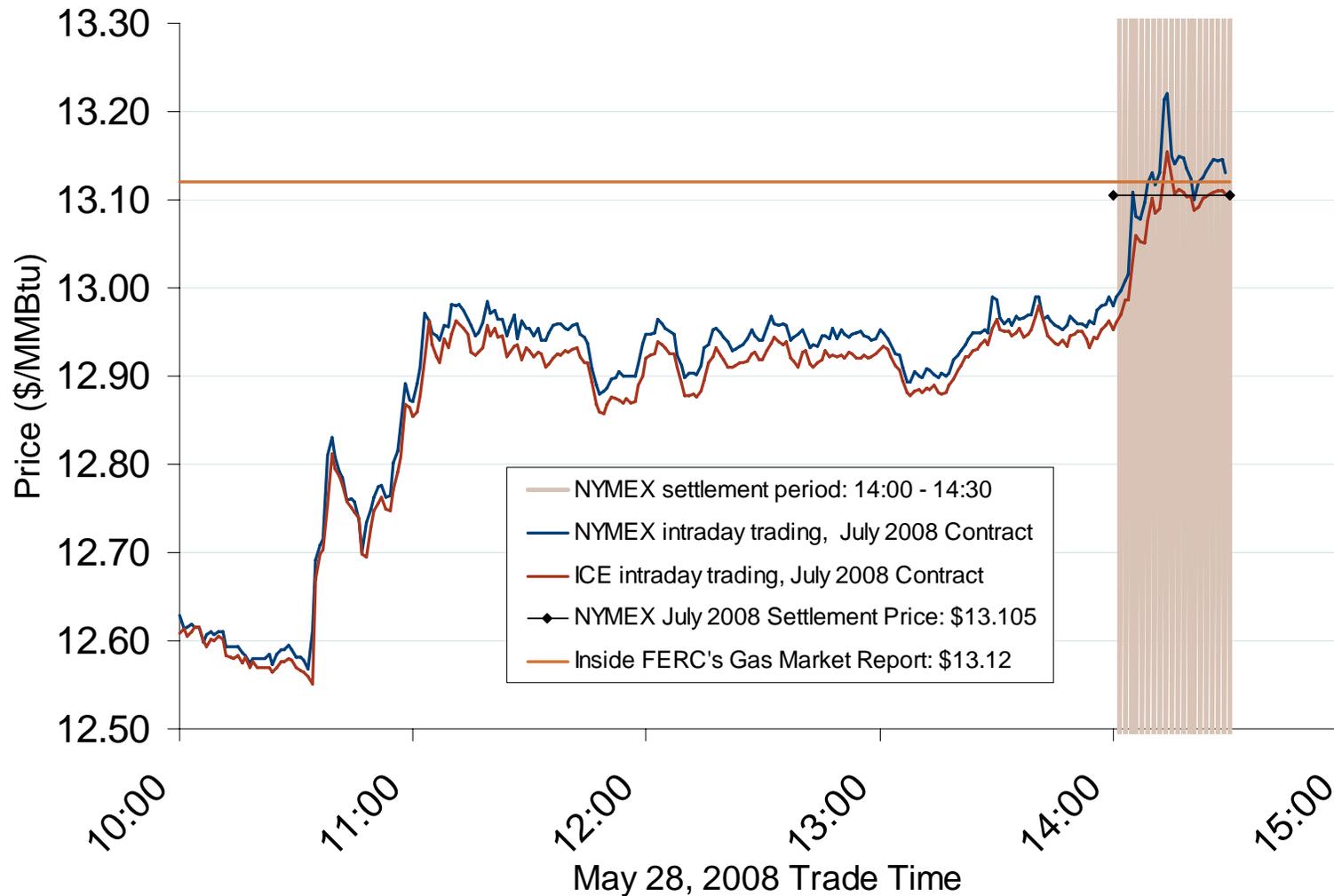
Source: Derived from Cantor Fitzgerald data.

See notes on following pages.

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July 2008 NYMEX and ICE Contract Final Settlement Day

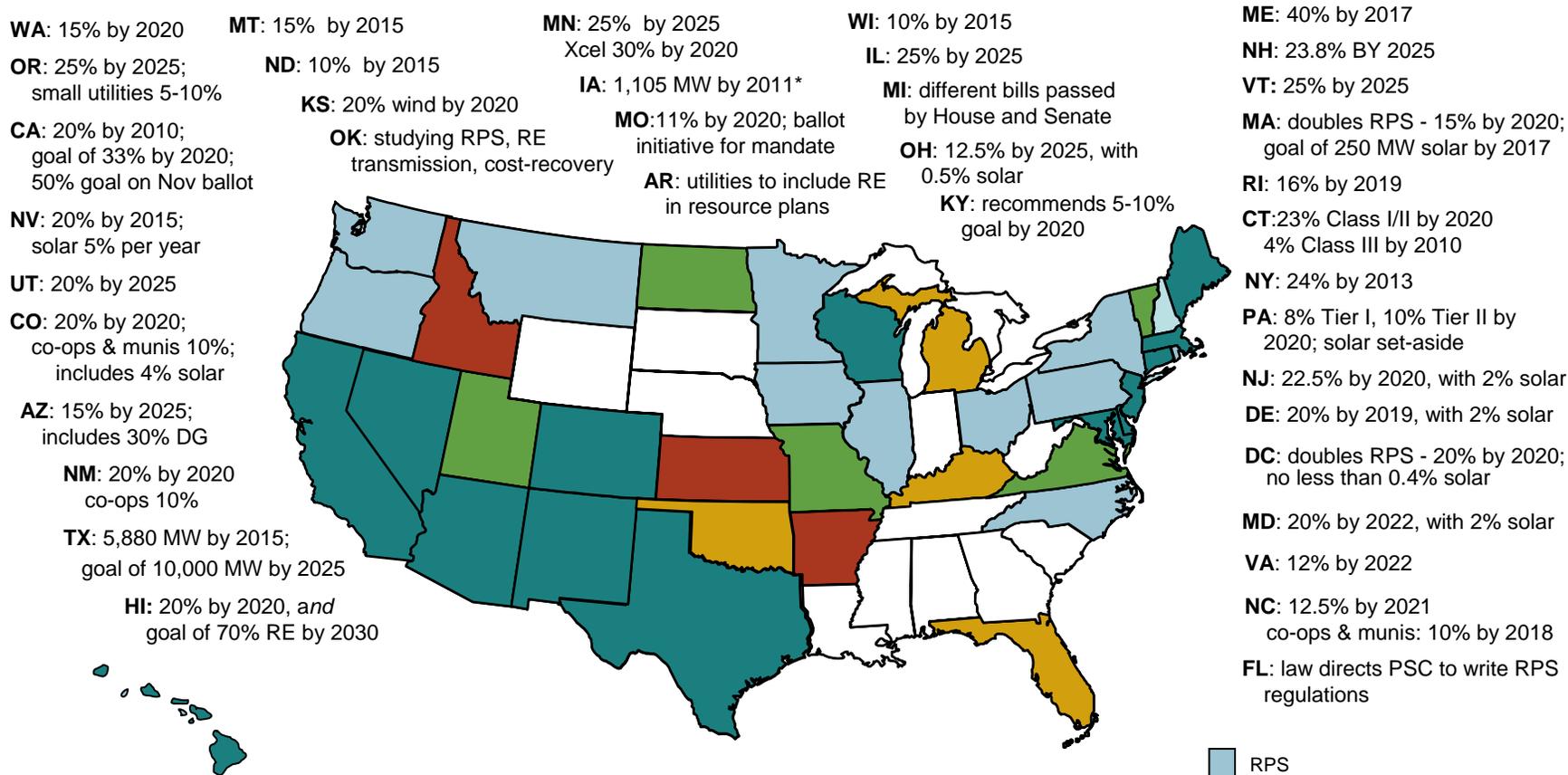


Source: Derived from Nymex and ICE data.

Updated July 2, 2008

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Renewable Energy Portfolio Standards (RPS)

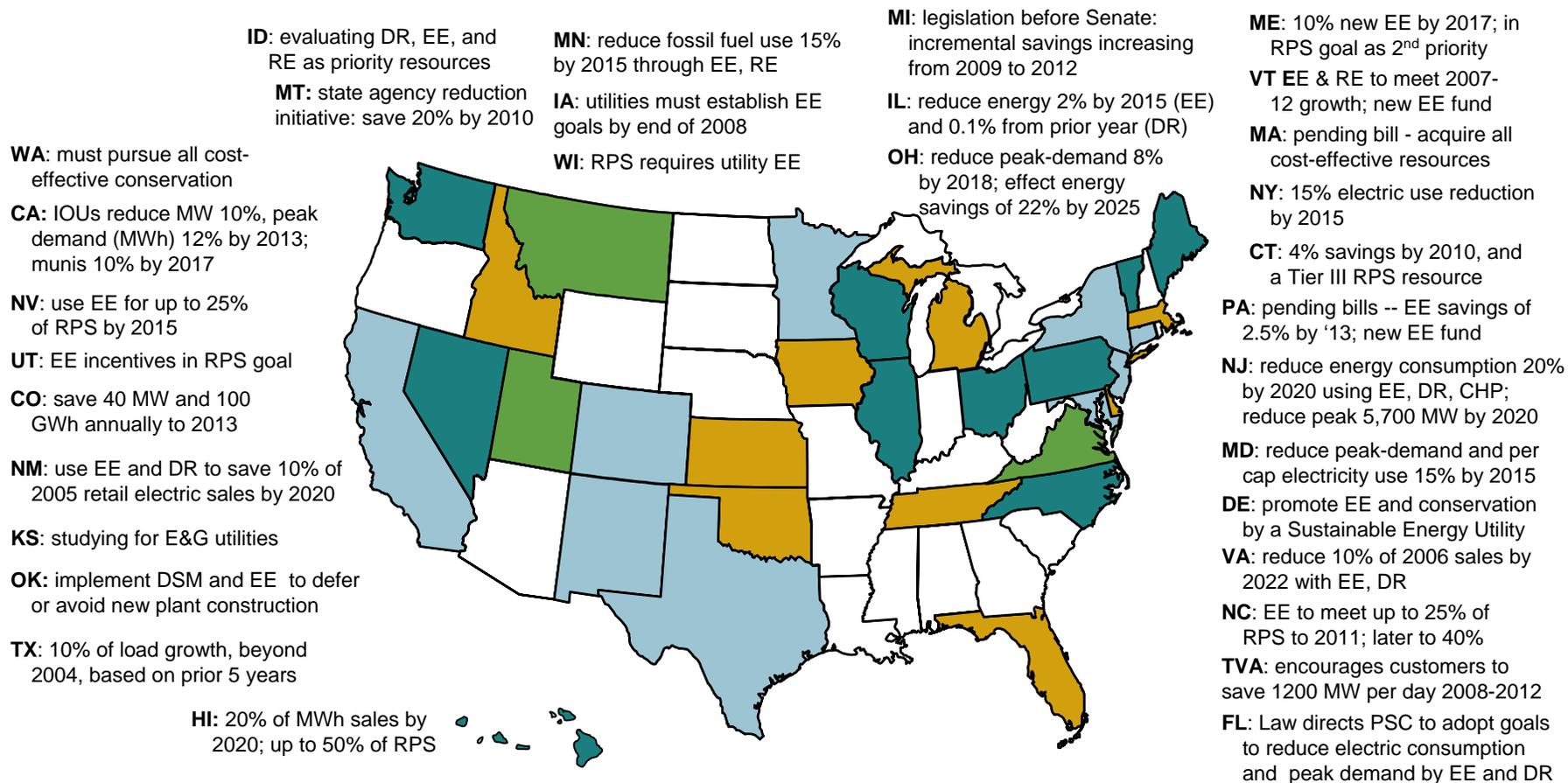


Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rps.pdf>

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.

Updated July 17, 2008

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; EE - energy efficiency; E&G: electric and gas utilities; RPS: Renewable Portfolio Standard
Sources: ACEEE, EPA, Regulatory Assistance Project, Union of Concerned Scientists, State legislative sites, trade press

- EERS by regulation or law (separate from RPS)
- Energy efficiency part of an RPS rule or goal
- Voluntary standards (in or out of RPS)
- Energy efficiency goal proposed / being studied

Updated July 9, 2008