

OE ENERGY MARKET SNAPSHOT

National 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

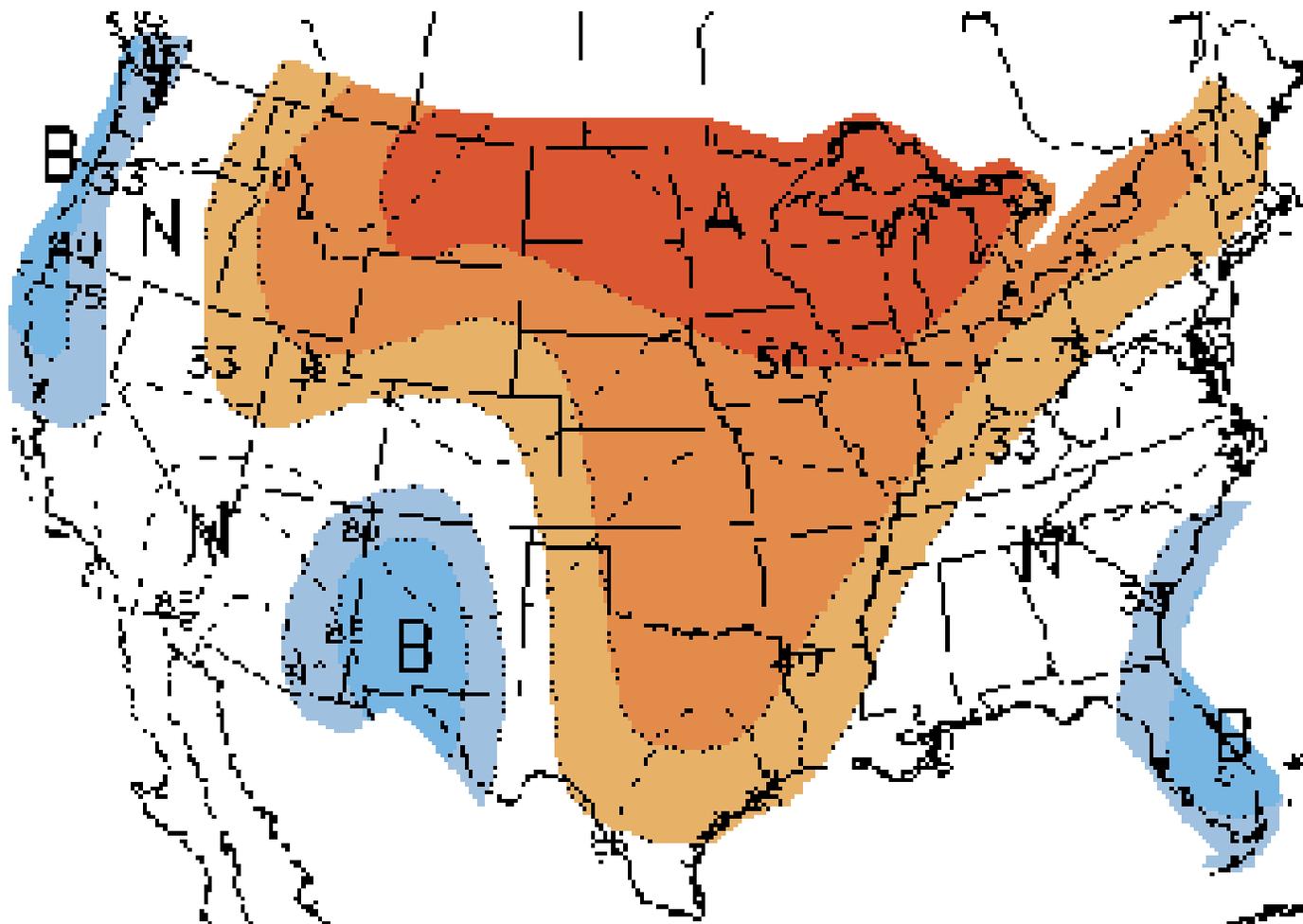
CHARLES WHITMORE
DIVISION OF ENERGY MARKET OVERSIGHT

<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



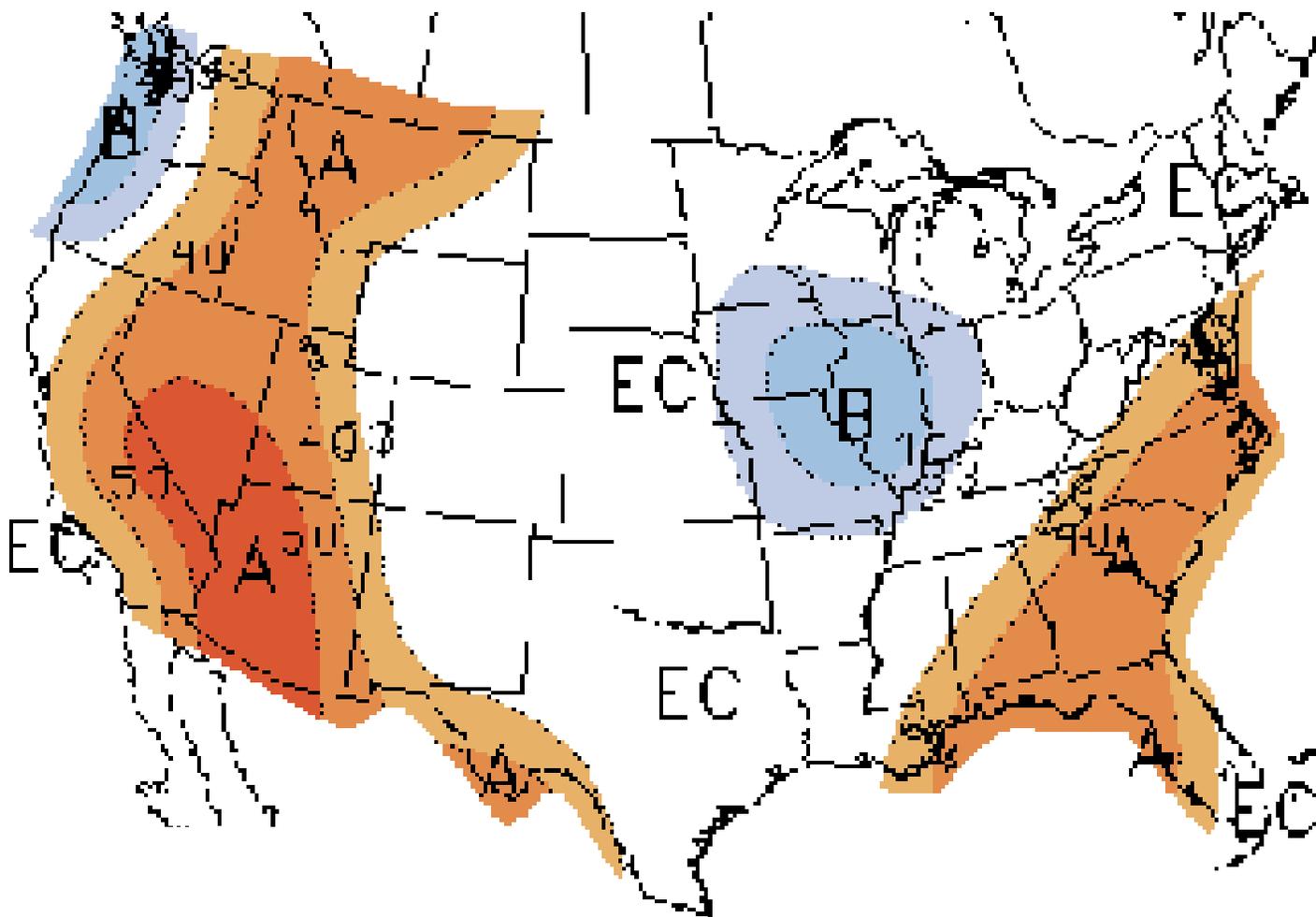
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: NOAA

Updated July 9, 2008

3012

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



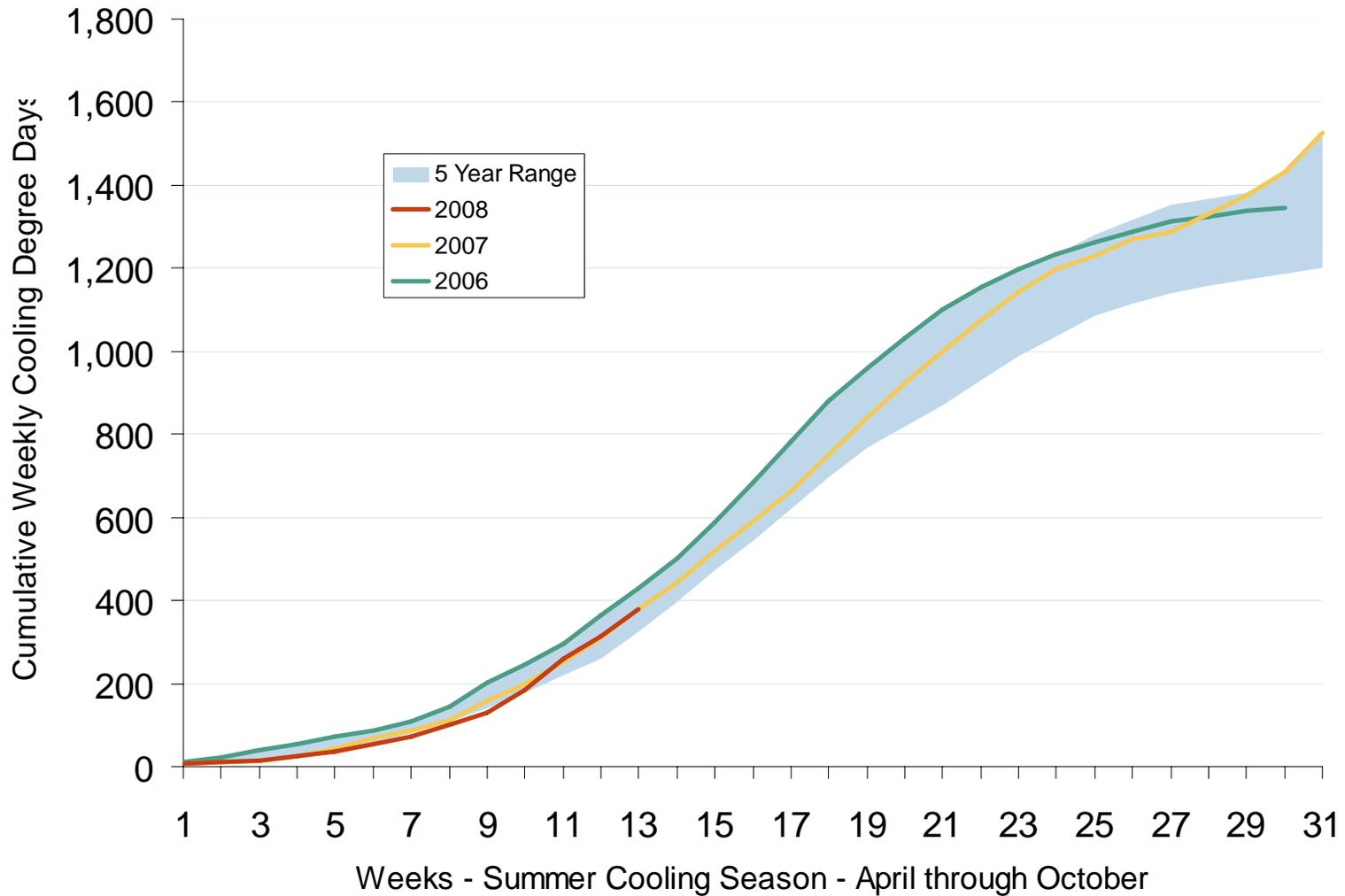
Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal based on the last 30 years of data.

Source: NOAA

Updated July 9, 2008

3012

U. S. Summer Cumulative Cooling Degree Days

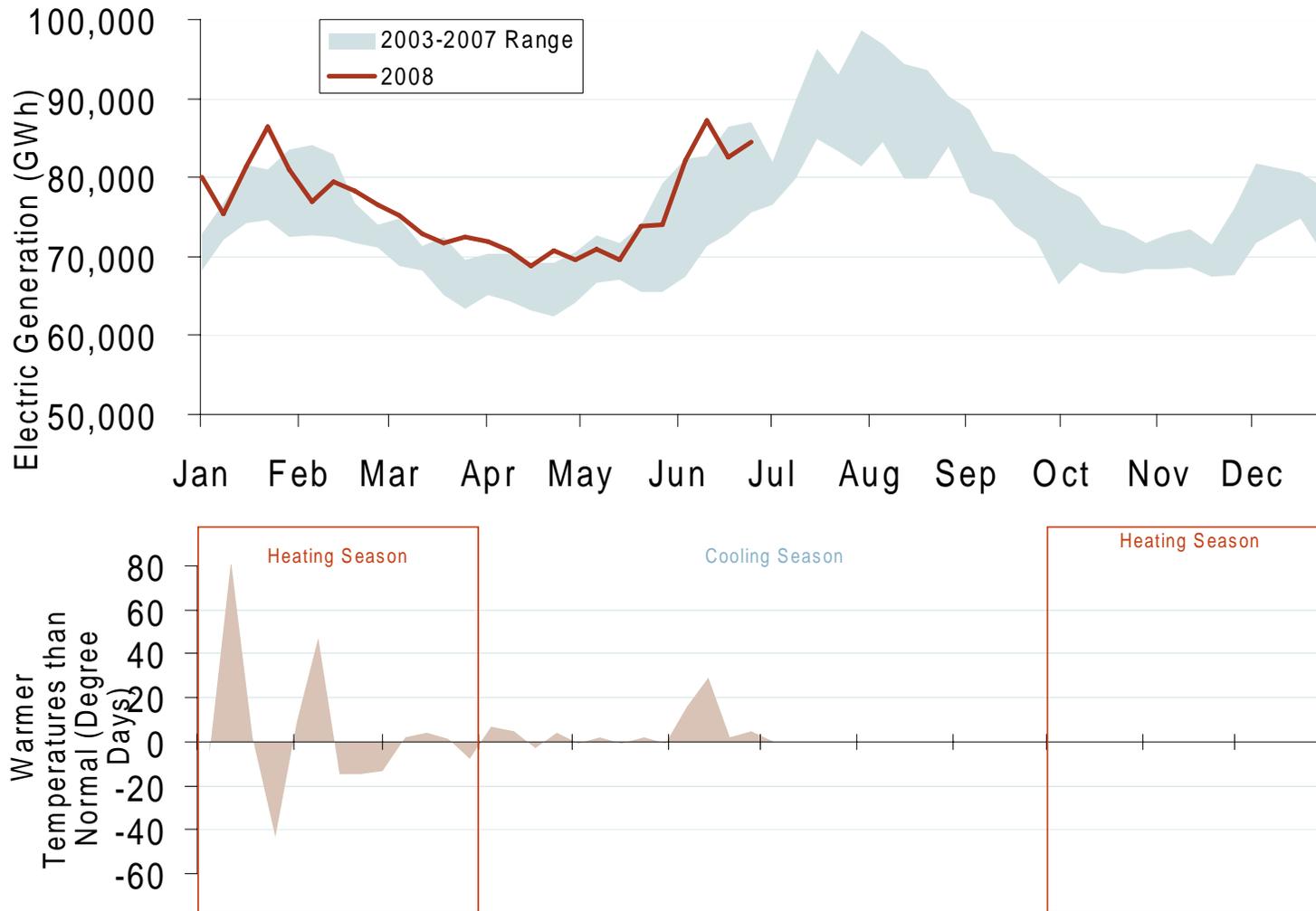


Source: Derived from NOAA data.

Updated July 9, 2008

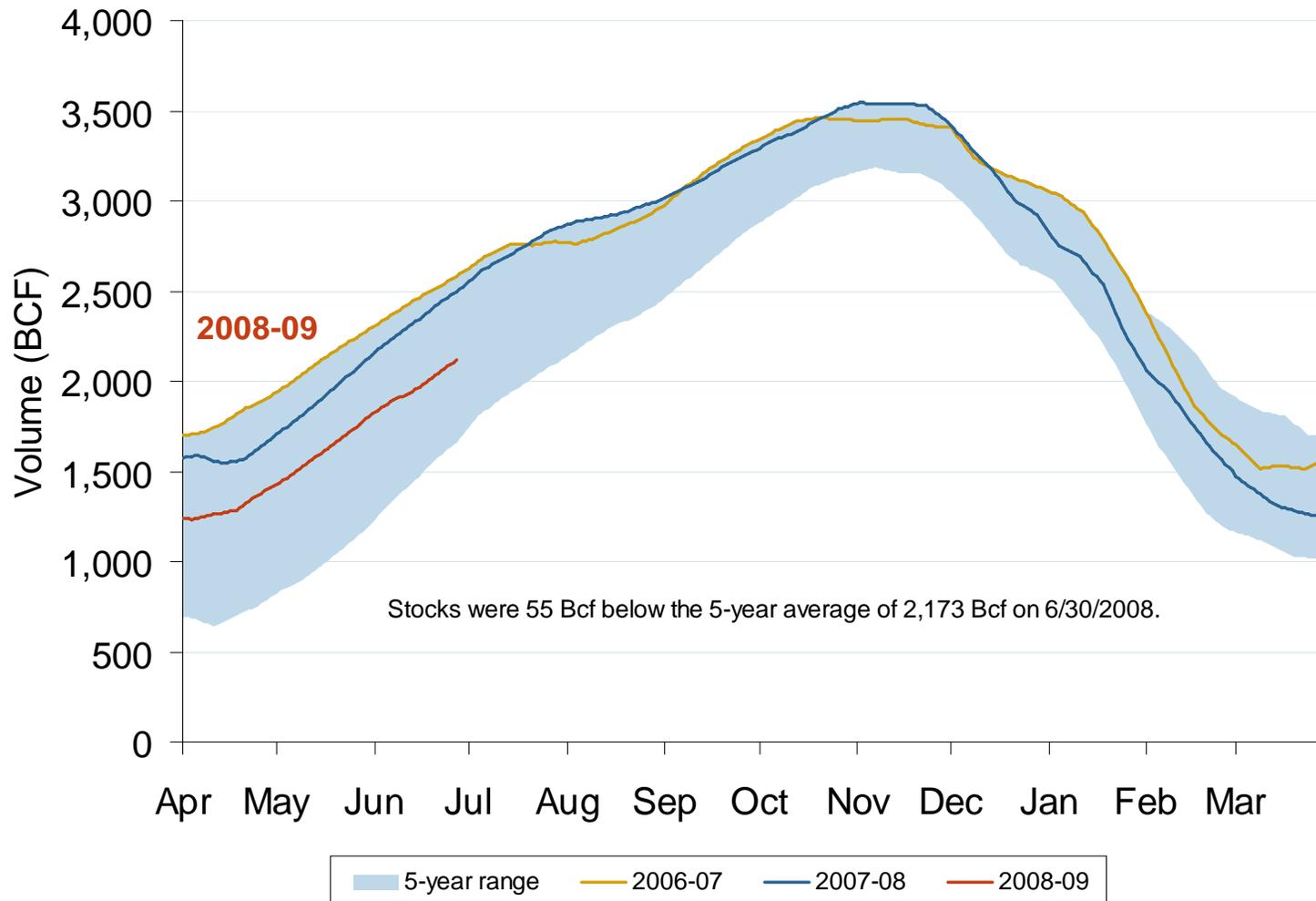
3023

Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from *EI* and NOAA data.

Total U.S. Working Gas in Storage

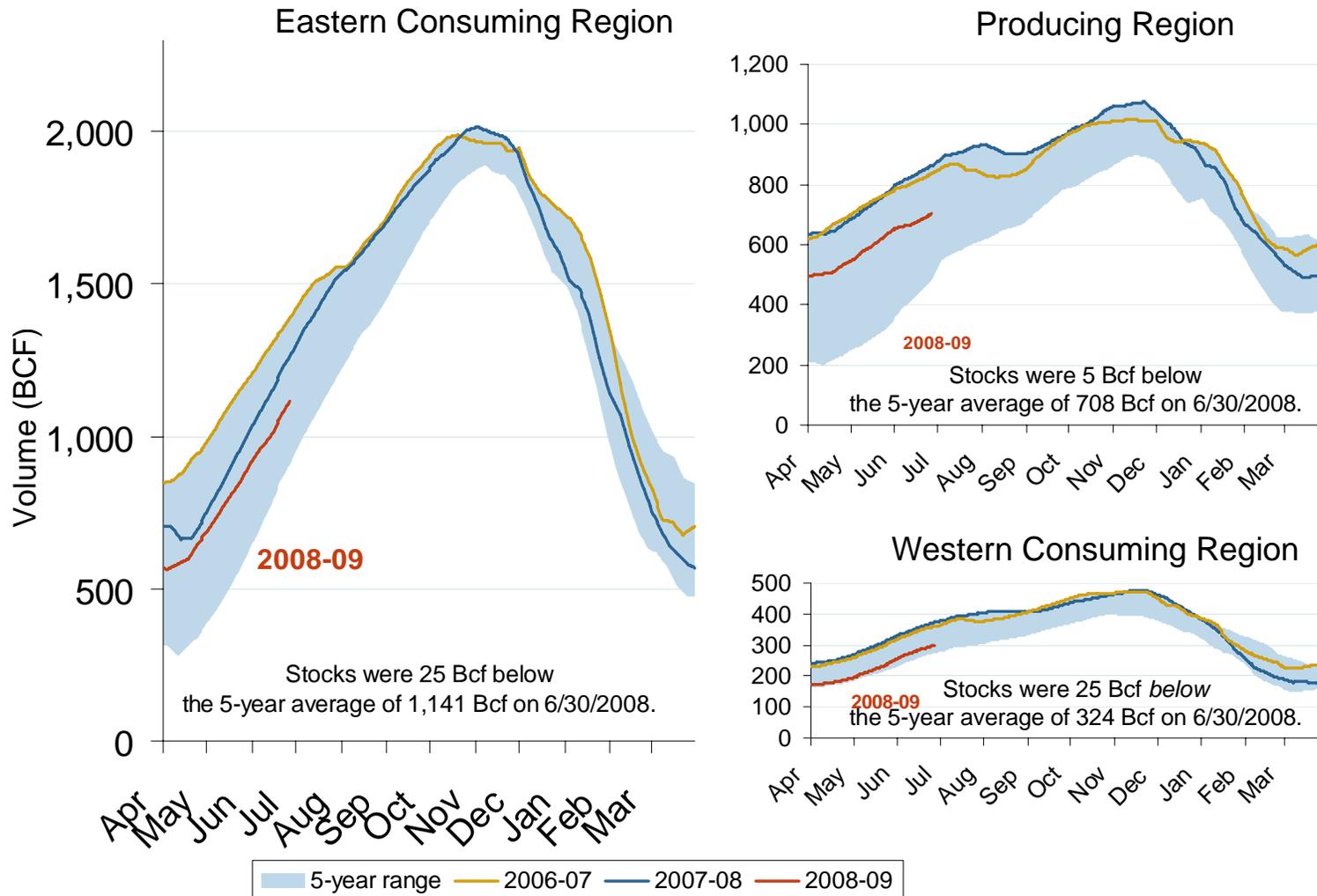


Source: Derived from EIA data.

Updated July 9, 2008

2003

Regional Totals of Working Gas in Storage

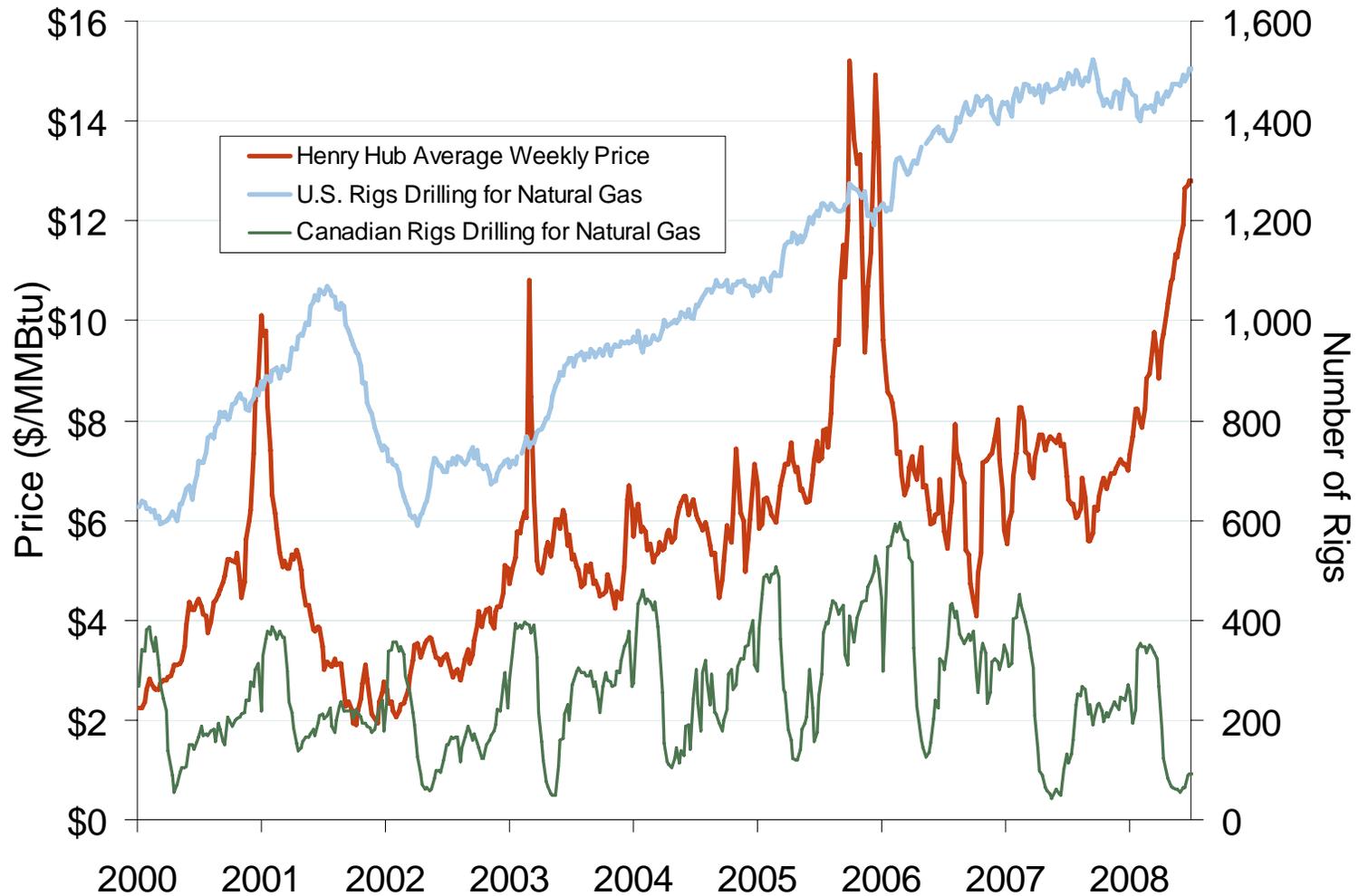


Source: Derived from EIA data.

Updated July 9, 2008

2004

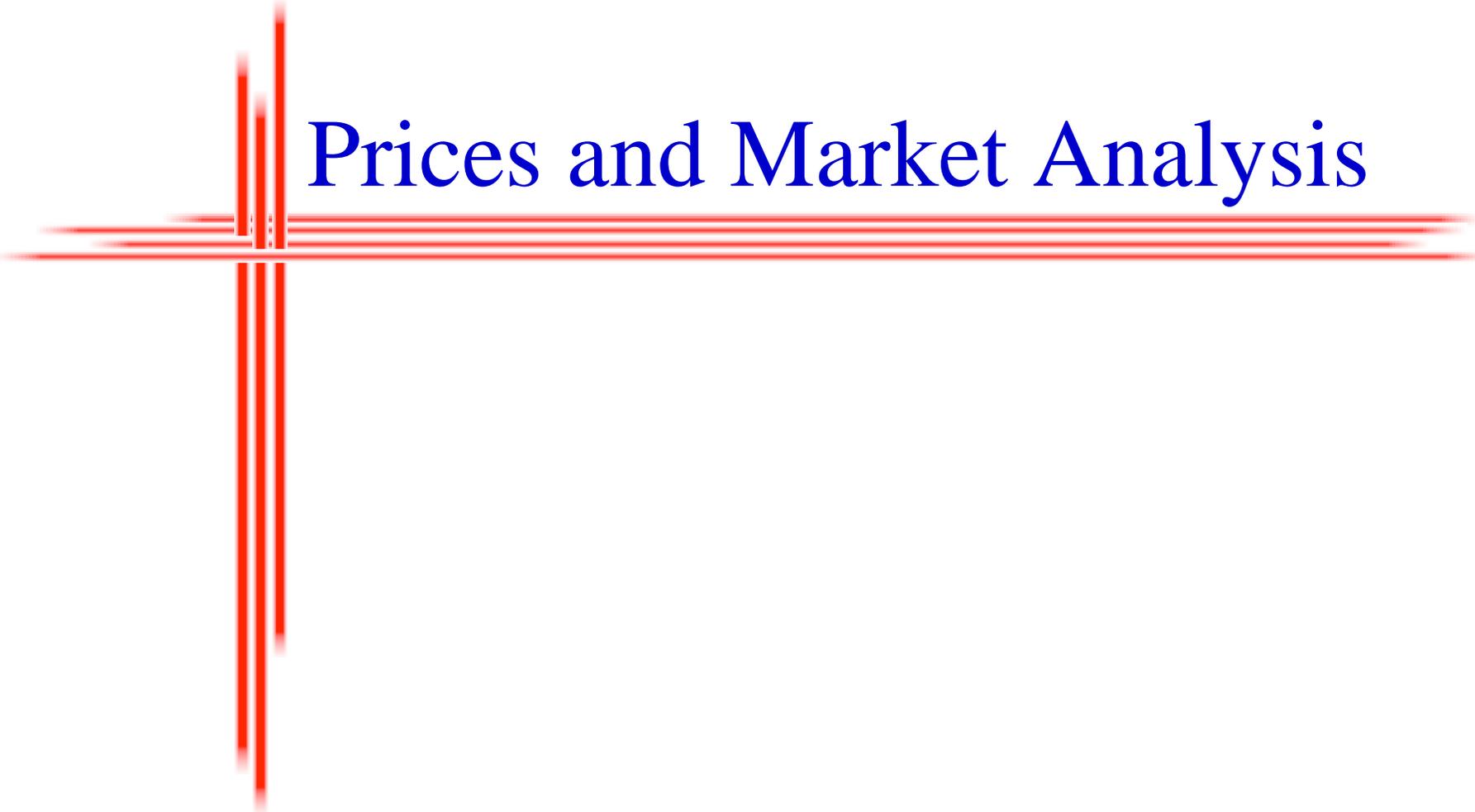
U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

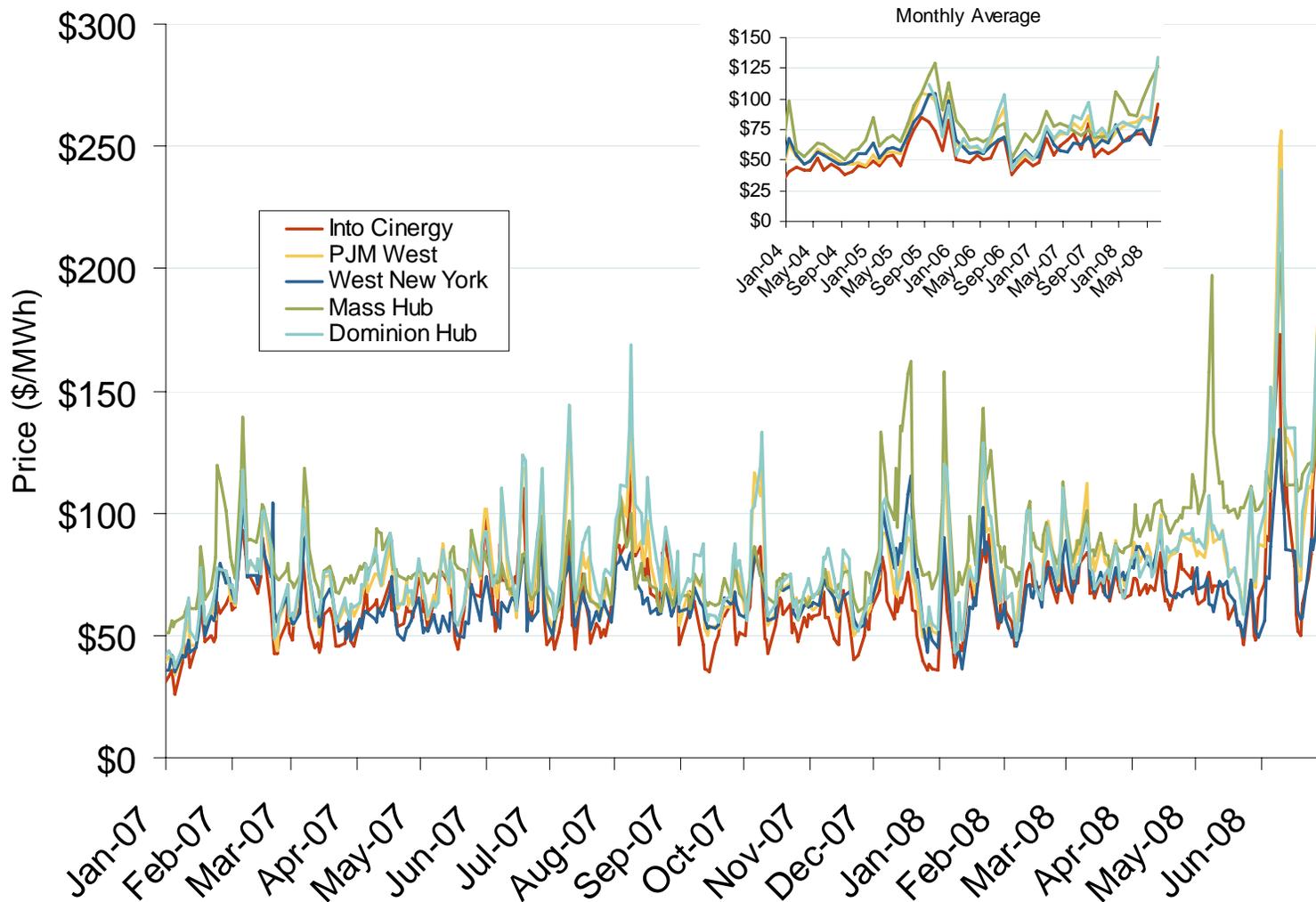
Updated July 9, 2008

2007

A decorative graphic consisting of several thick, parallel red lines. Two lines are vertical, intersecting with three horizontal lines. The lines have a slight blur or glow effect.

Prices and Market Analysis

Eastern Daily Bilateral Day-Ahead On-Peak Prices

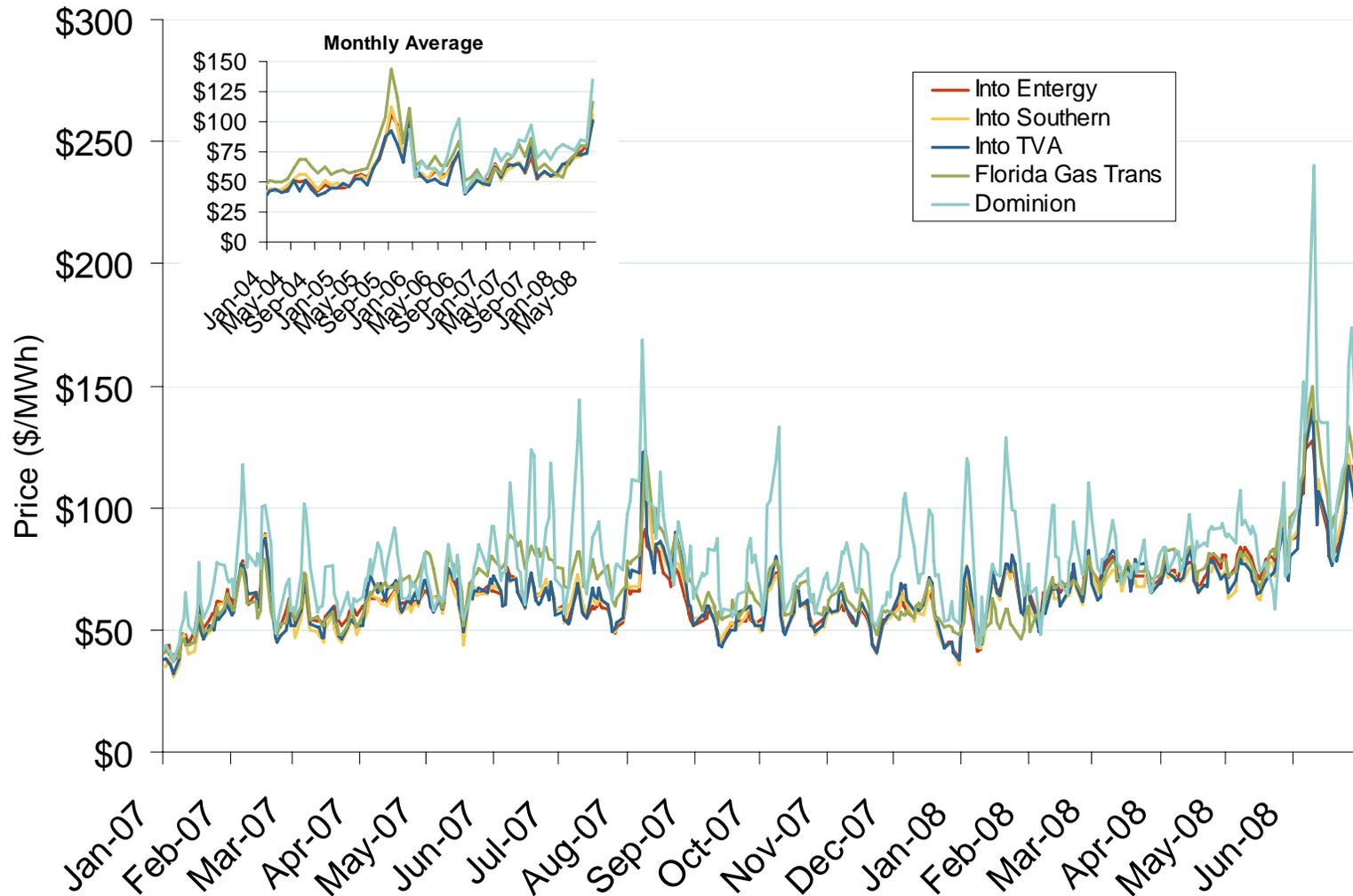


Source: Derived from *Platts* data.

Updated July 9, 2008

1014

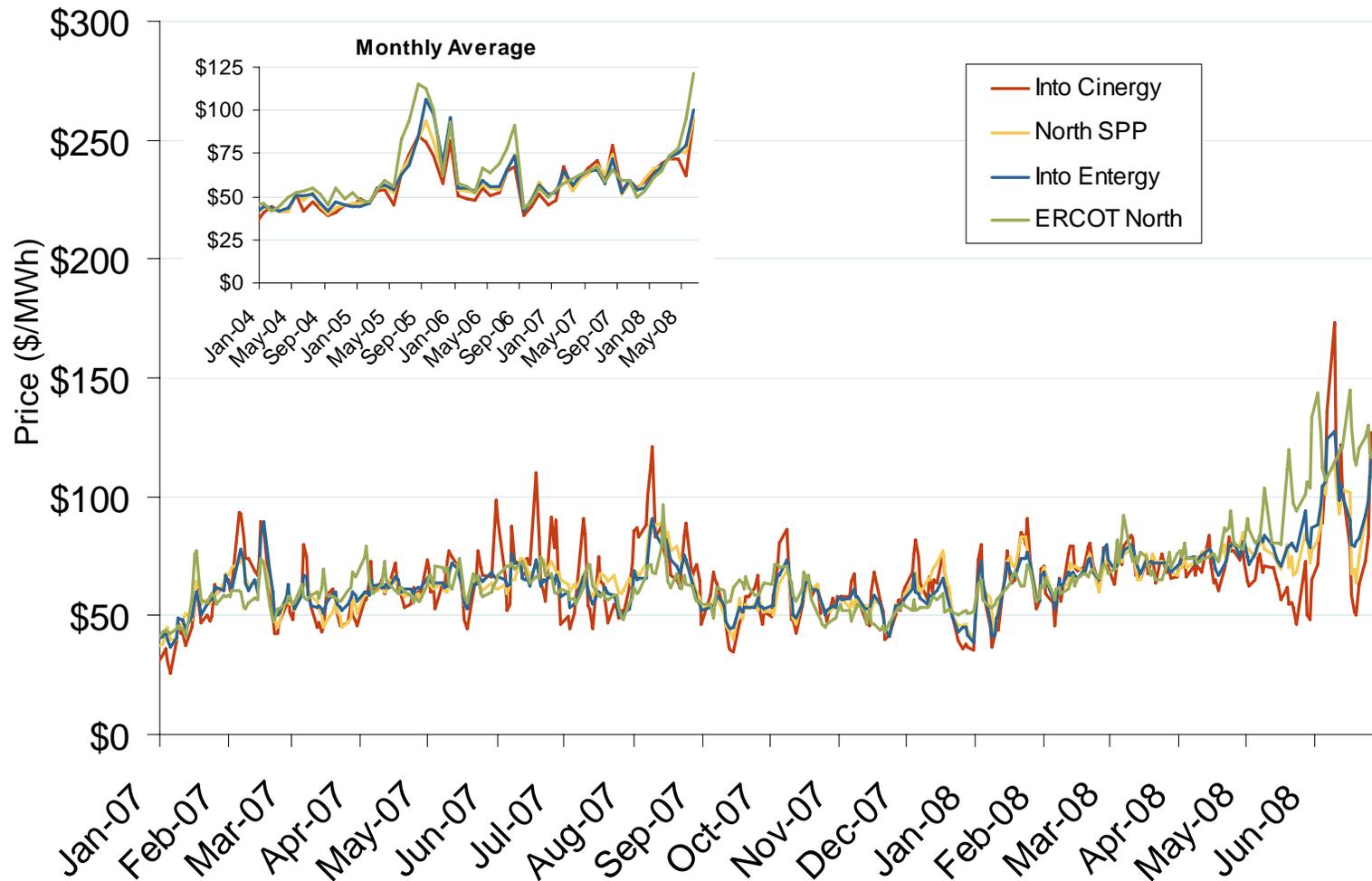
Southeastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated July 9, 2008

Midwestern Daily Bilateral Day-Ahead On-Peak Prices

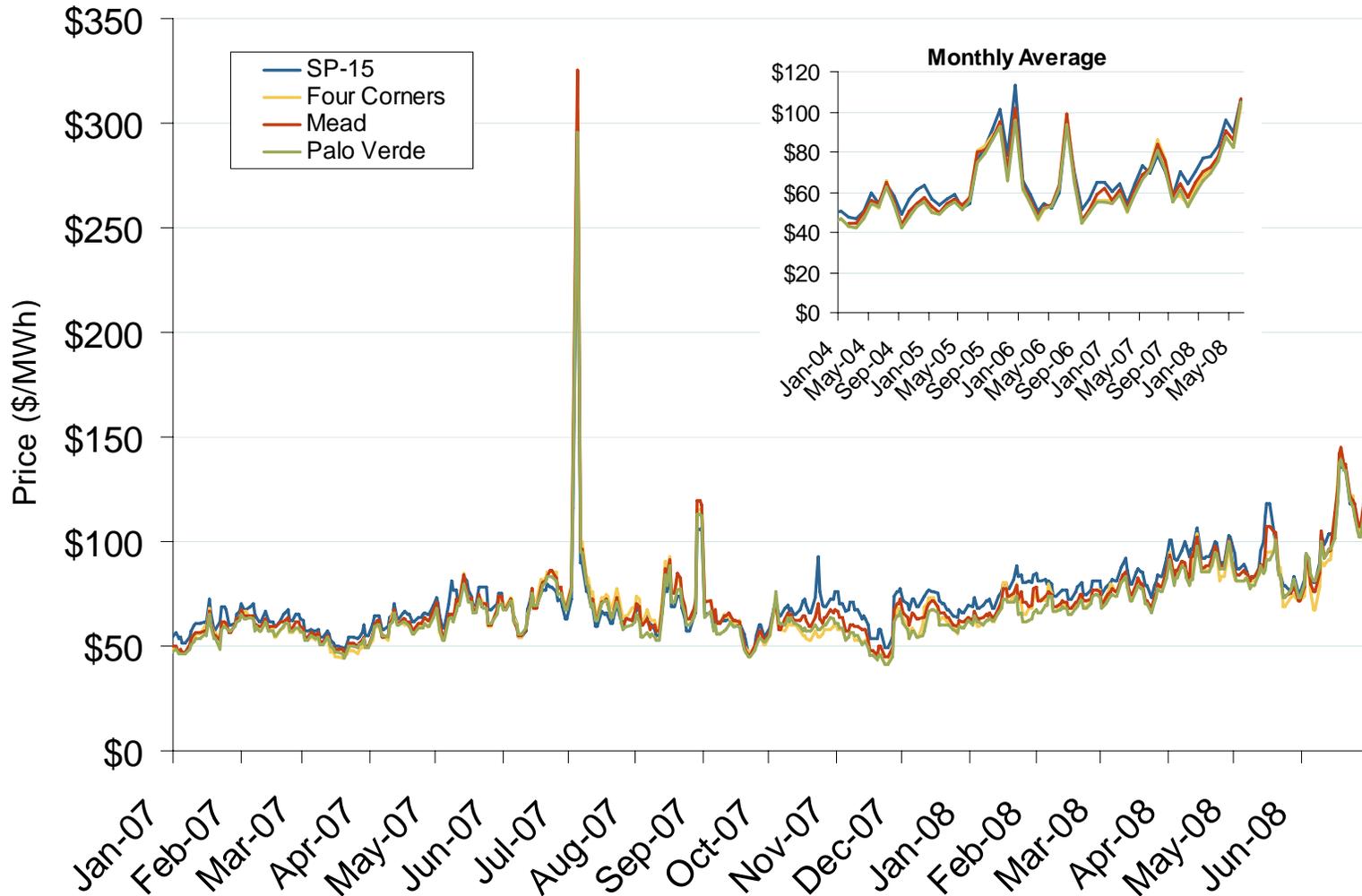


Source: Derived from *Platts* data.

Updated July 9, 2008

1073

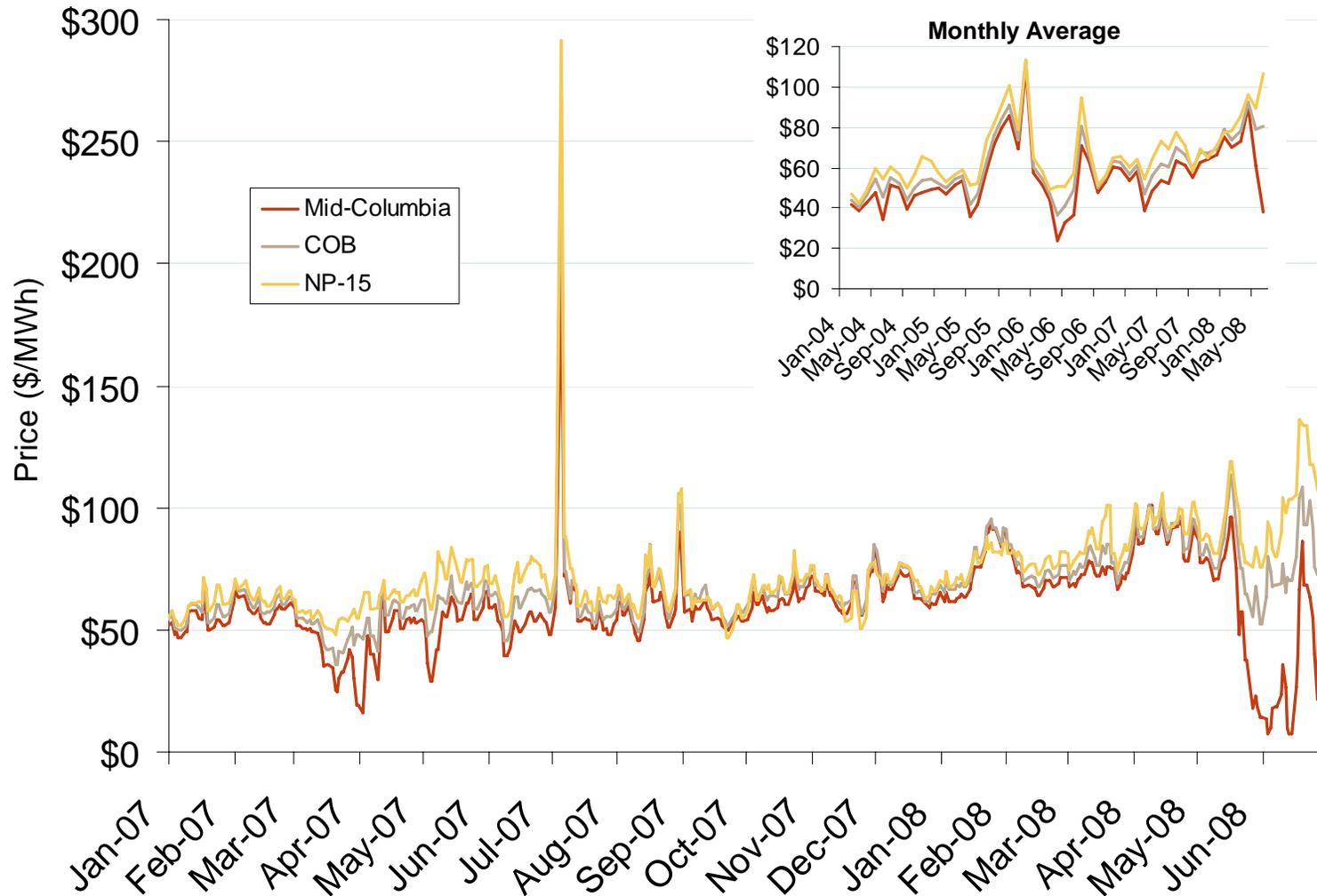
Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated July 9, 2008 1066

Northwestern Daily Bilateral Day-Ahead On-Peak Prices



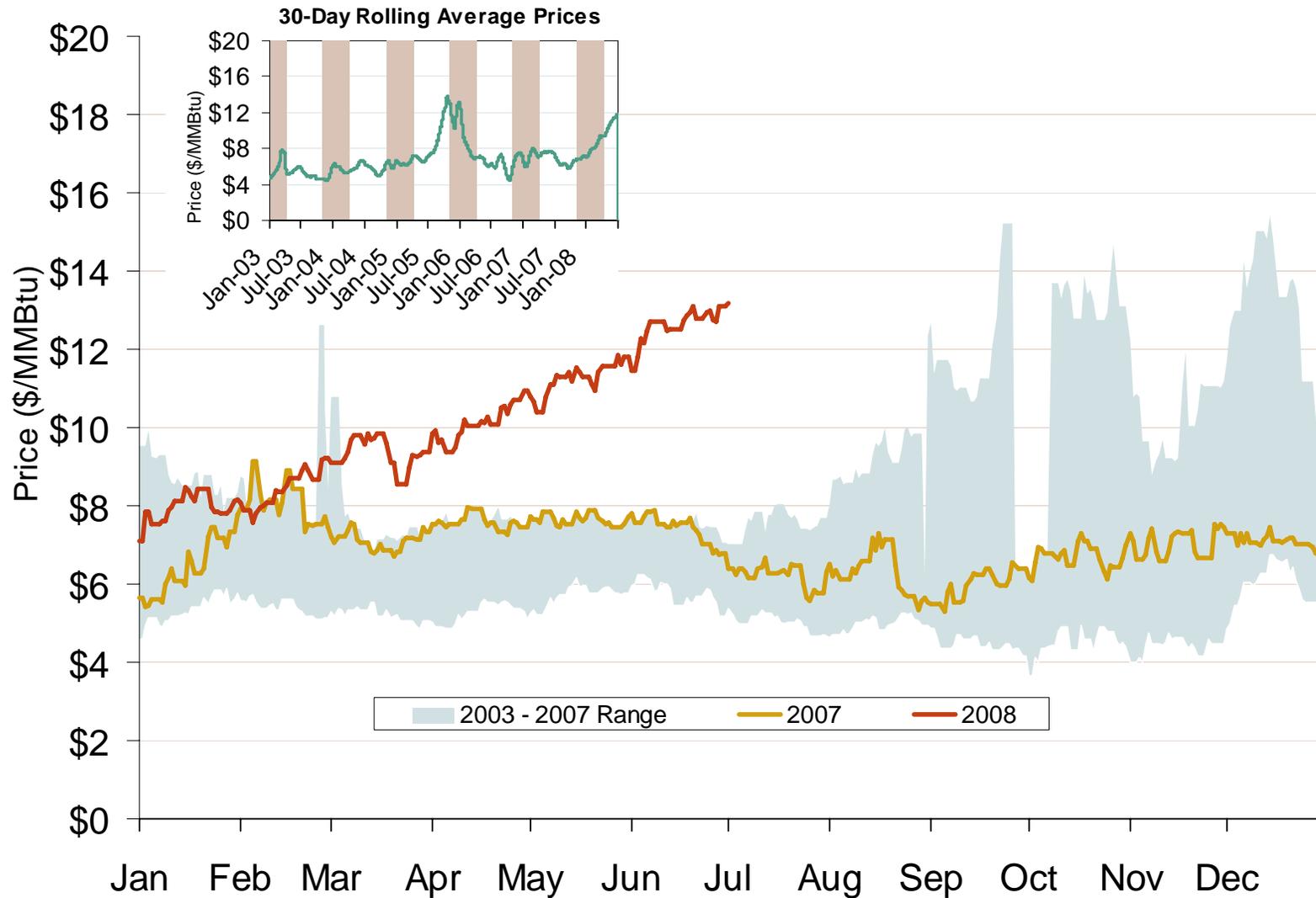
Source: Derived from *Platts* data.

Updated July 9, 2008

1041

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

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

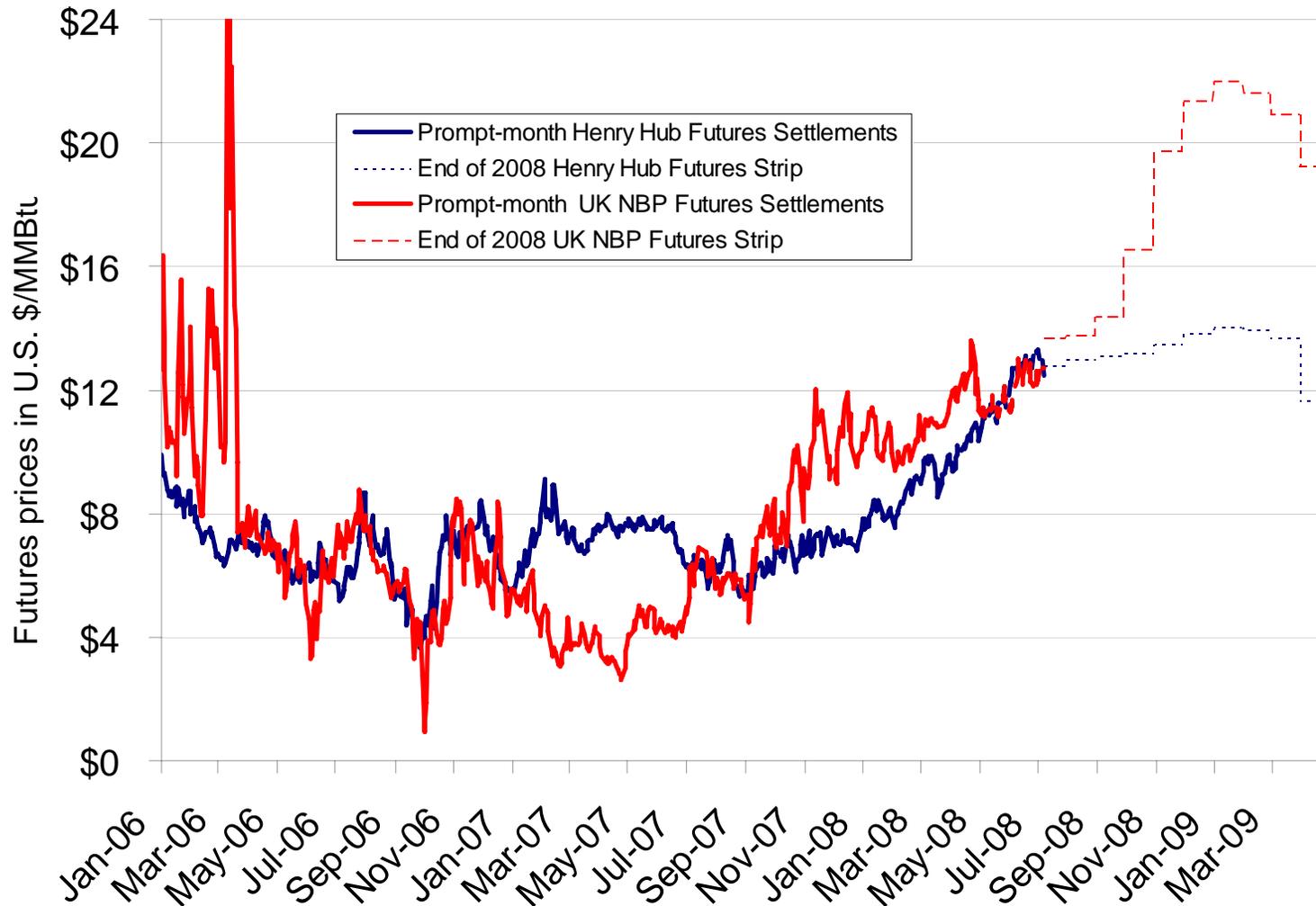


Source: Derived from *Platts* data.

Updated July 9, 2008

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

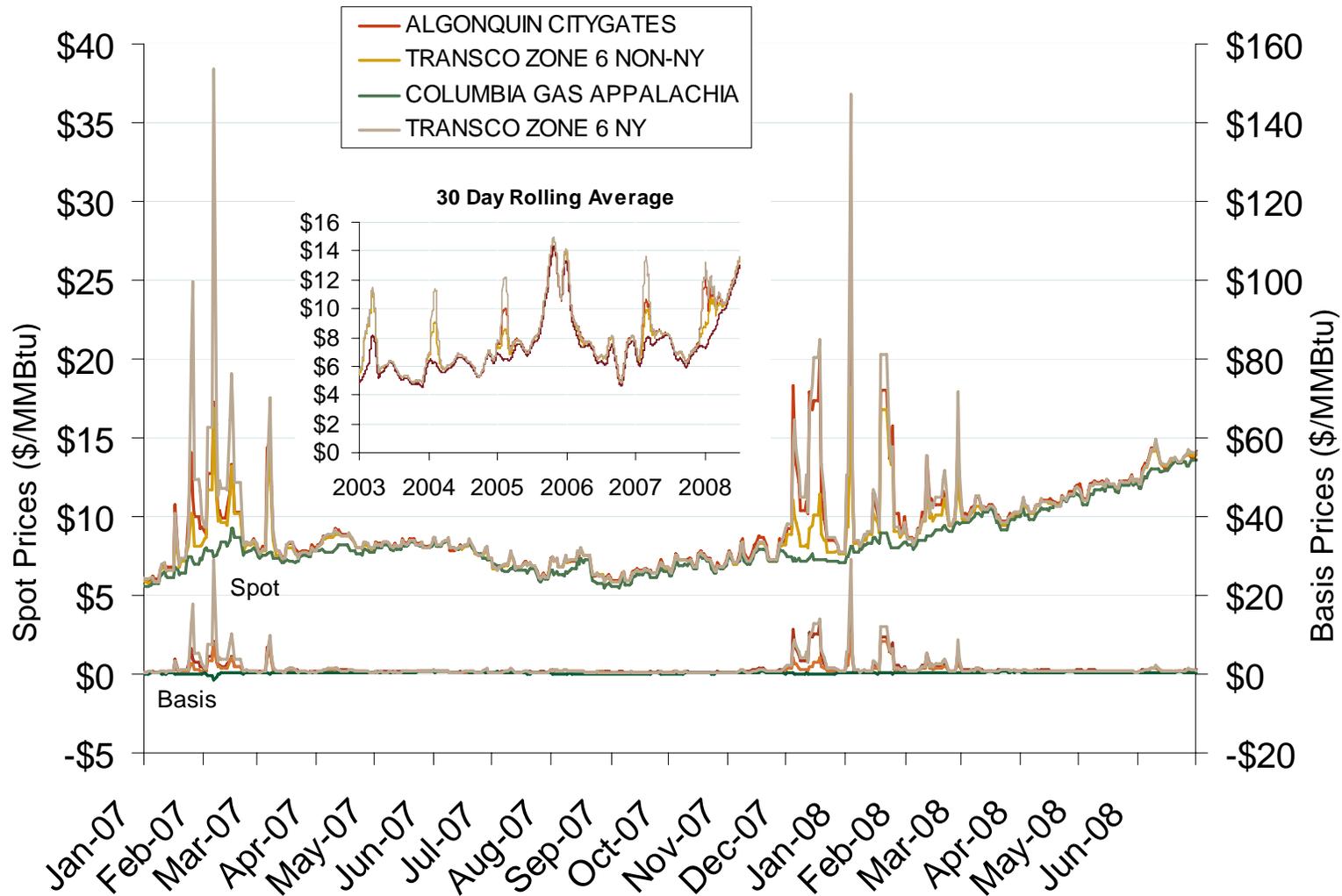


Source: Derived from ICE data.

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2172

Northeastern Spot Prices and Basis

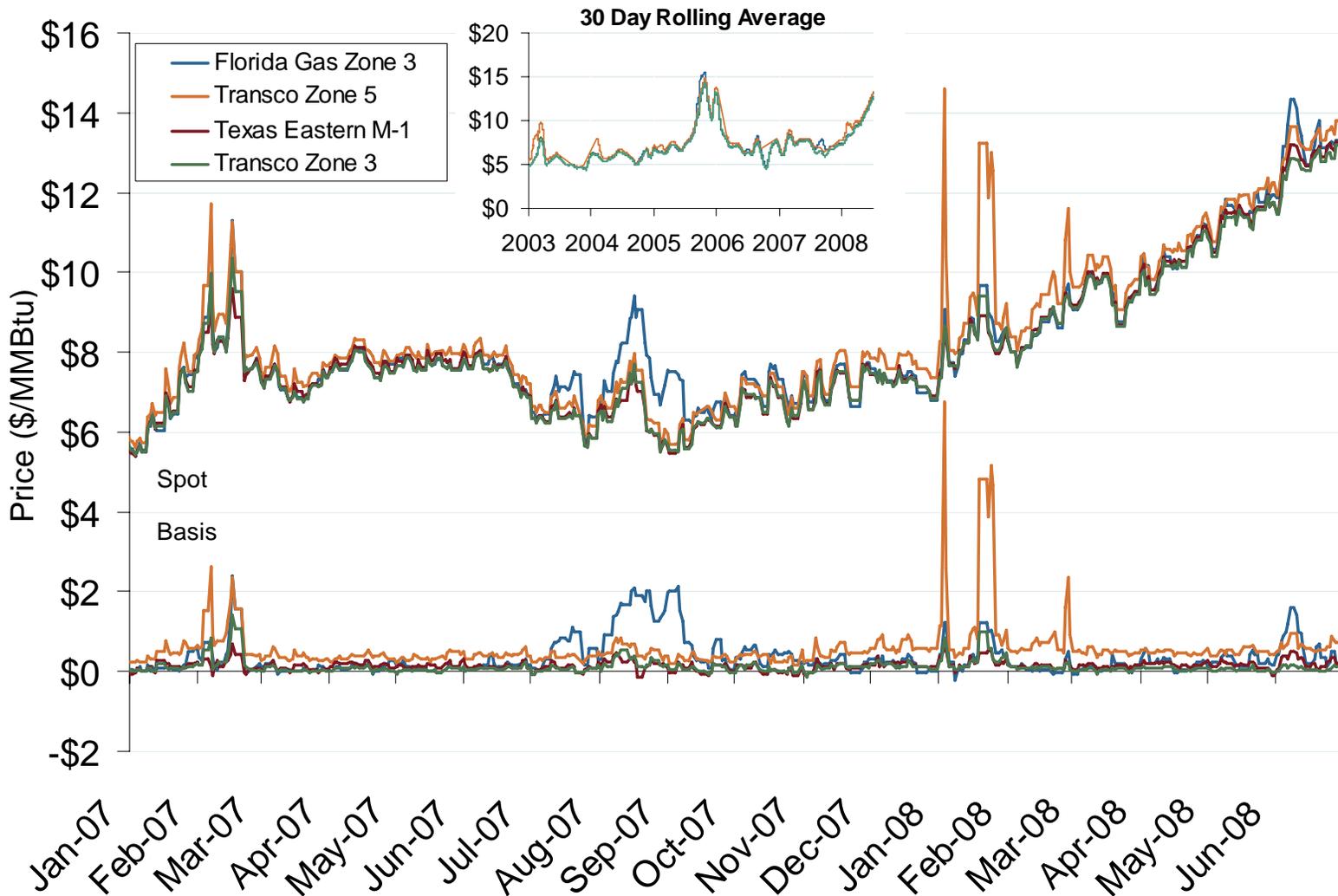


Source: Derived from *Platts* data.

Updated July 9, 2008

2030

Southeastern Day-Ahead Hub Spot Prices and Basis

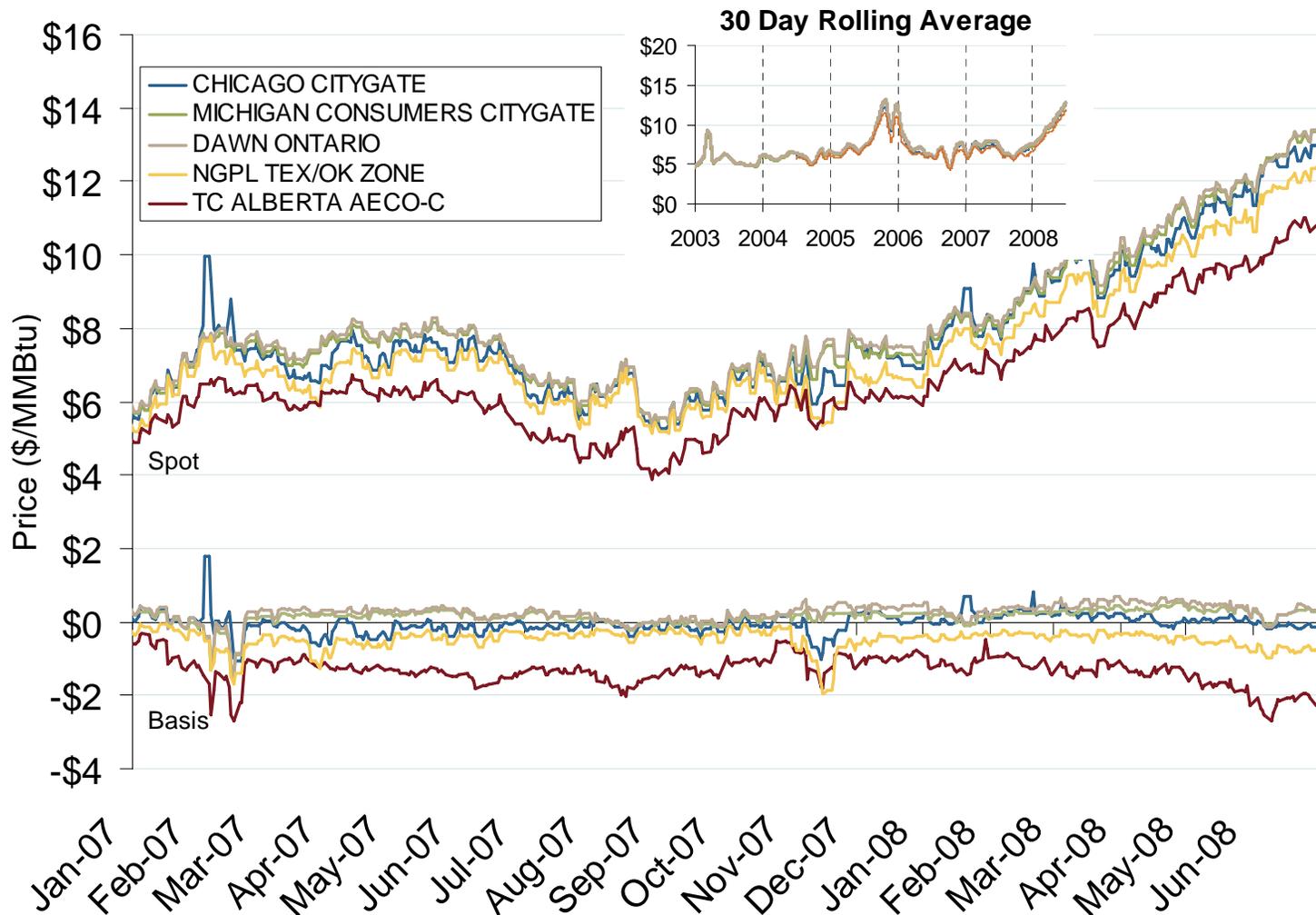


Source: Derived from *Platts* data.

Updated July 9, 2008

2058

Midwestern Day-Ahead Hub Spot Prices and Basis

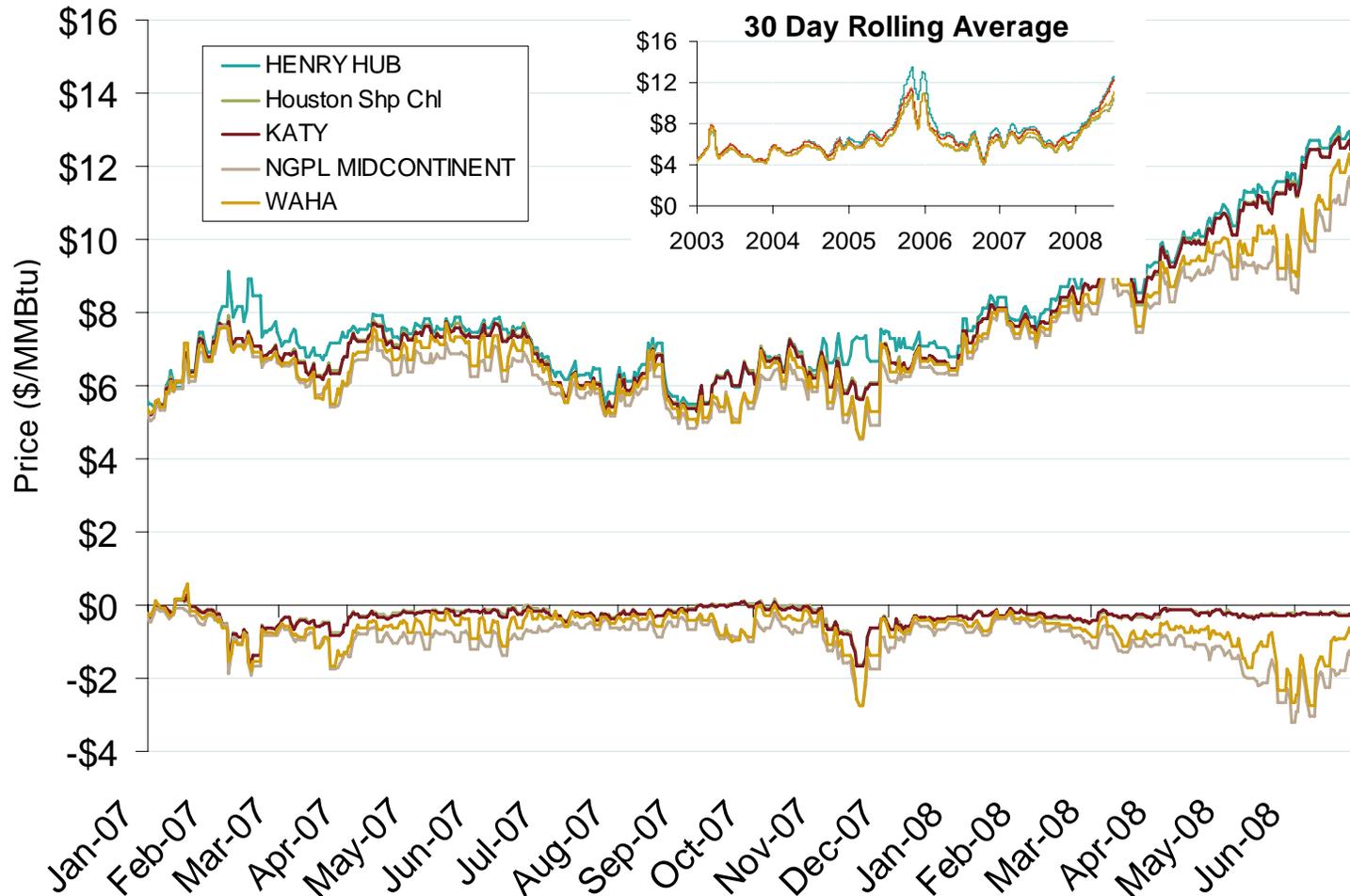


Source: Derived from *Platts* data.

Updated July 9, 2008

2016

South Central Day-Ahead Hub Spot Prices and Basis

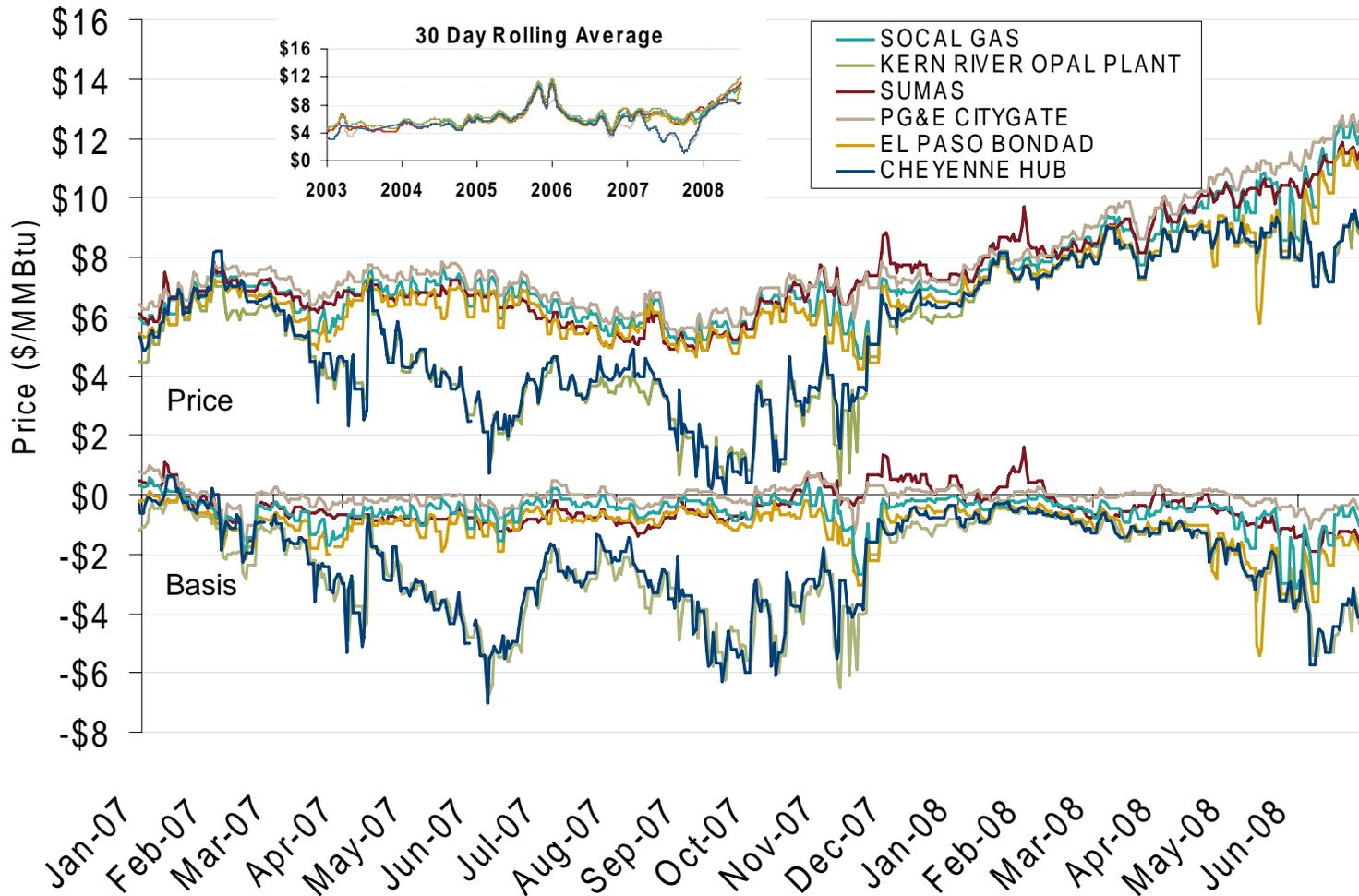


Source: Derived from *Platts* data.

Updated July 9, 2008

2044

Western Day-Ahead Hub Spot Prices and Basis

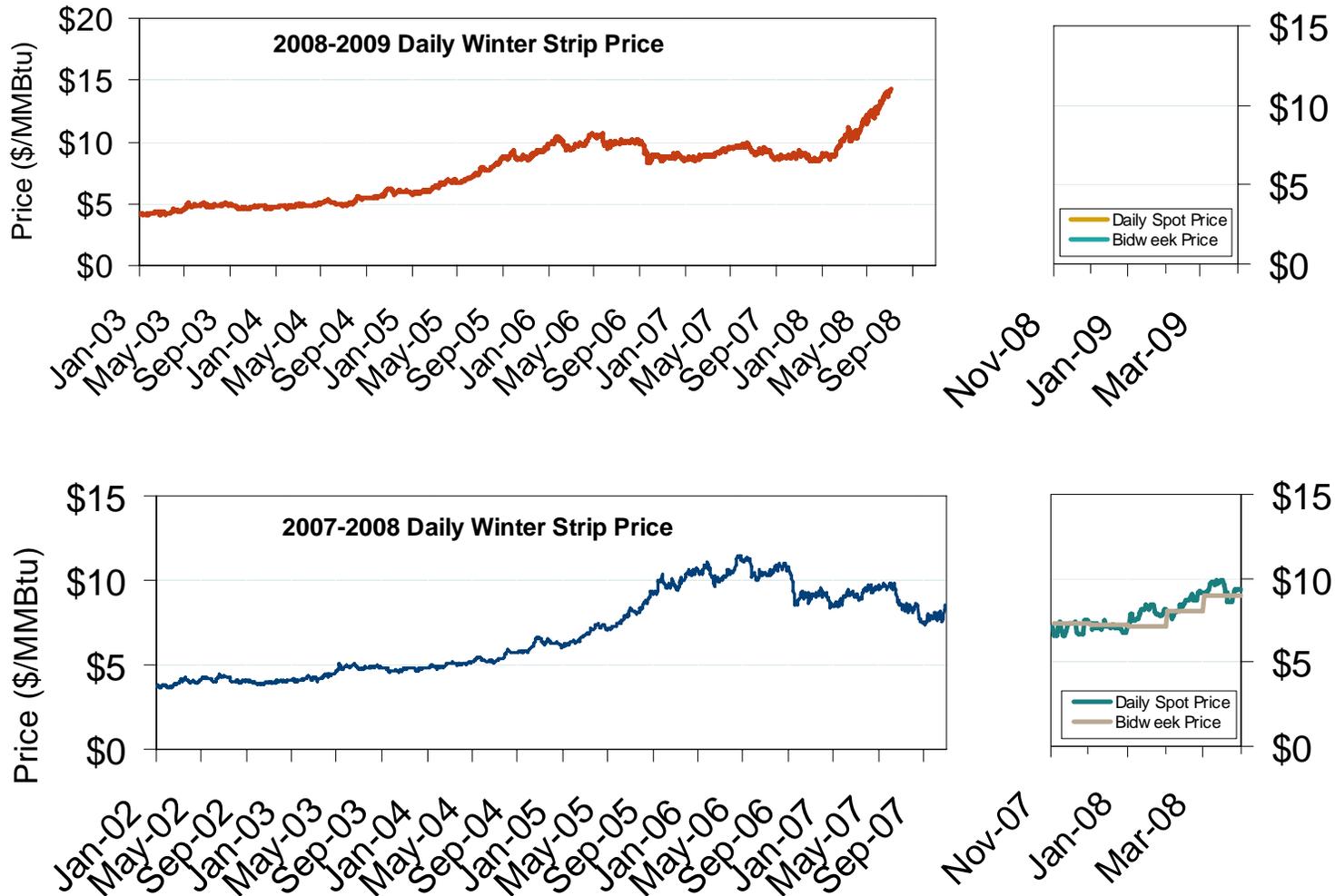


Source: Derived from *Platts* data.

Updated July 9, 2008

2072

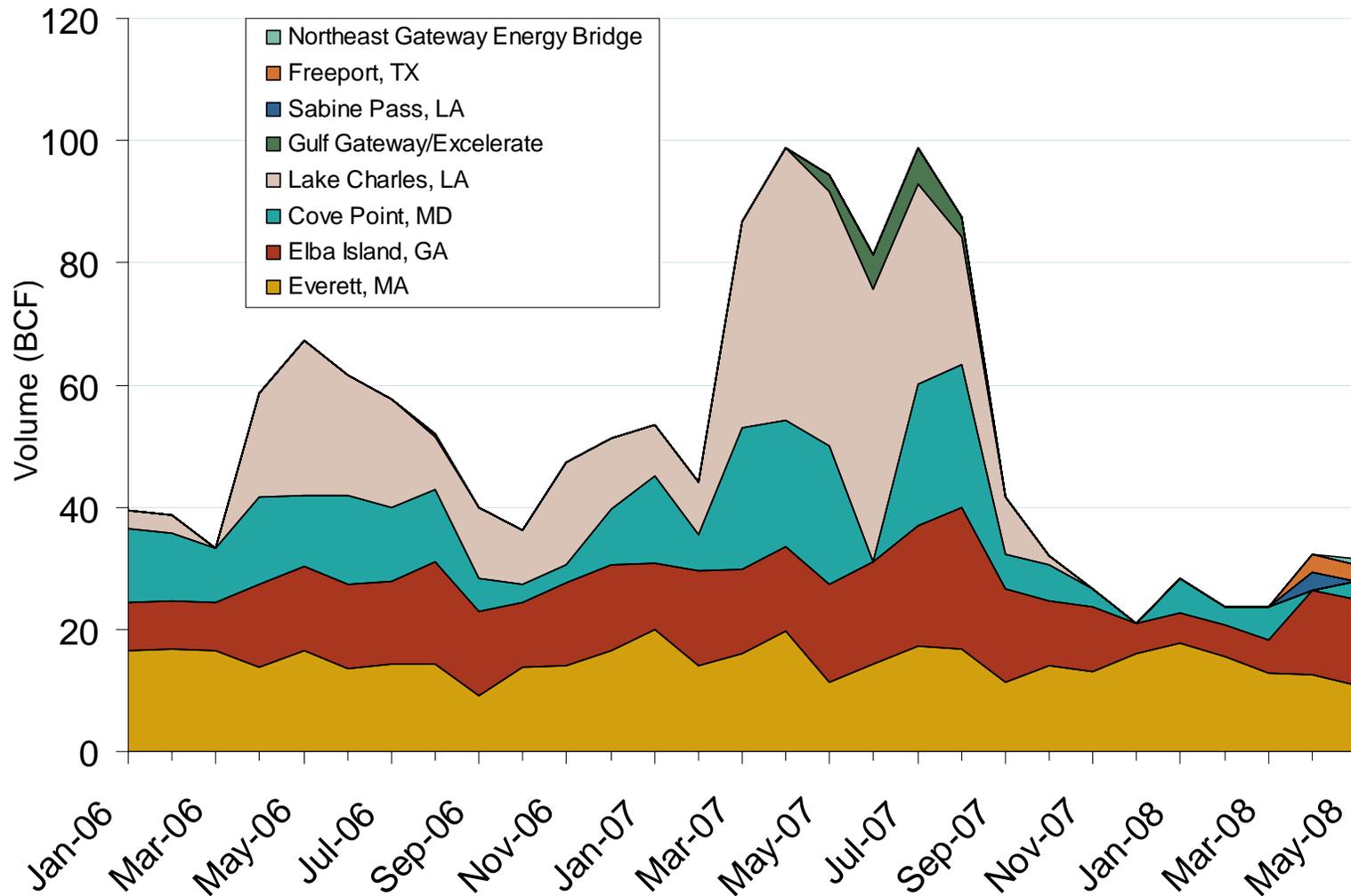
Natural Gas Winter Futures Strip and Daily Henry Hub Spot and Bidweek Prices



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

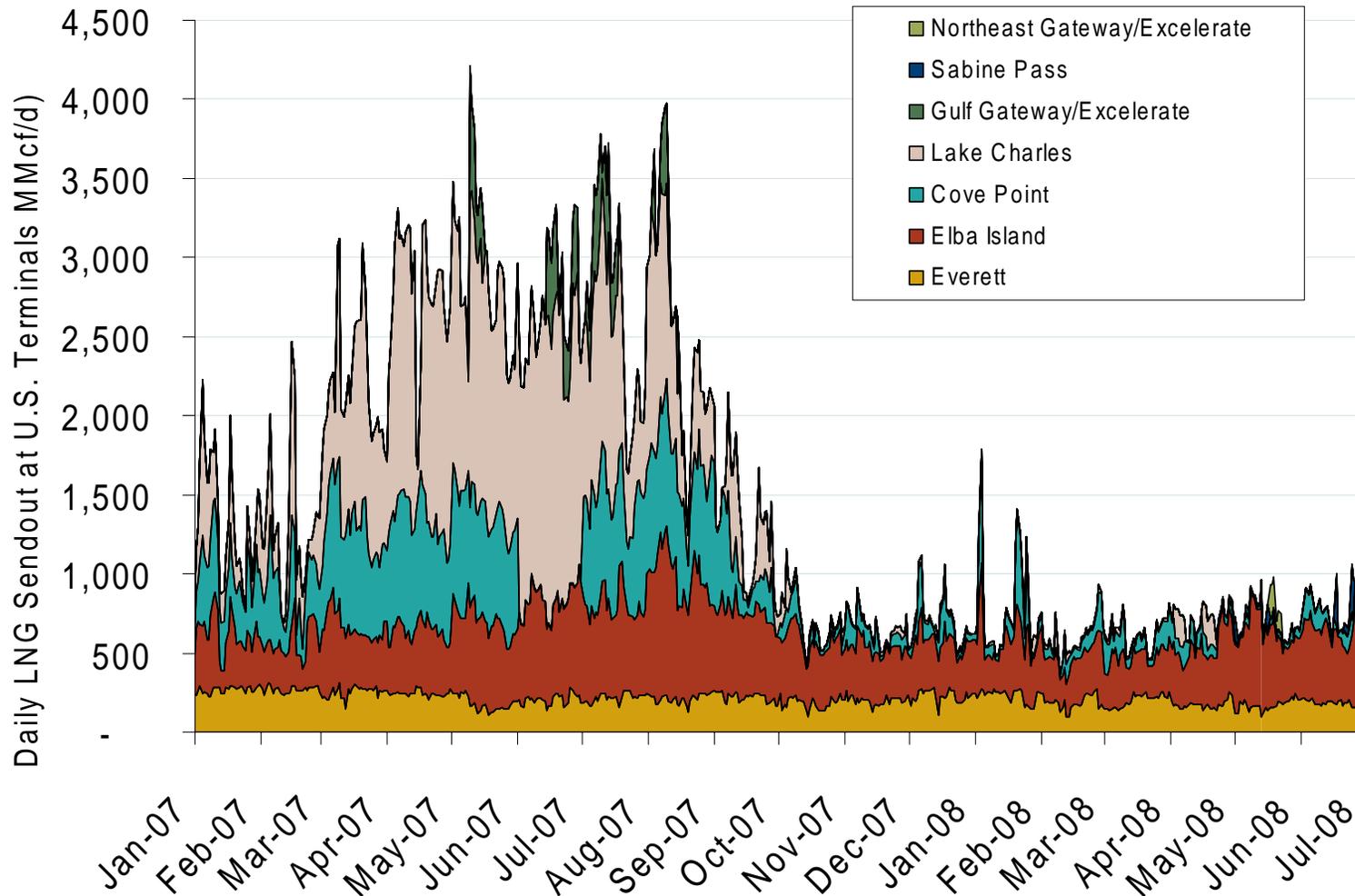
Updated July 9, 2008

Monthly Gas Imports at Existing U.S. LNG Facilities



Source: Derived from DOE Office of Fossil Energy data.

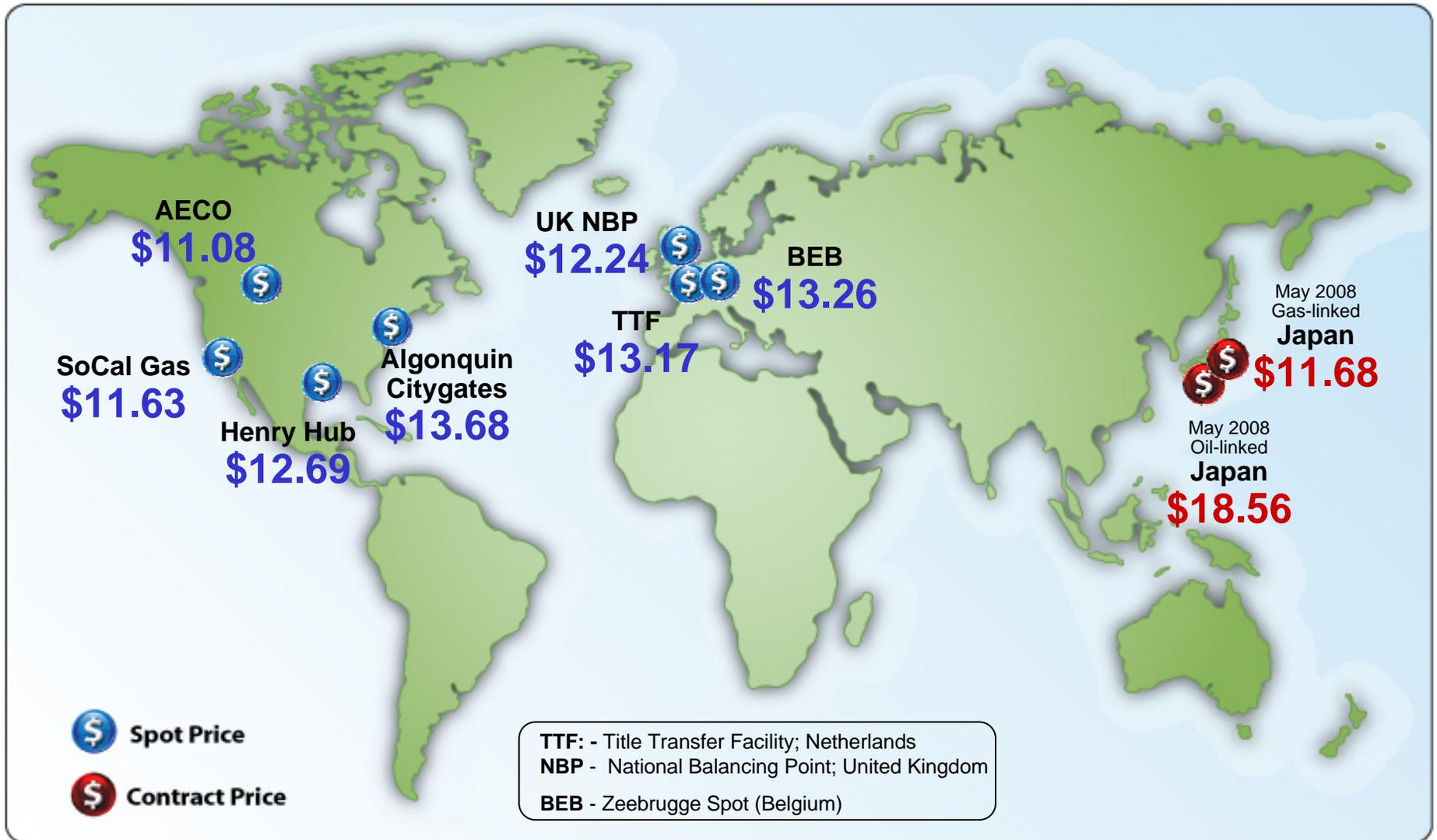
Daily Gas Sendout from Existing U.S. LNG Facilities



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.

Updated July 14, 2008 3007

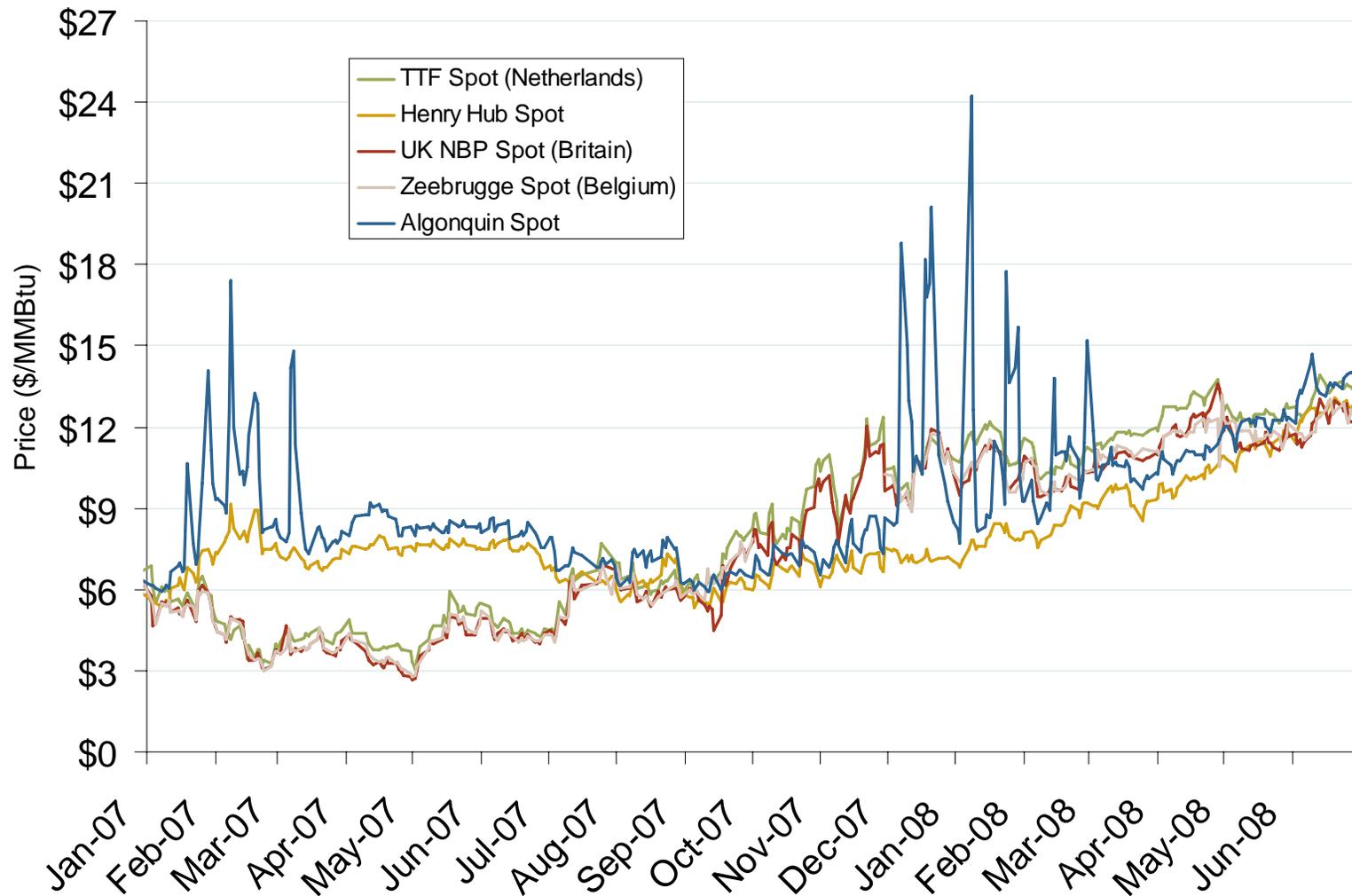
World Natural Gas Prices for June 2008



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

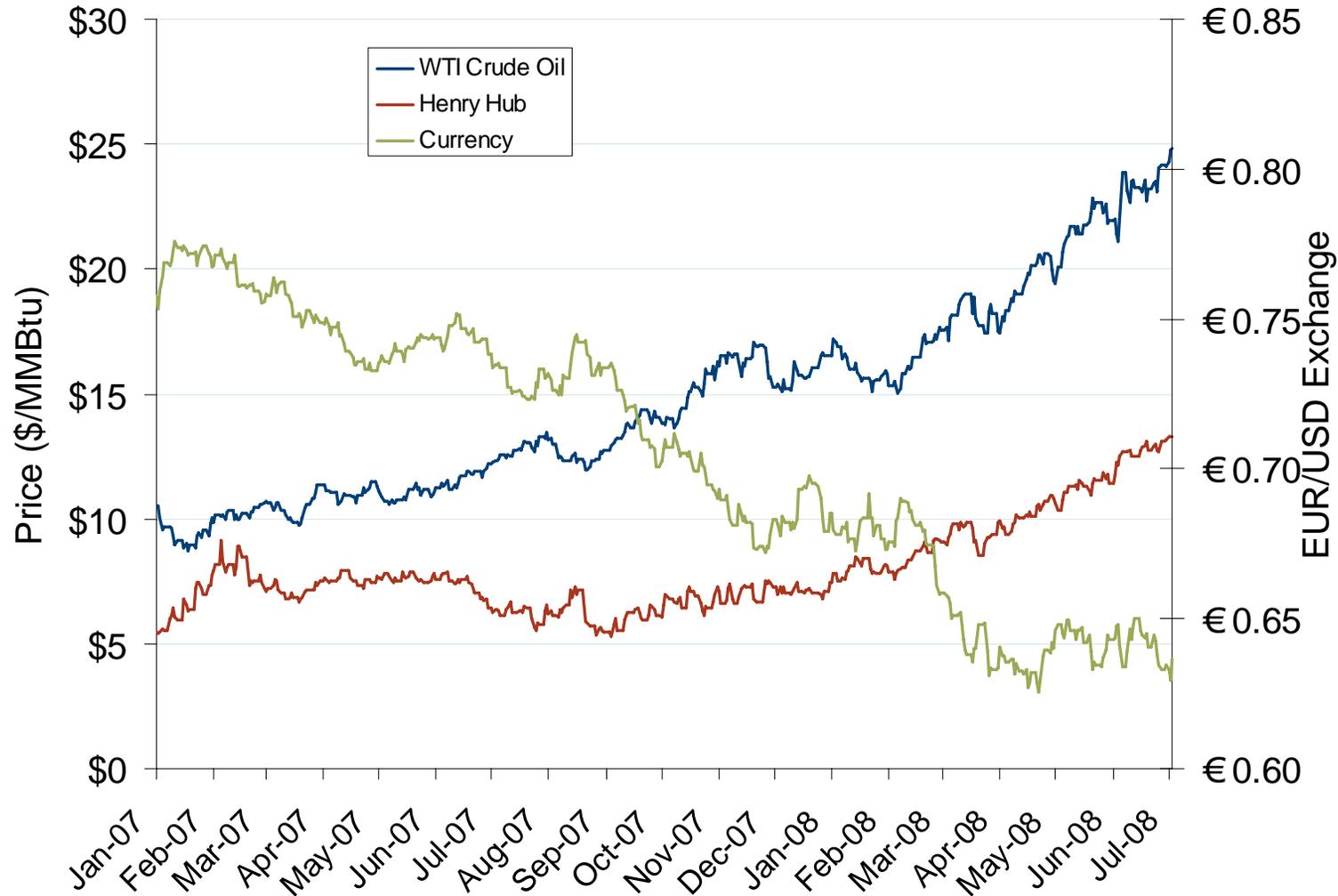


Source: Derived from *Bloomberg* and *ICE* data.

Updated July 9, 2008

3008

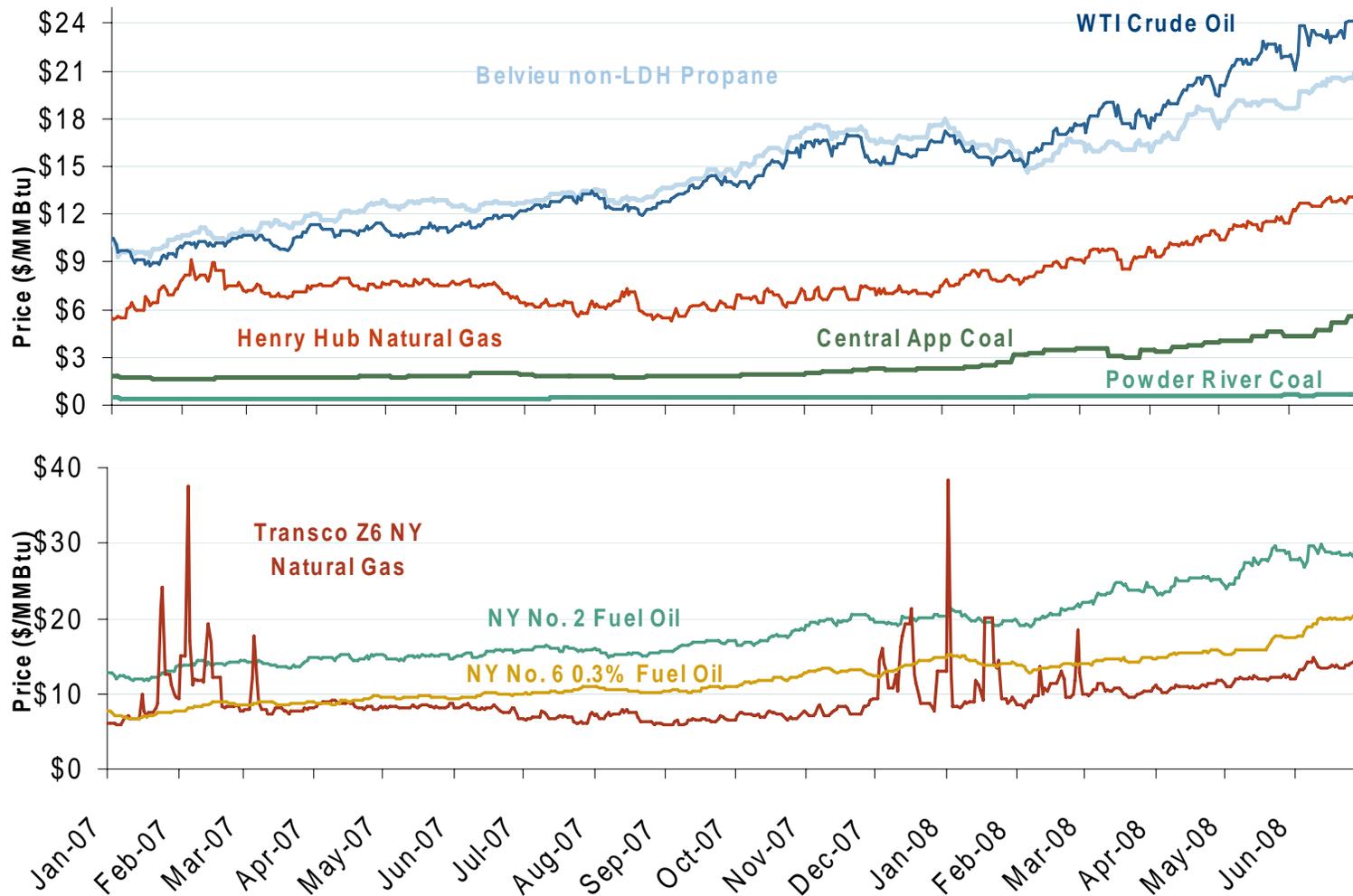
Oil, Natural Gas and Currency Spot Prices



Source: Derived from *Bloomberg* data.

Updated July 9, 2008

Oil, Coal, Natural Gas and Propane Daily Spot Prices

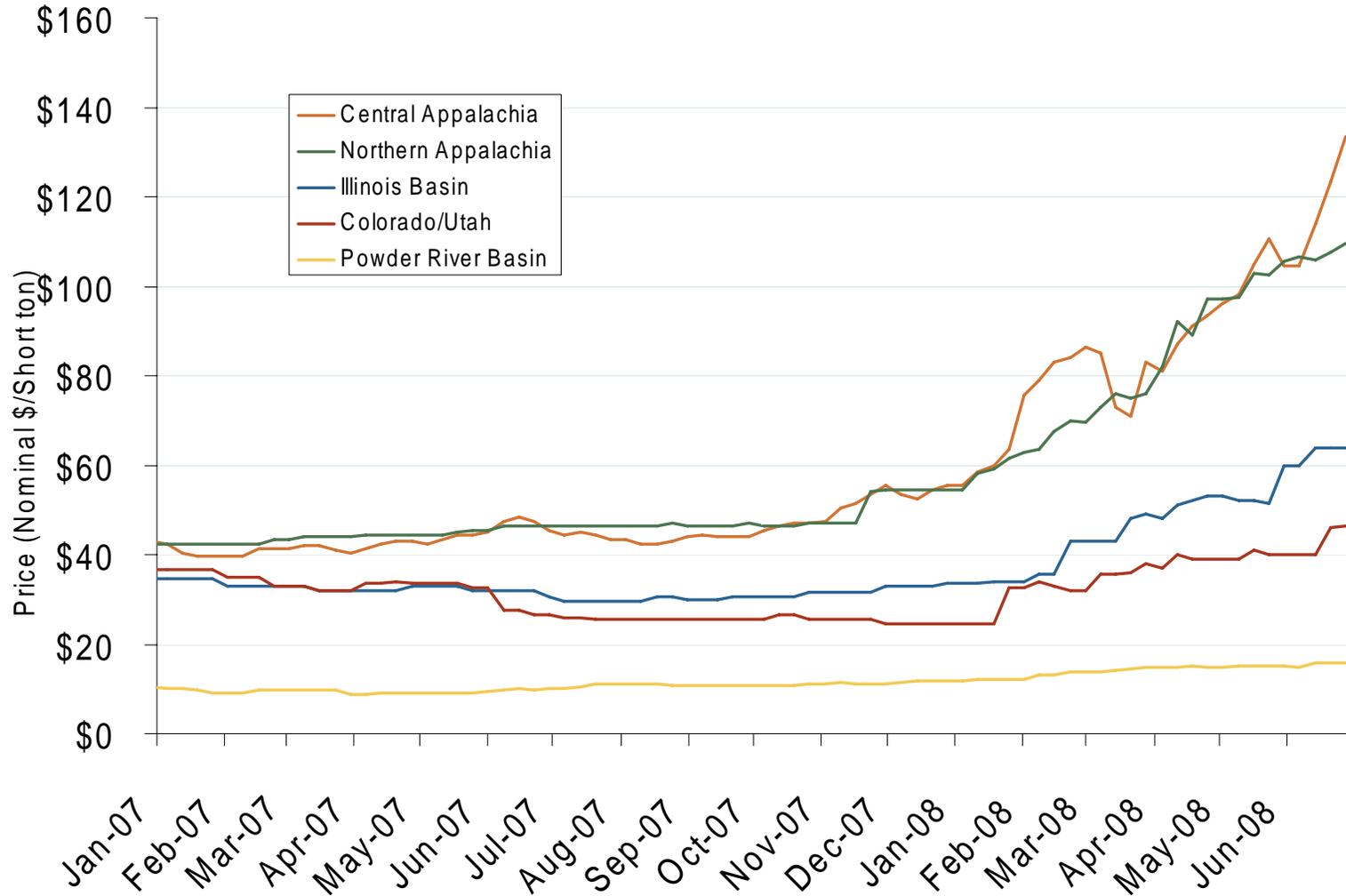


Source: Derived from ICE and Bloomberg data.

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.

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Regional Coal Spot Prices

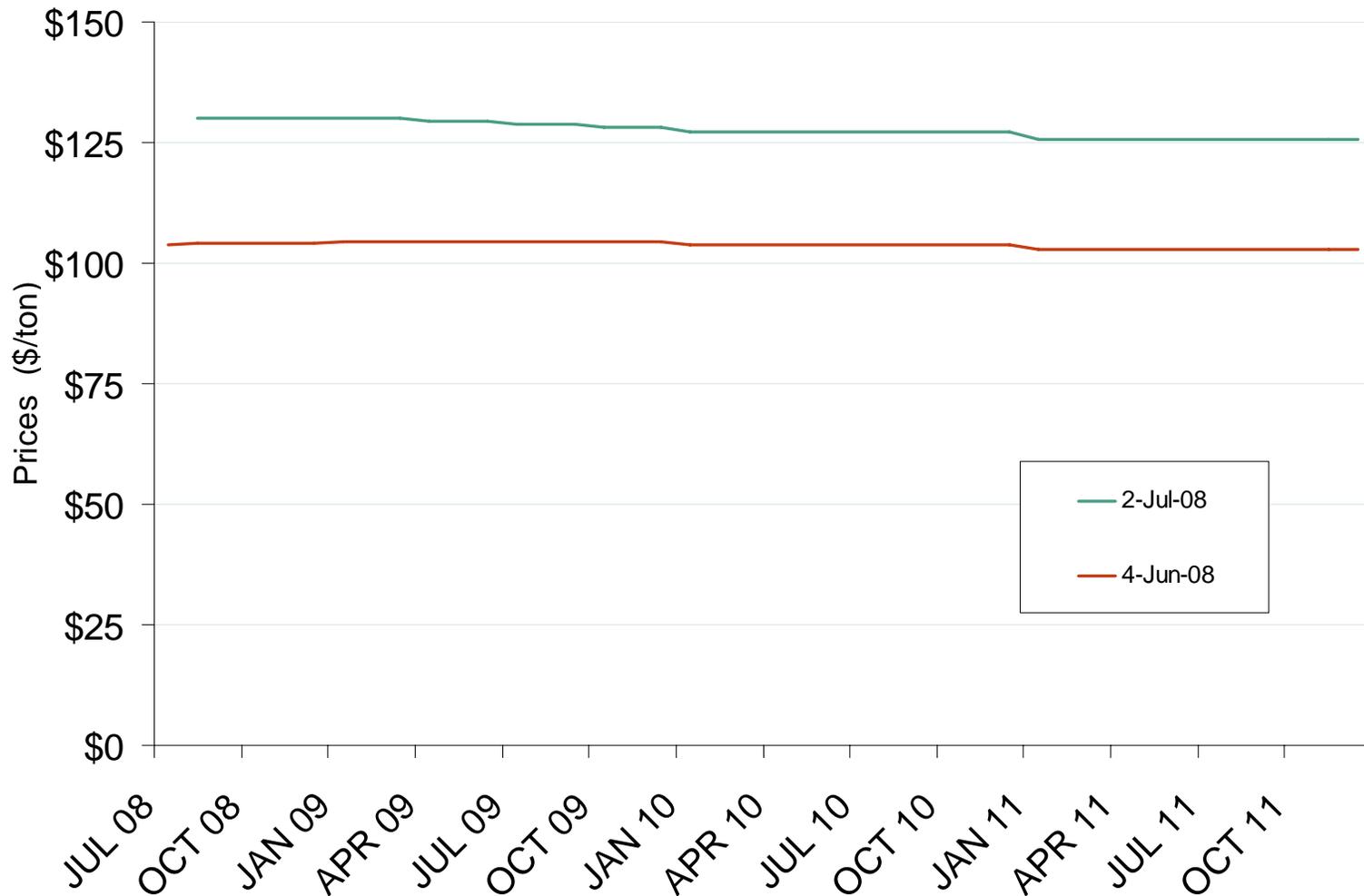


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

Updated July 14, 2008

Central Appalachian Coal Futures Prices

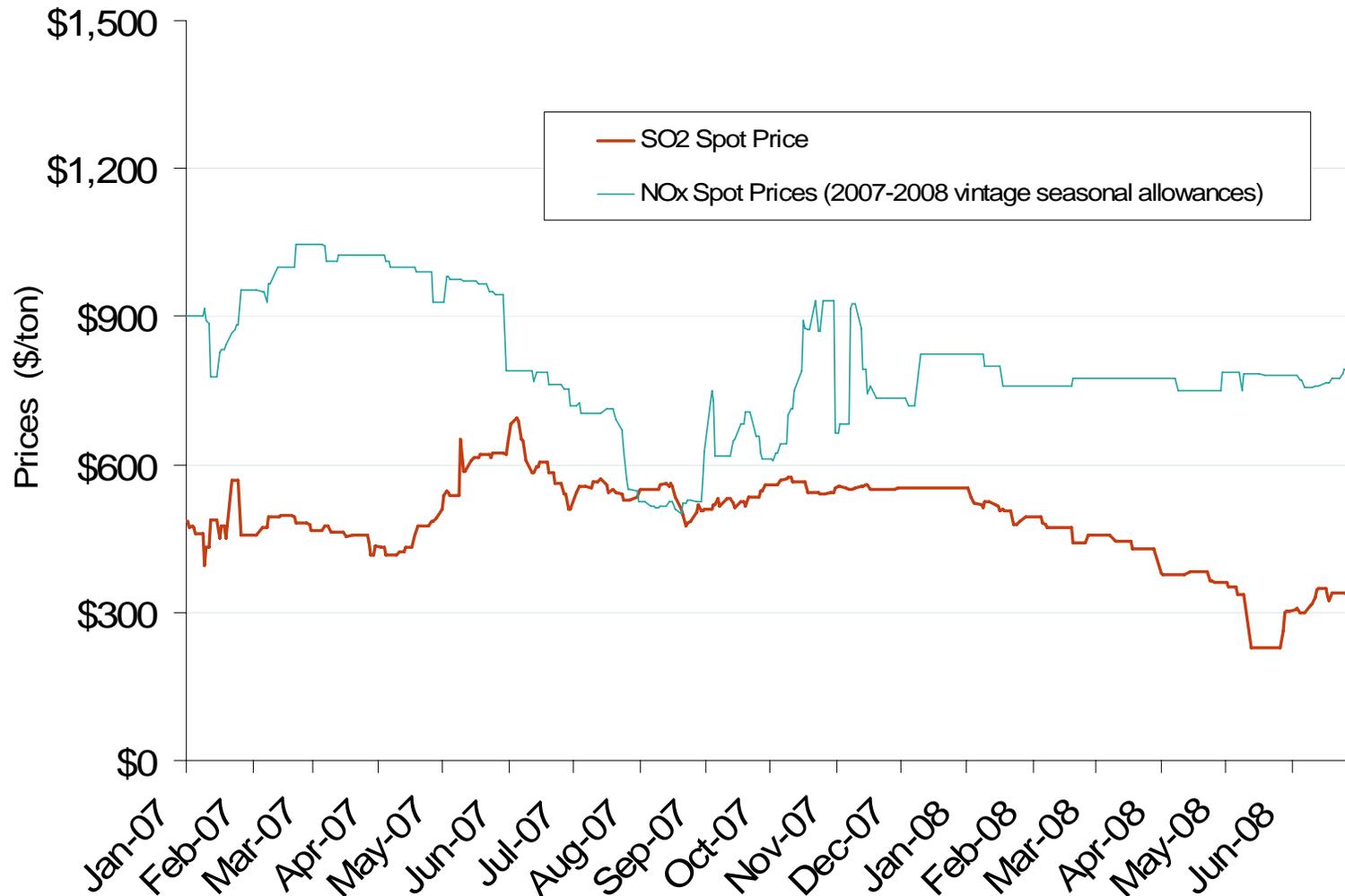


Source: Derived from Nymex data.

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3003

SO₂ Allowance Spot Prices and NOx Seasonal Allowance Spot Prices



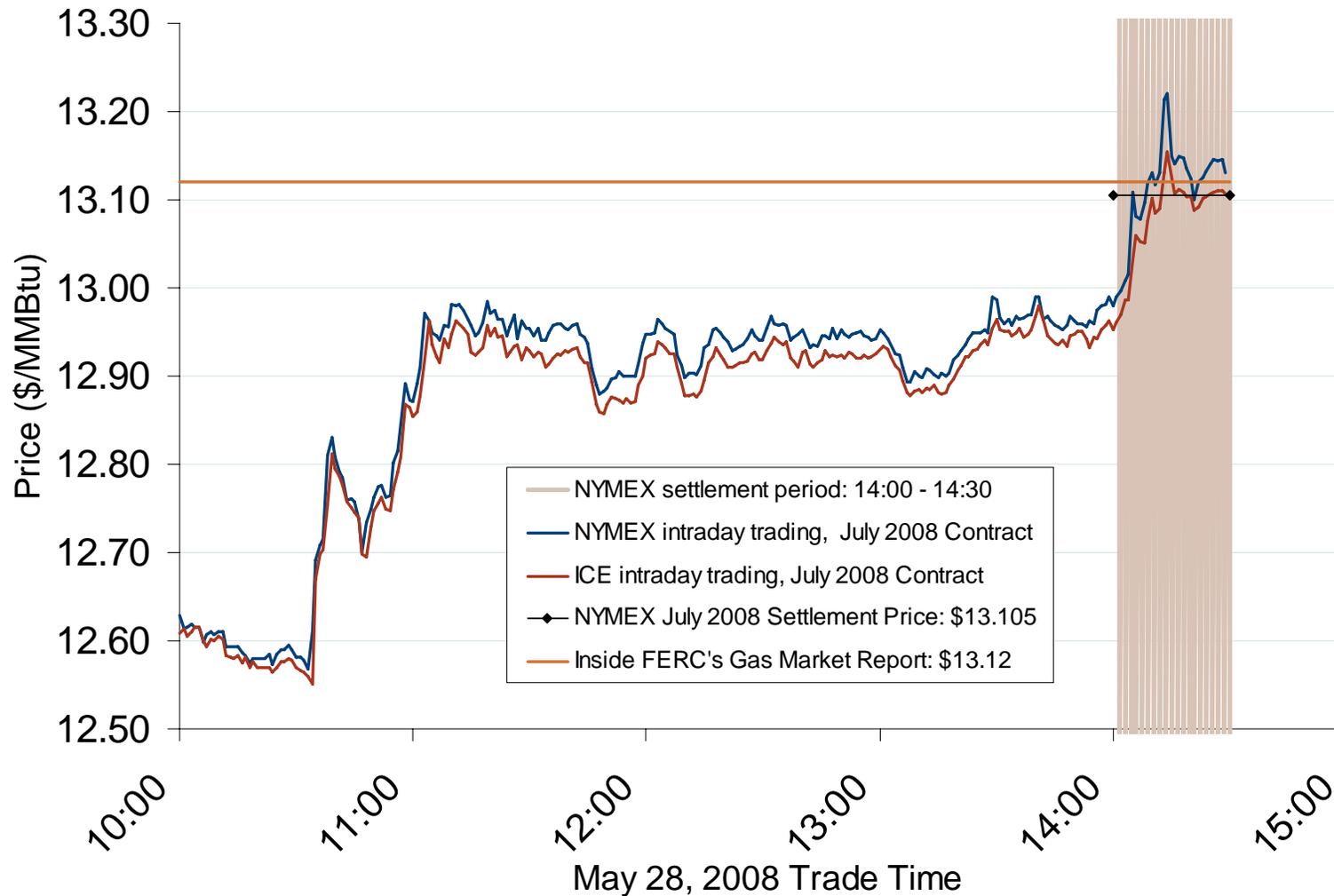
Source: Derived from Cantor Fitzgerald data.

See notes on following pages.

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3004

July 2008 NYMEX and ICE Contract Final Settlement Day



Source: Derived from *Nymex and ICE* data.

Updated July 2, 2008

Renewable Energy Portfolio Standards (RPS)

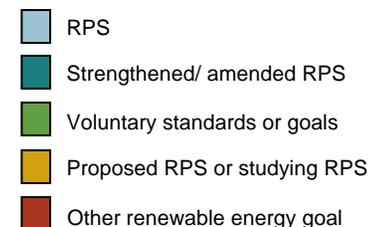
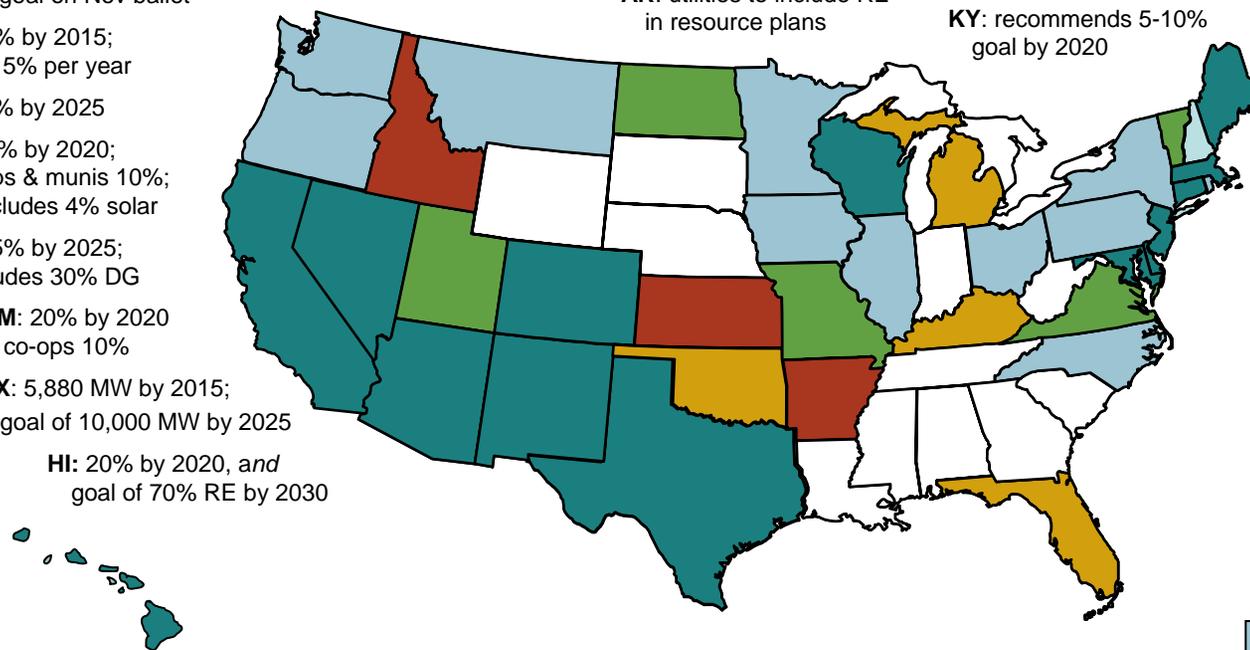
WA: 15% by 2020
OR: 25% by 2025; small utilities 5-10%
CA: 20% by 2010; goal of 33% by 2020; 50% goal on Nov ballot
NV: 20% by 2015; solar 5% per year
UT: 20% by 2025
CO: 20% by 2020; co-ops & munis 10%; includes 4% solar
AZ: 15% by 2025; includes 30% DG
NM: 20% by 2020 co-ops 10%
TX: 5,880 MW by 2015; goal of 10,000 MW by 2025
HI: 20% by 2020, and goal of 70% RE by 2030

MT: 15% by 2015
ND: 10% by 2015
KS: 20% wind by 2020
OK: studying RPS, RE transmission, cost-recovery

MN: 25% by 2025 Xcel 30% by 2020
IA: 1,105 MW by 2011*
MO: 11% by 2020; ballot initiative for mandate
AR: utilities to include RE in resource plans

WI: 10% by 2015
IL: 25% by 2025
MI: different bills passed by House and Senate
OH: 12.5% by 2025, with 0.5% solar
KY: recommends 5-10% goal by 2020

ME: 40% by 2017
NH: 23.8% BY 2025
VT: 25% by 2025
MA: doubles RPS - 15% by 2020; goal of 250 MW solar by 2017
RI: 16% by 2019
CT: 23% Class I/II by 2020 4% Class III by 2010
NY: 24% by 2013
PA: 8% Tier I, 10% Tier II by 2020; solar set-aside
NJ: 22.5% by 2020, with 2% solar
DE: 20% by 2019, with 2% solar
DC: doubles RPS - 20% by 2020; no less than 0.4% solar
MD: 20% by 2022, with 2% solar
VA: 12% by 2022
NC: 12.5% by 2021 co-ops & munis: 10% by 2018
FL: law directs PSC to write RPS regulations

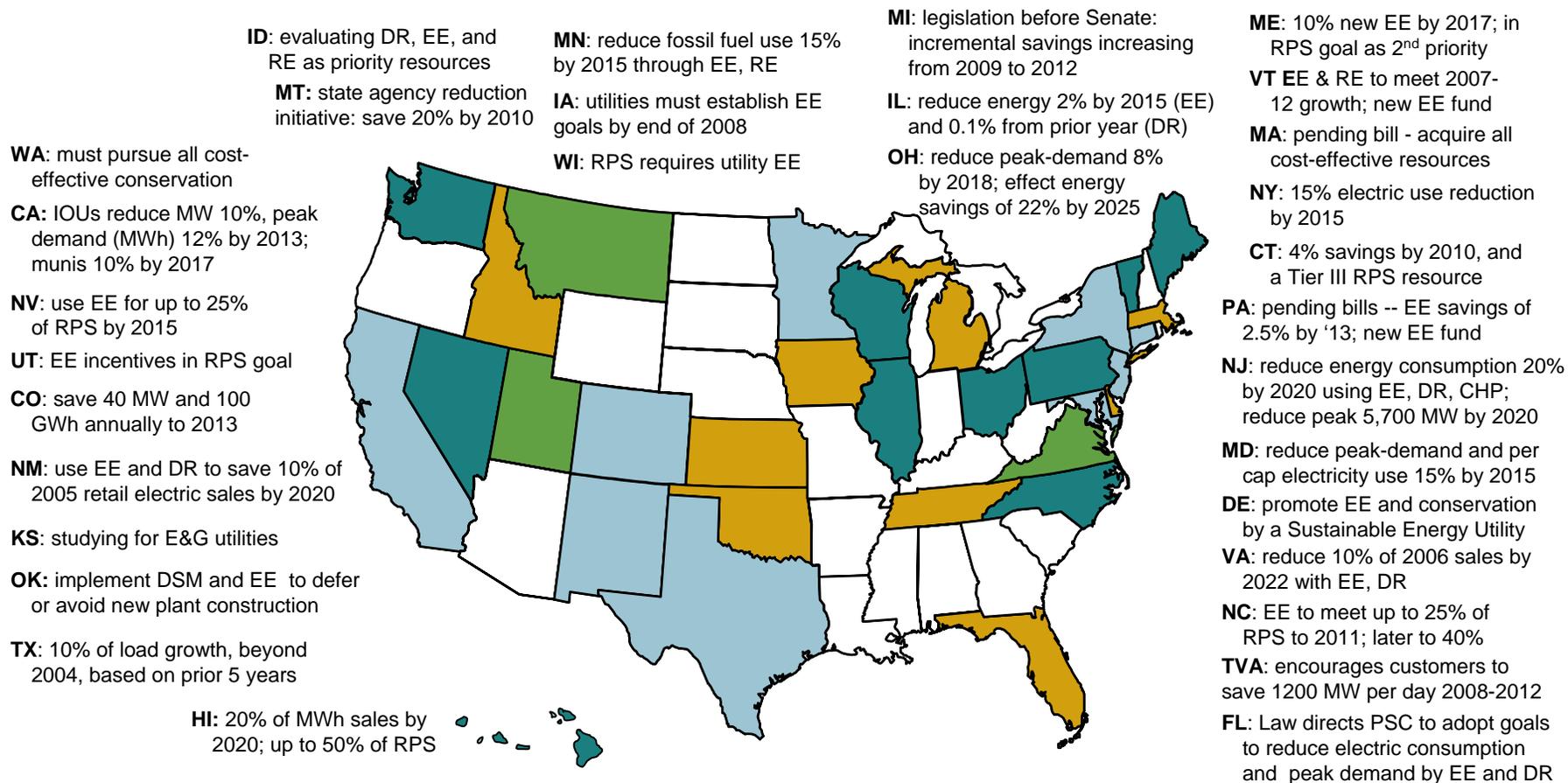


Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rps.pdf>

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