

OE ENERGY MARKET SNAPSHOT

National Version – August 2008 Data

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

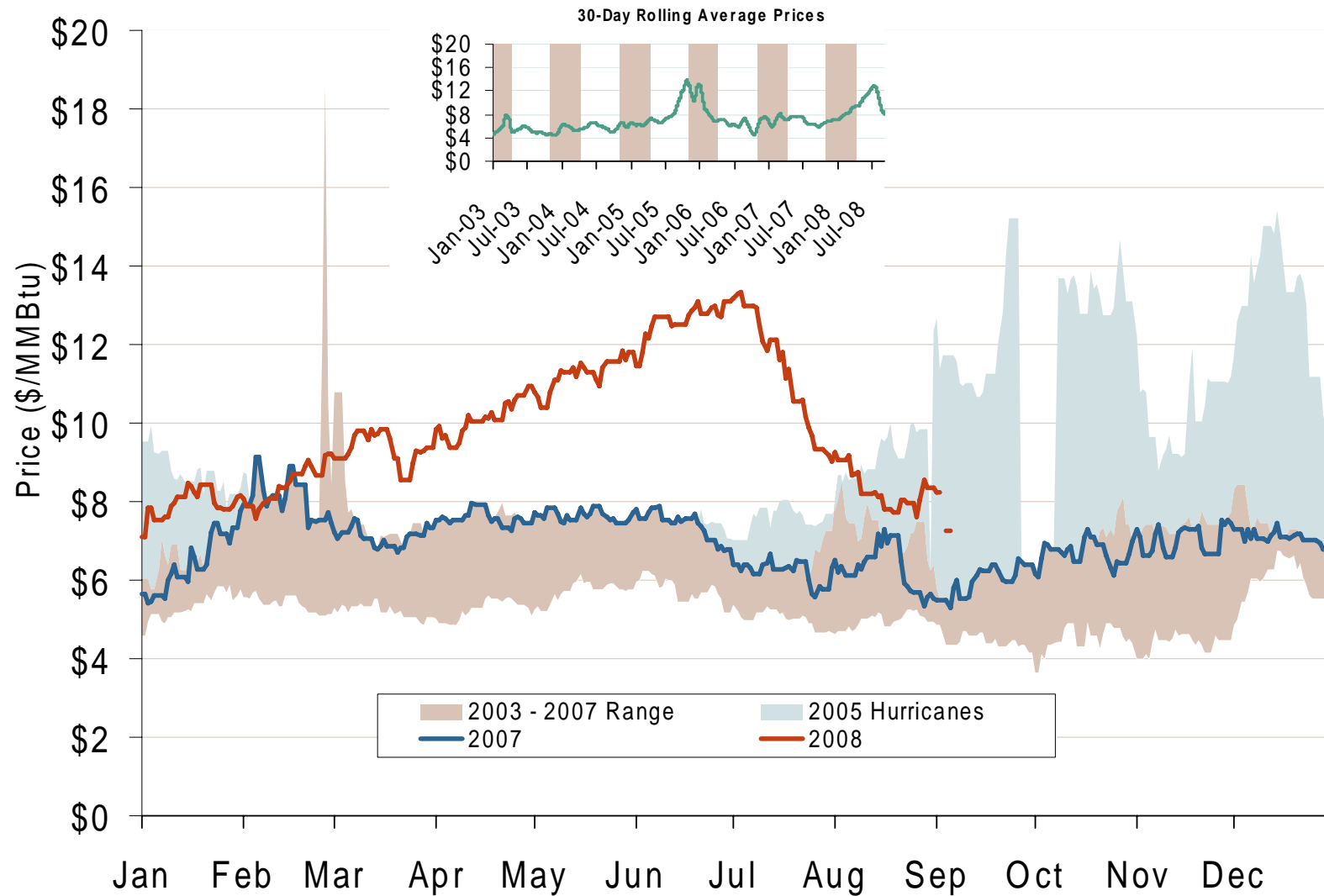
Office of Enforcement
Federal Energy Regulatory Commission
September 2008



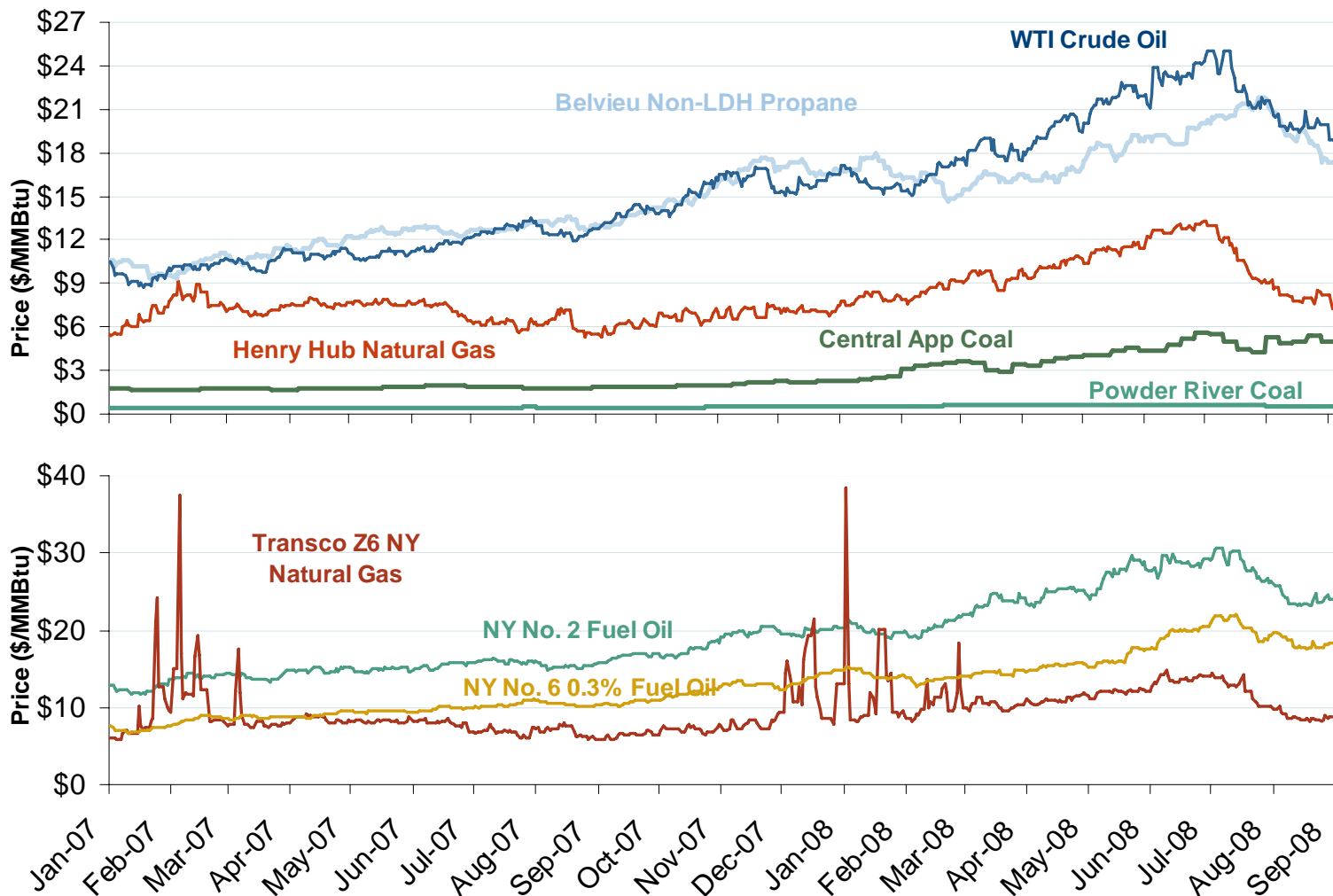
Special Report:

Natural Gas Price Decline II

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



Oil, Coal, Natural Gas and Propane Daily Spot Prices

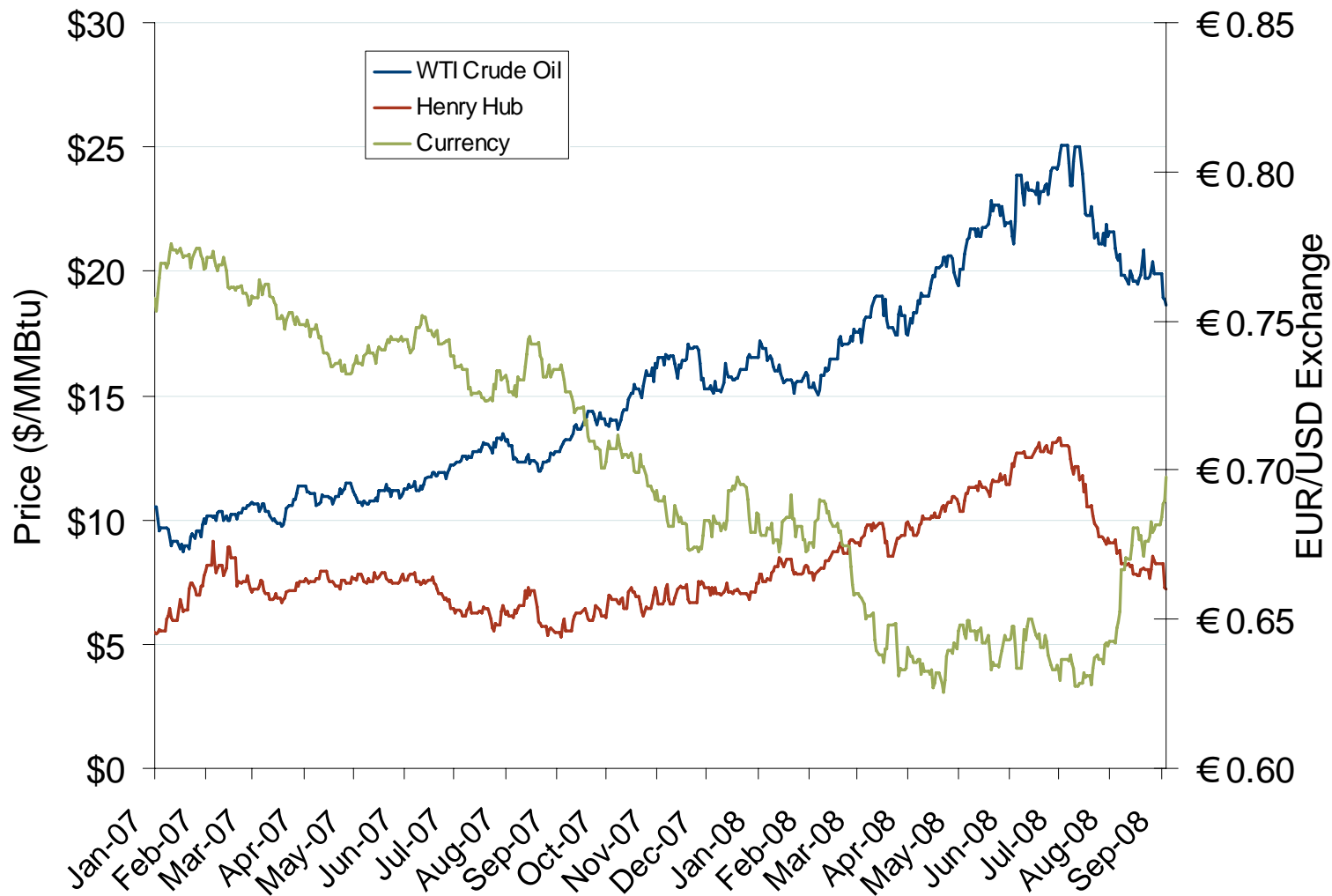


Source: Derived from ICE and Bloomberg data.

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.

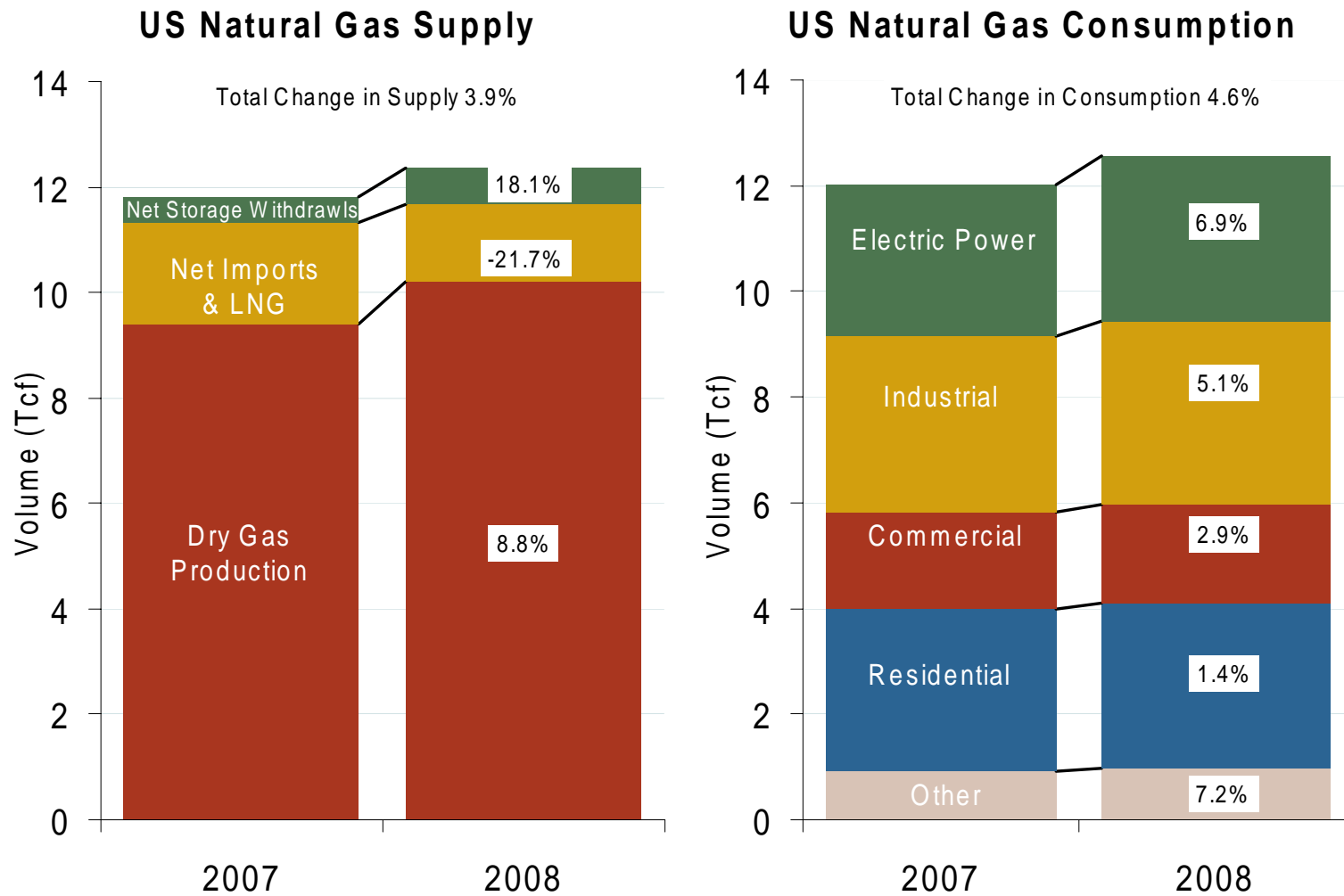
Updated September 5, 2008

Oil, Natural Gas and Currency Spot Prices



Source: Derived from *Bloomberg* data.
September 2008 National Snapshot Report

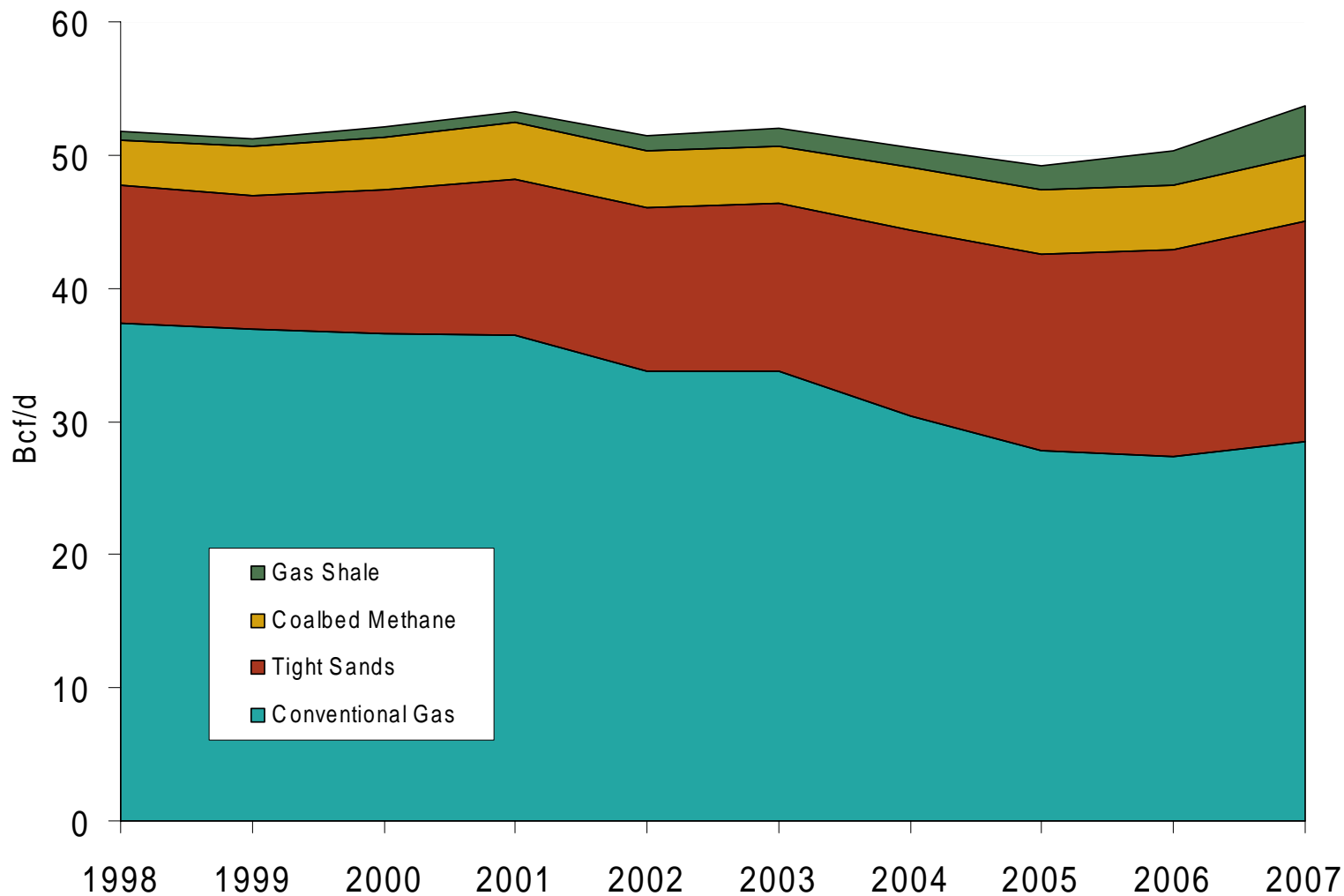
U.S. Natural Gas Supply and Consumption Jan-Jun



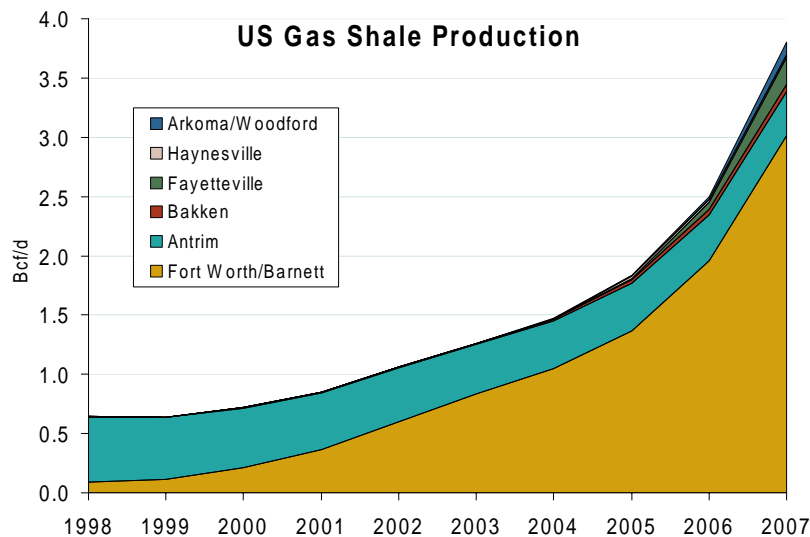
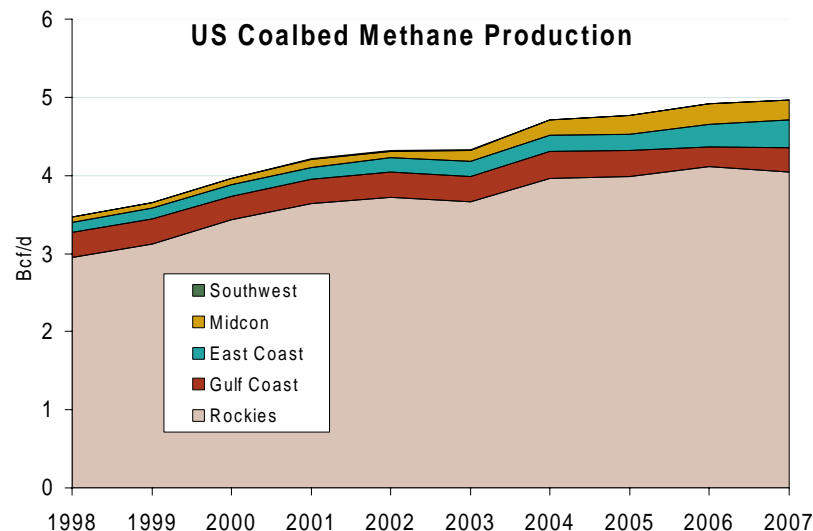
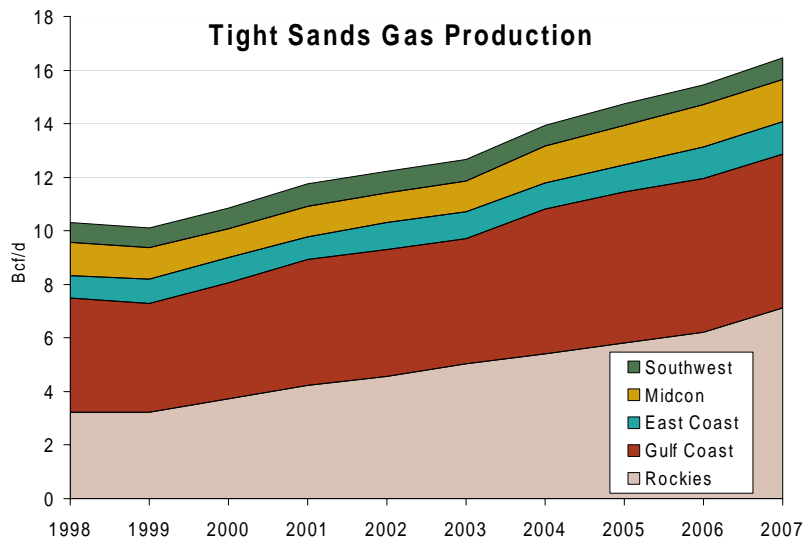
Major US Shale Basins



US Natural Gas Production

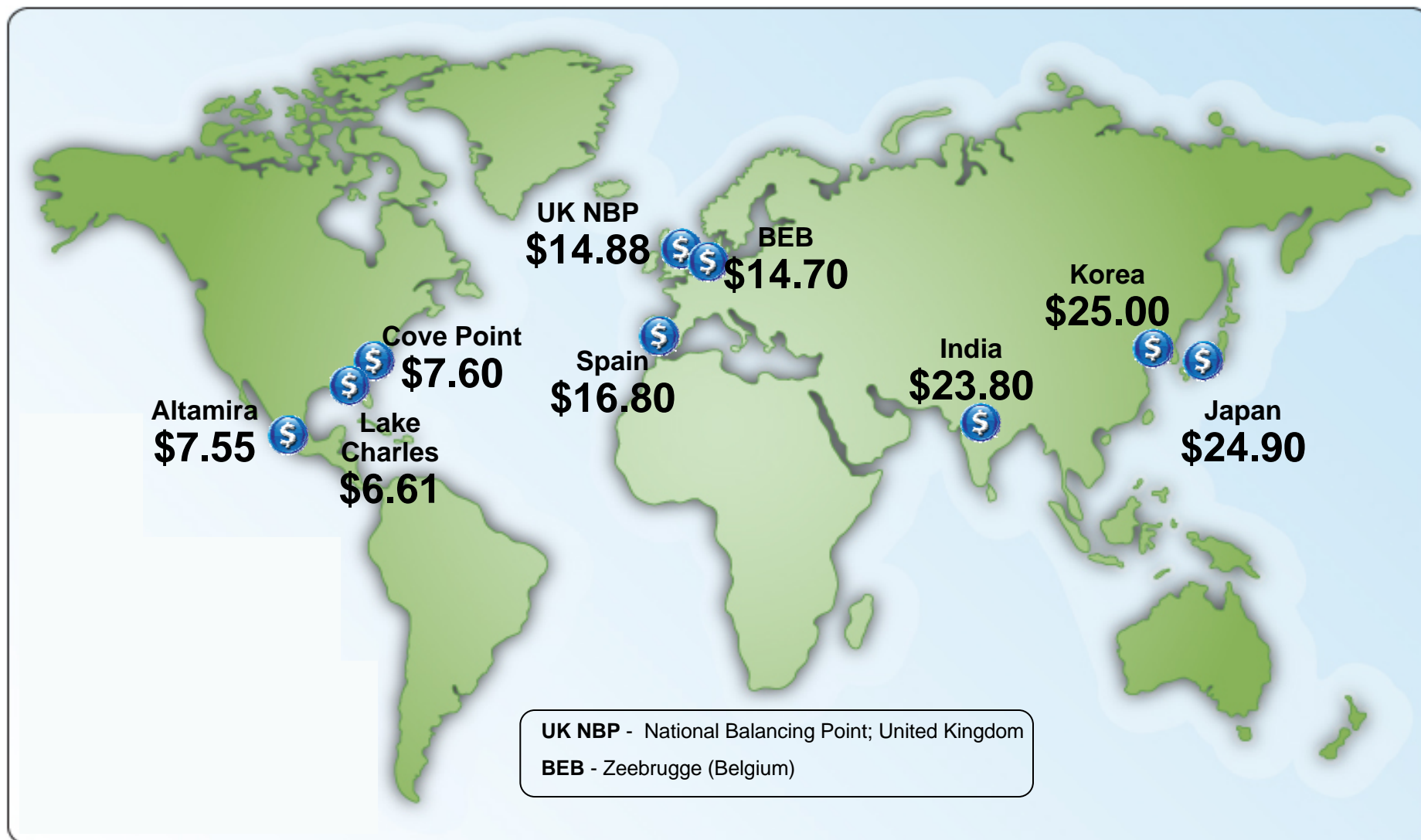


“Unconventional” Natural Gas Production



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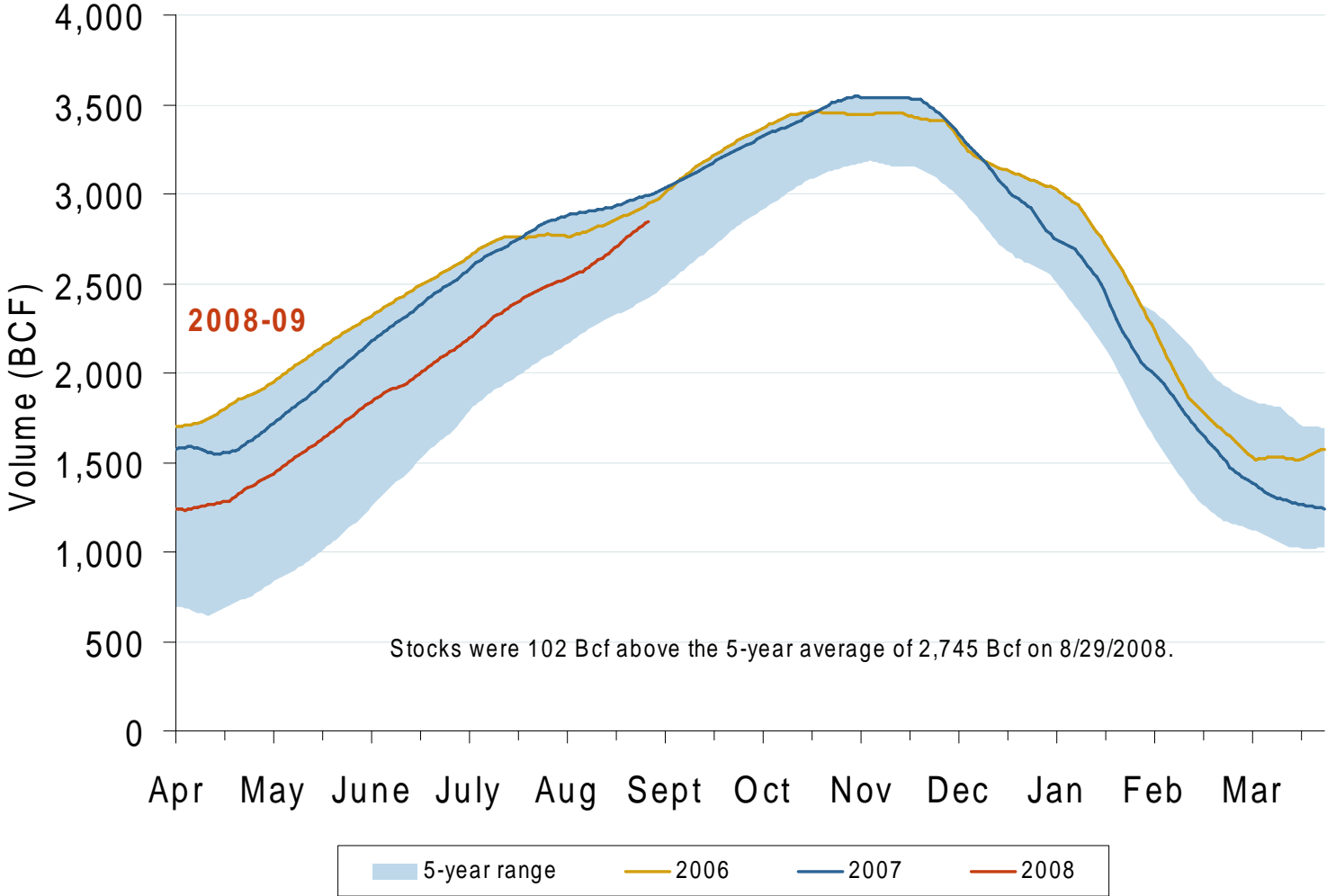
World LNG Landed Price Estimates for October 2008



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

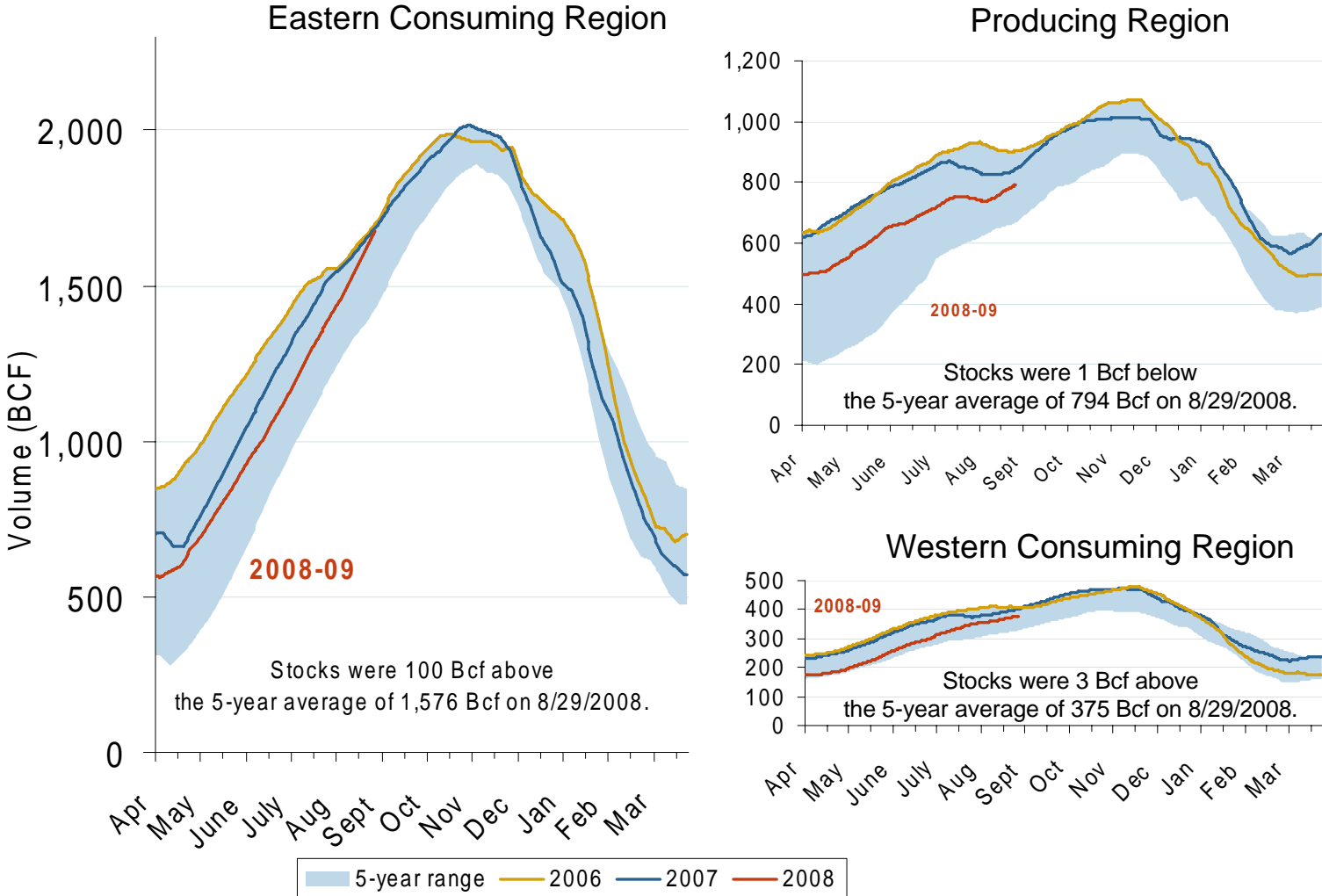
Updated September 5, 2008

Total U.S. Working Gas in Storage



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

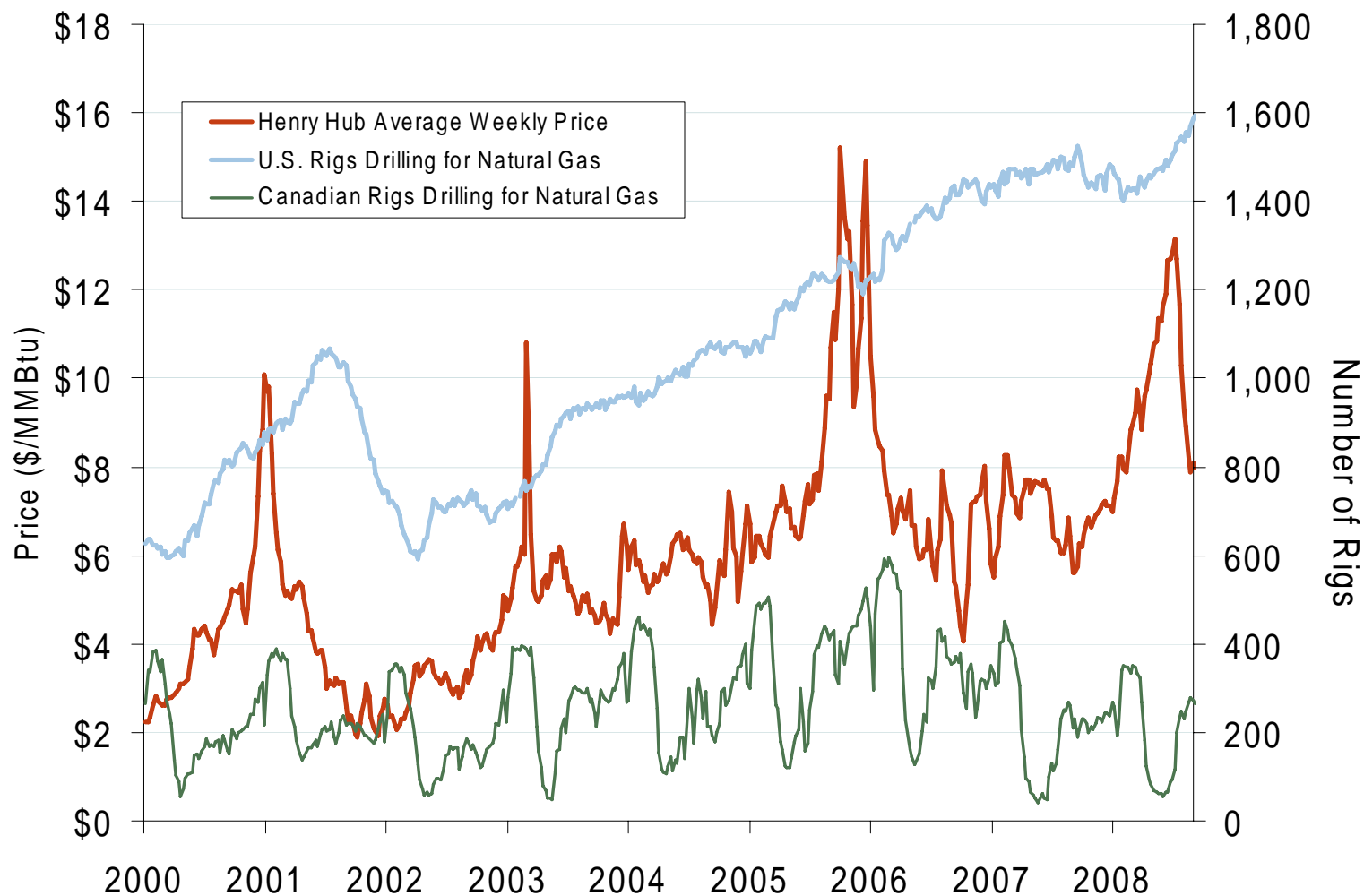
Regional Totals of Working Gas in Storage



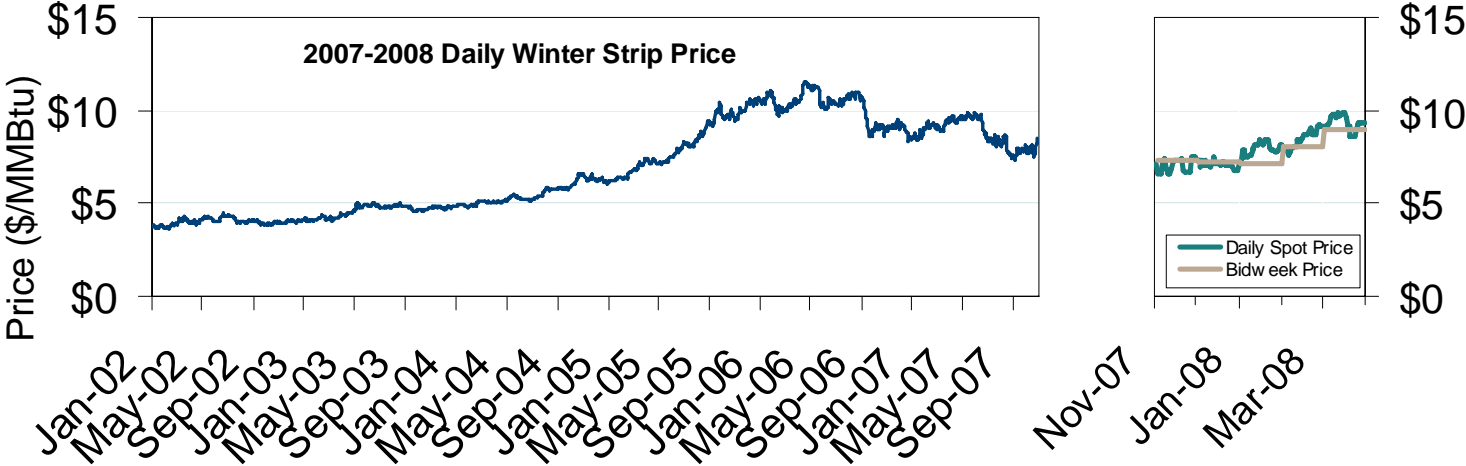
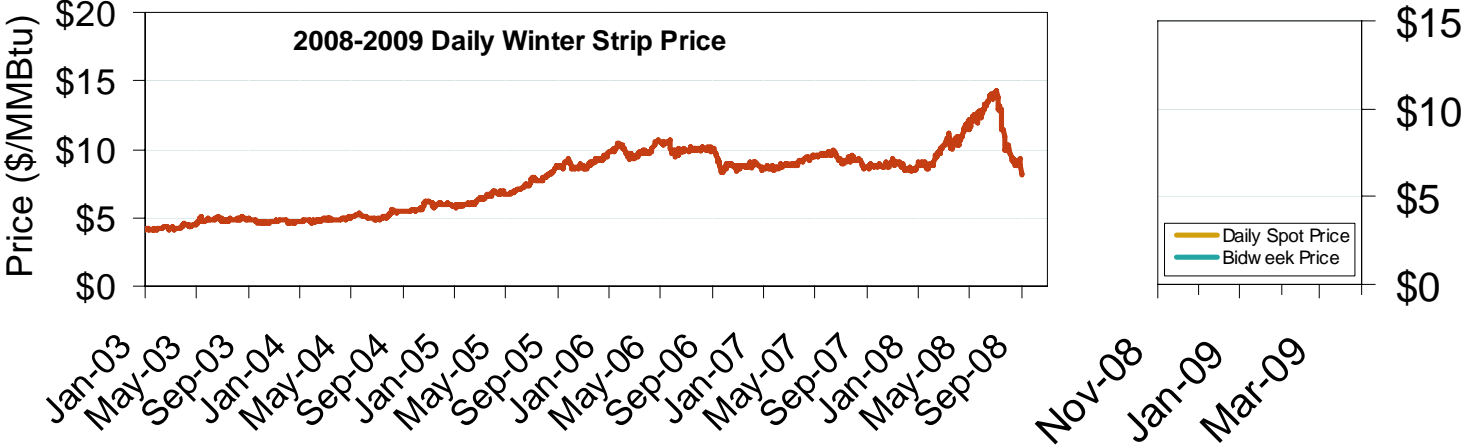
Source: Derived from EIA data. September 2008 National Snapshot Report

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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

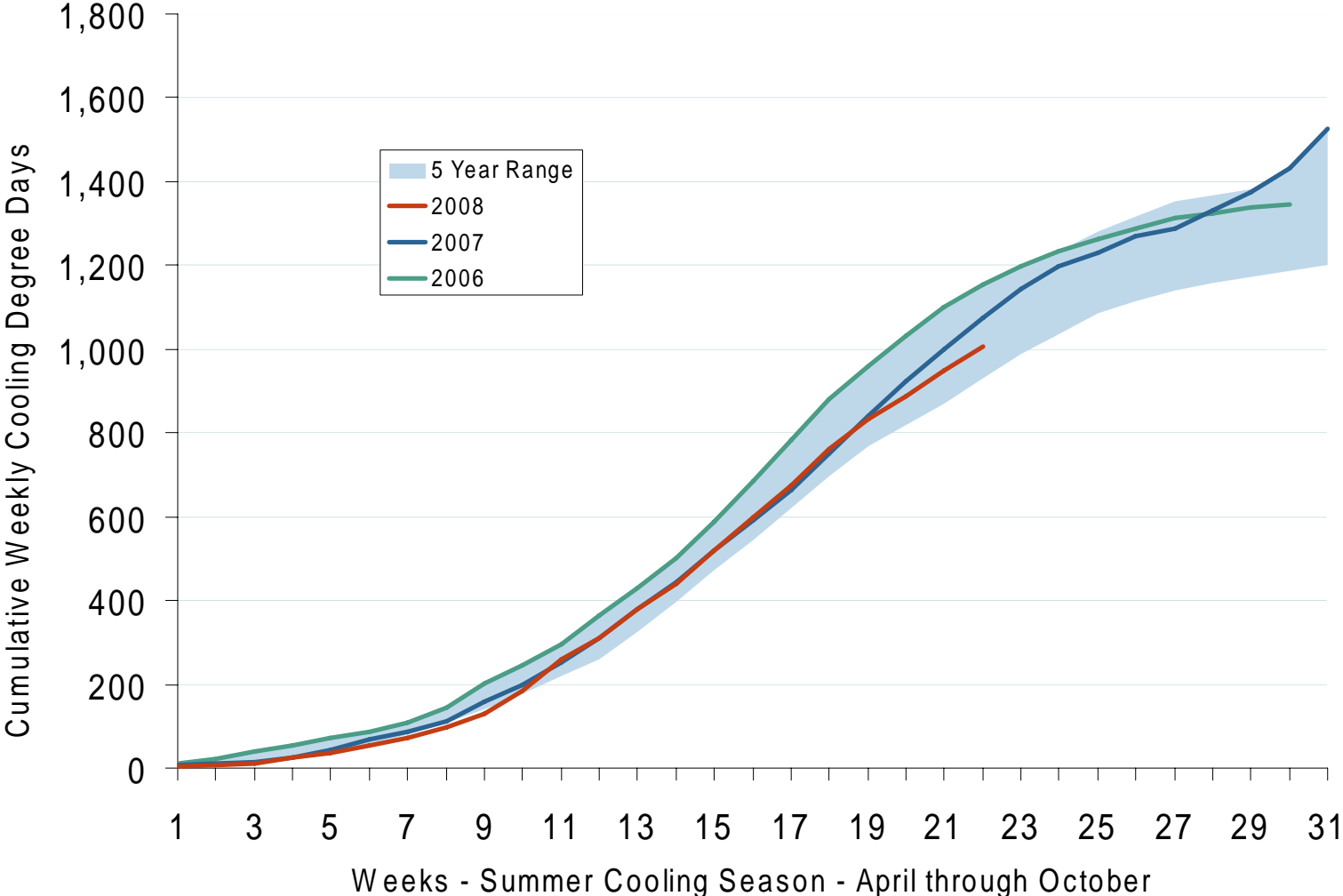


Source: Derived from *Platts* and *Nymex* data.
September 2008 National Snapshot Report



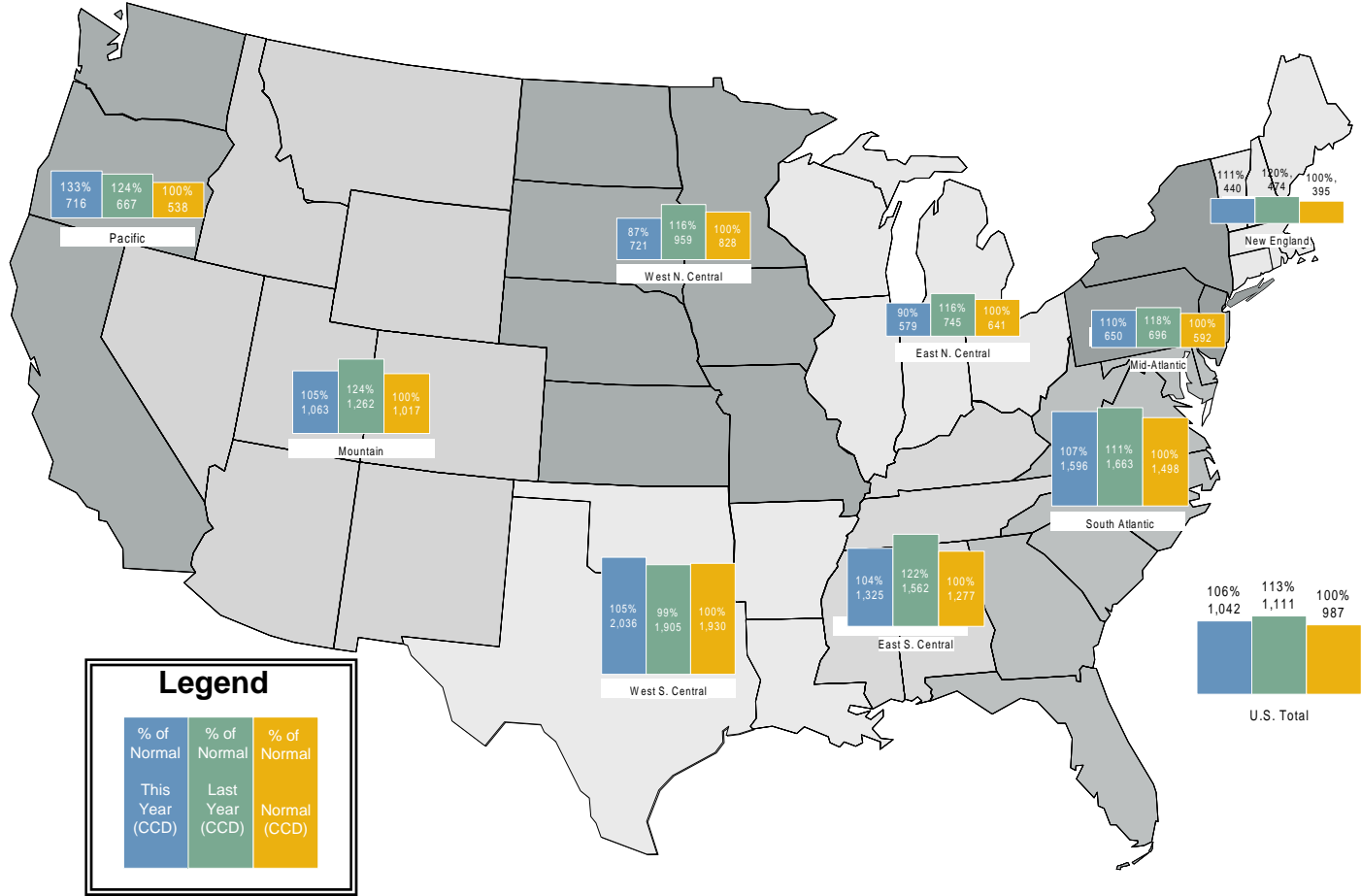
Market Fundamentals

U. S. Summer Cumulative Cooling Degree Days



Source: Derived from NOAA data.

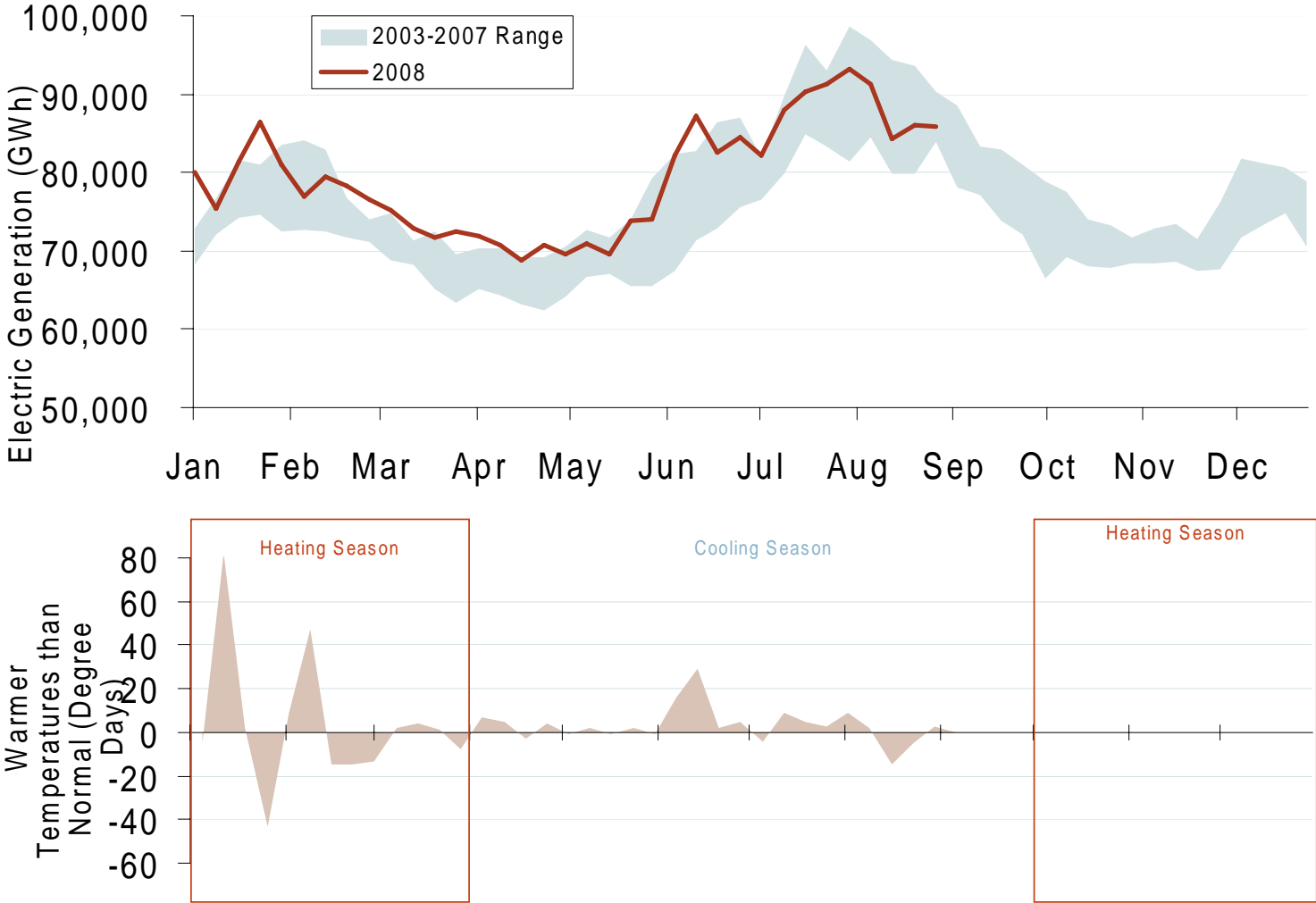
Regional Cooling Degree Days 2008 Through August



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

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Weekly U.S. Electric Generation Output and Temperatures



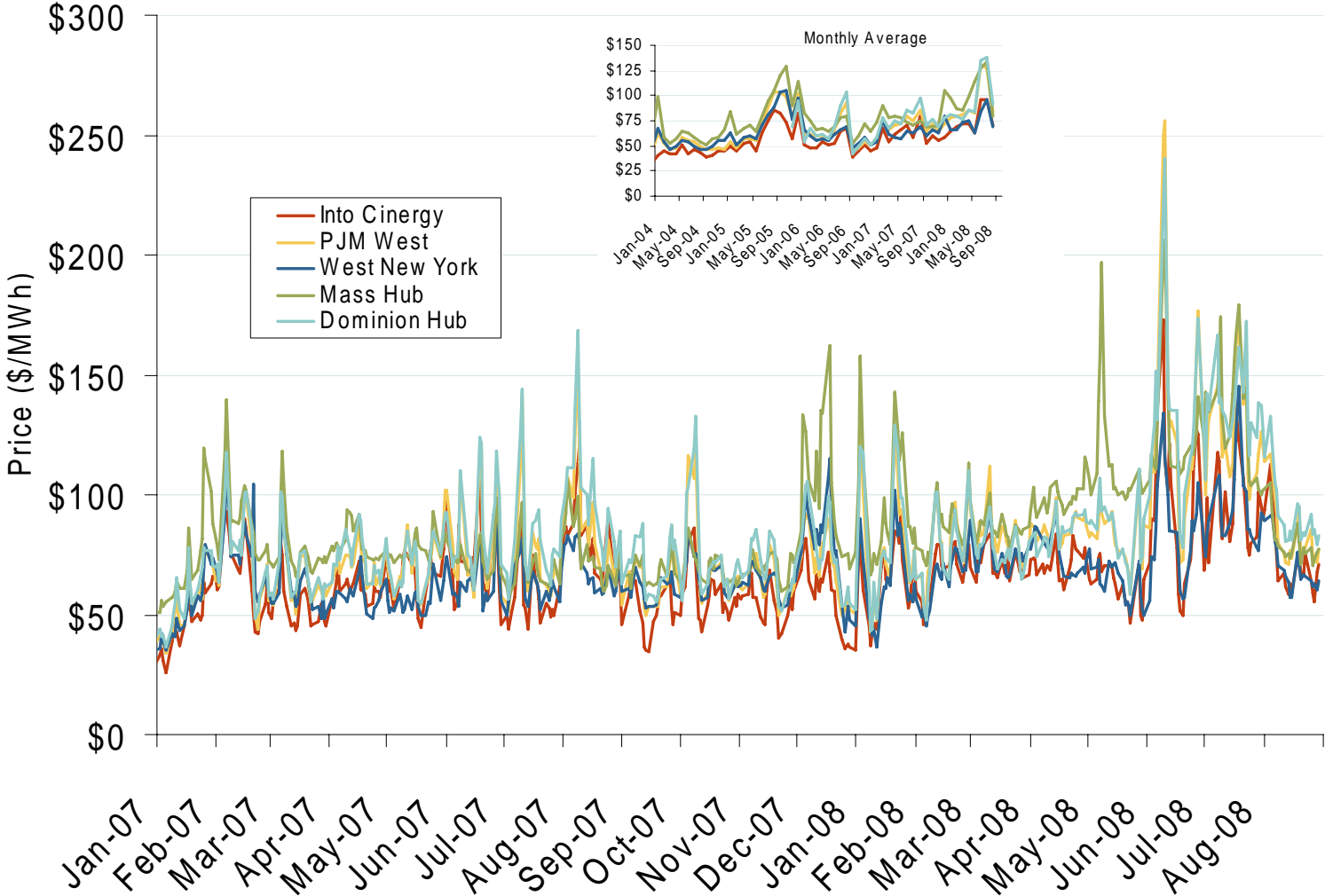
Source: Derived from *EI* and *NOAA* data.
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Prices and Market Analysis

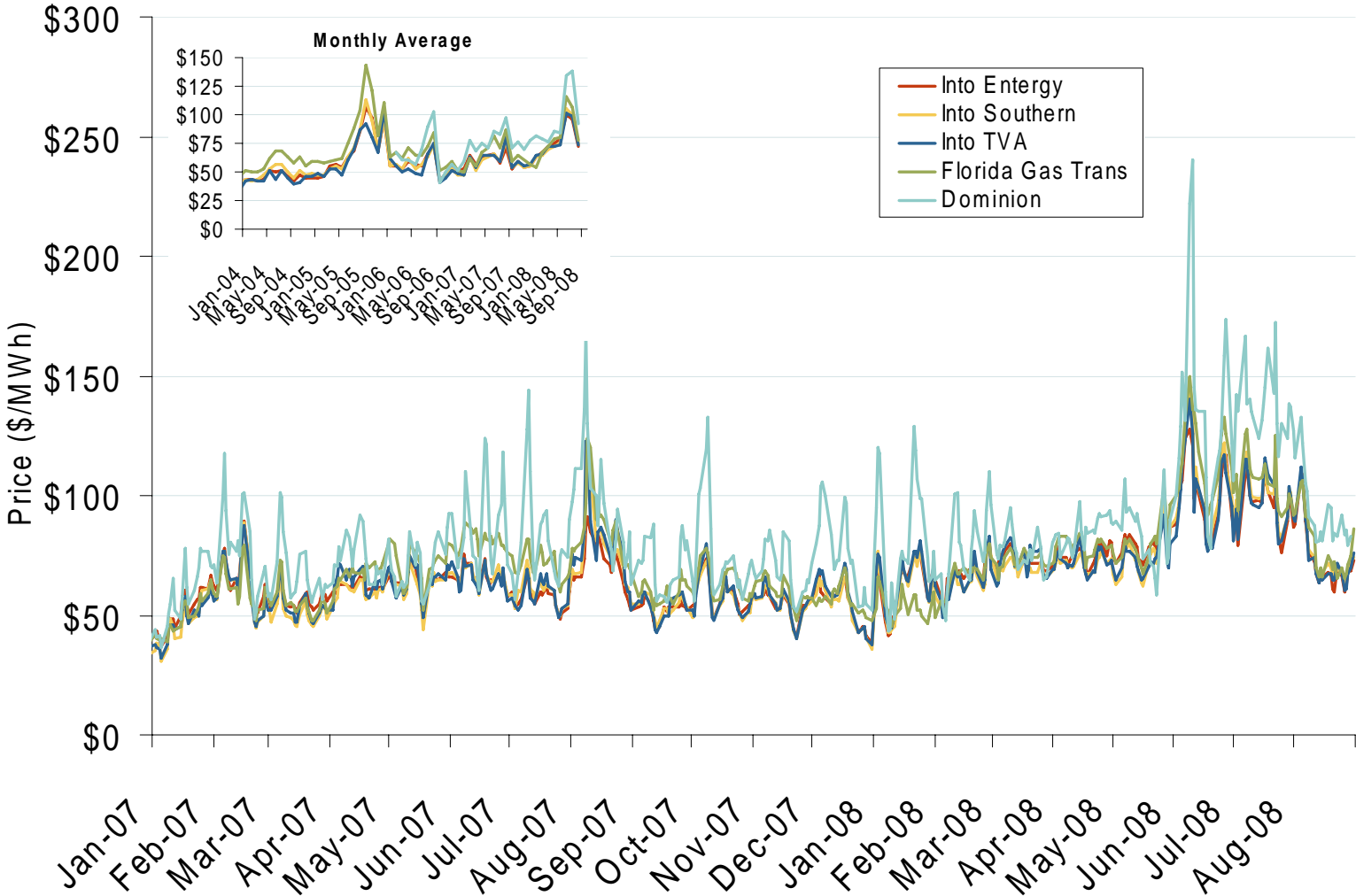
- **Electric**
- **Natural Gas**
- **Other Markets**

Eastern Daily Bilateral Day-Ahead On-Peak Prices



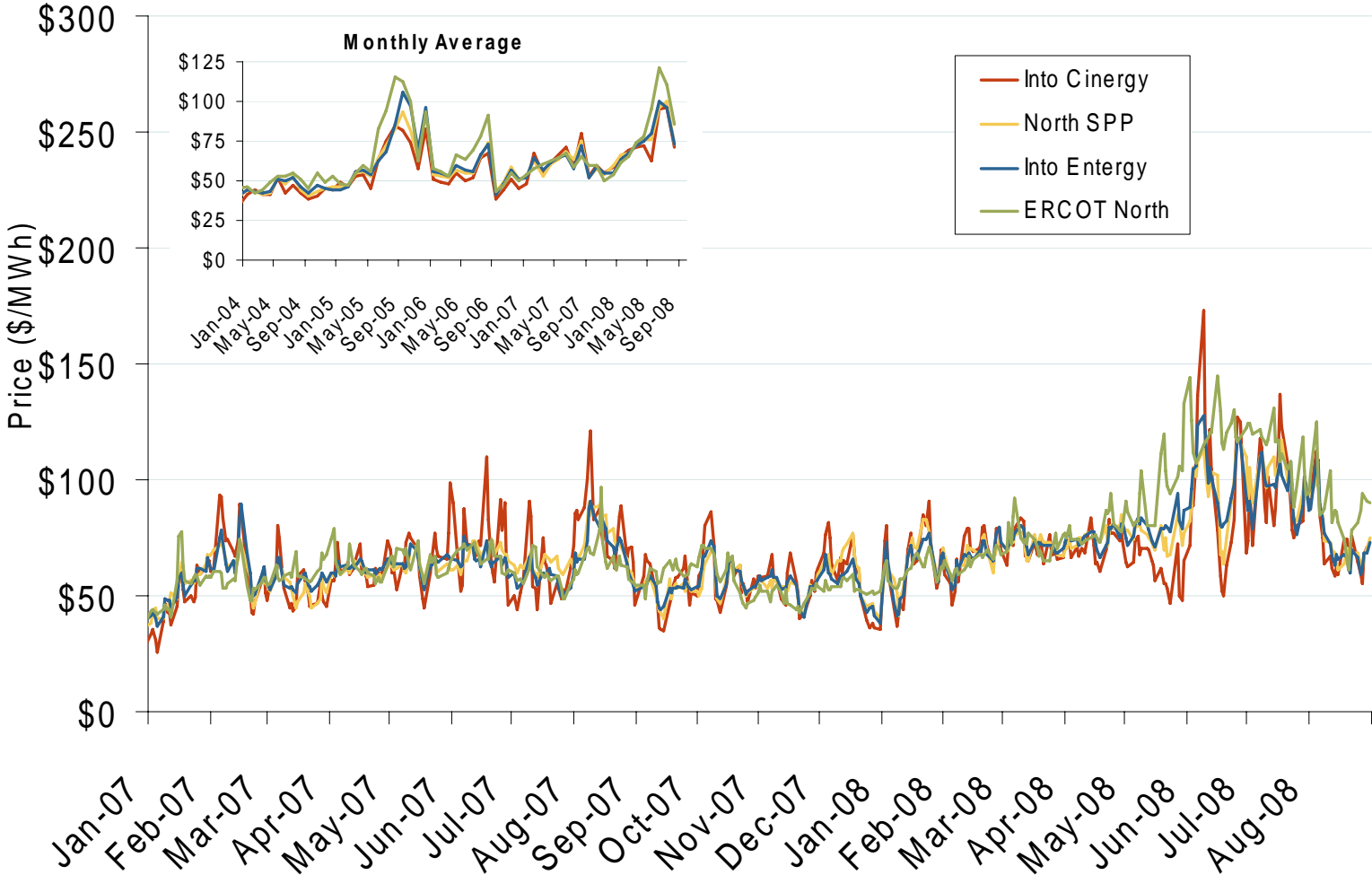
Source: Derived from *Platts* data.
September 2008 National Snapshot Report

Southeastern Daily Bilateral Day-Ahead On-Peak Prices



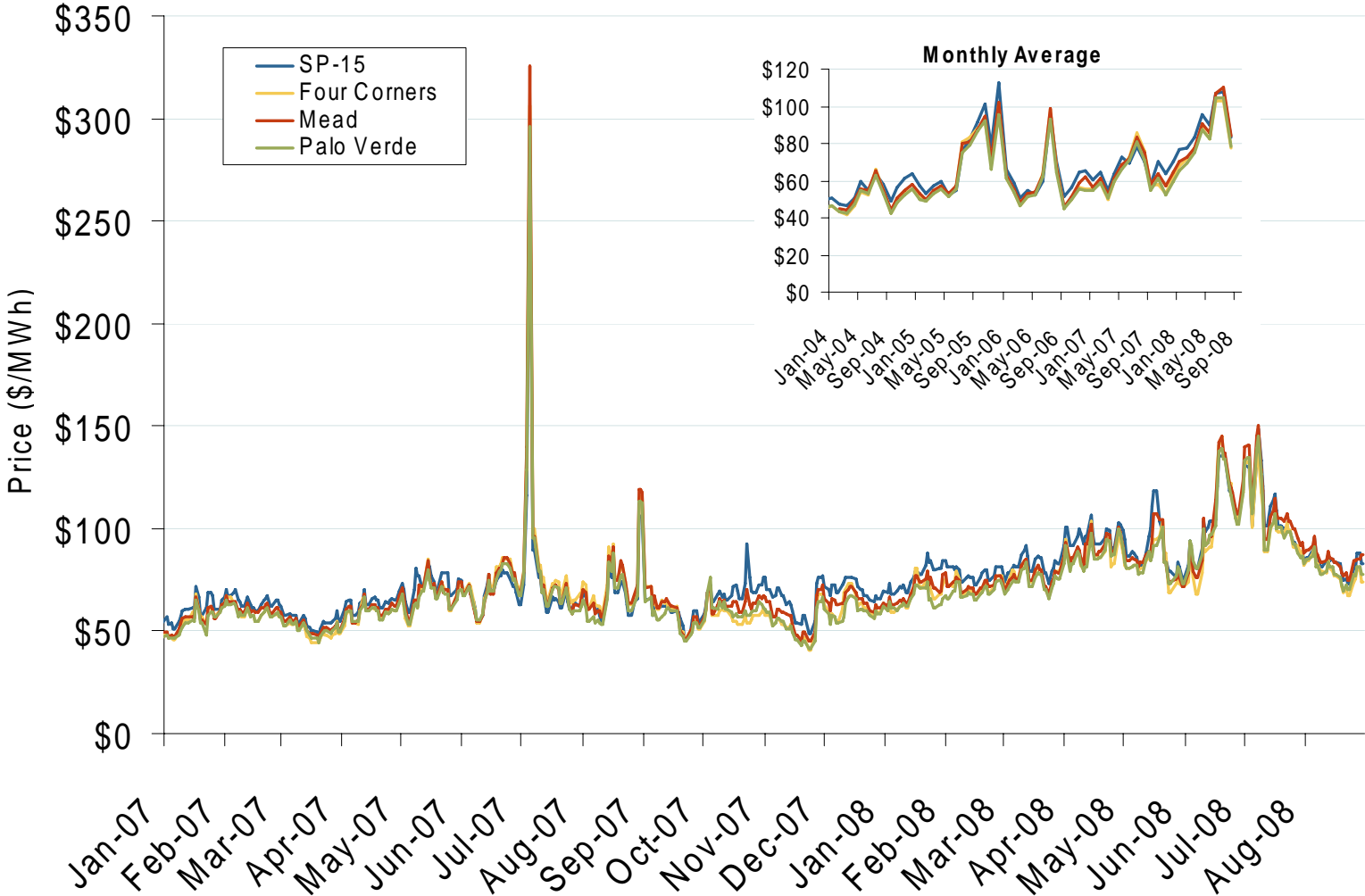
Source: Derived from *Platts* data.
September 2008 National Snapshot Report

Central Daily Bilateral Day-Ahead On-Peak Prices



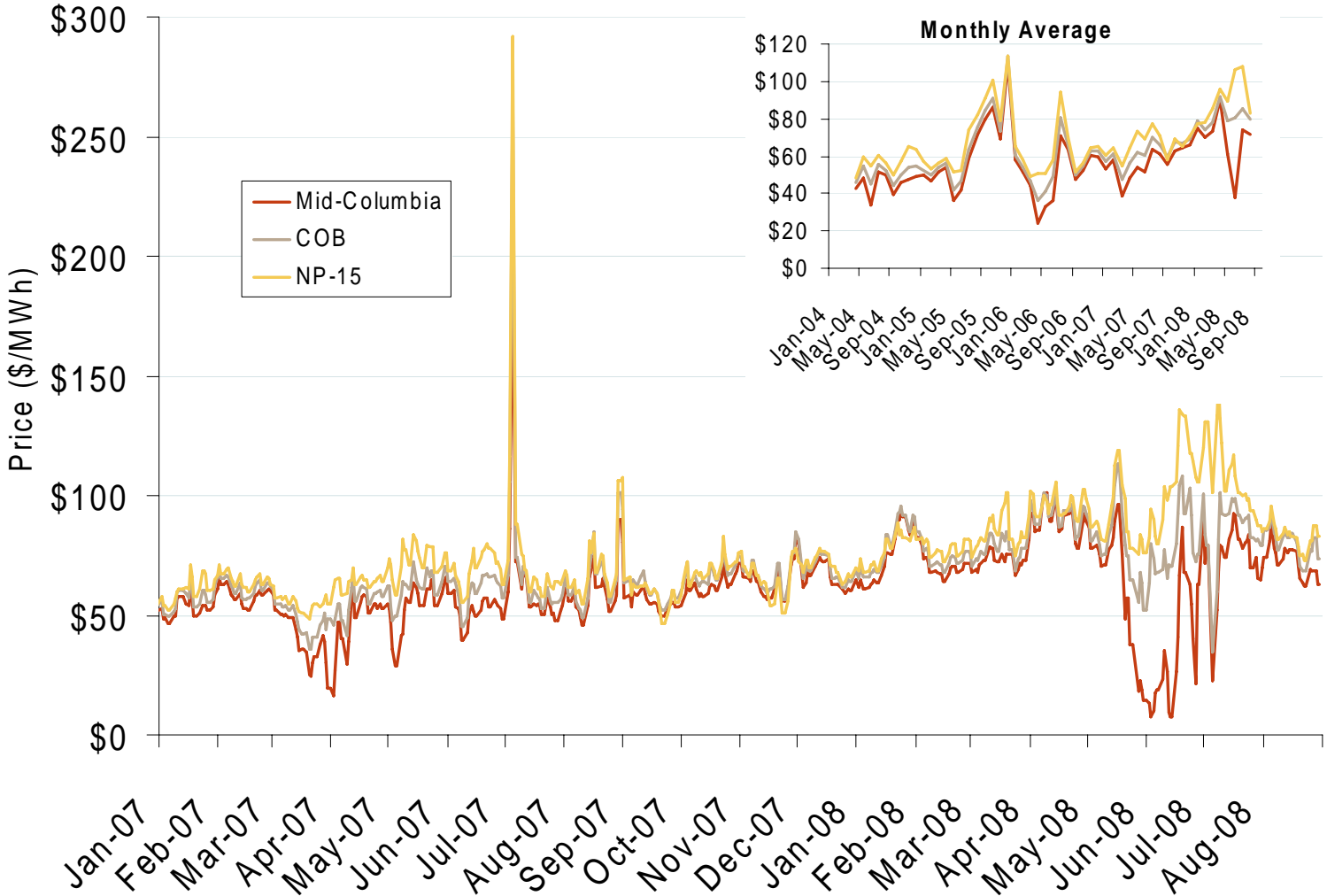
Source: Derived from *Platts* data.
September 2008 National Snapshot Report

Southwestern Daily Bilateral Day-Ahead On-Peak Prices



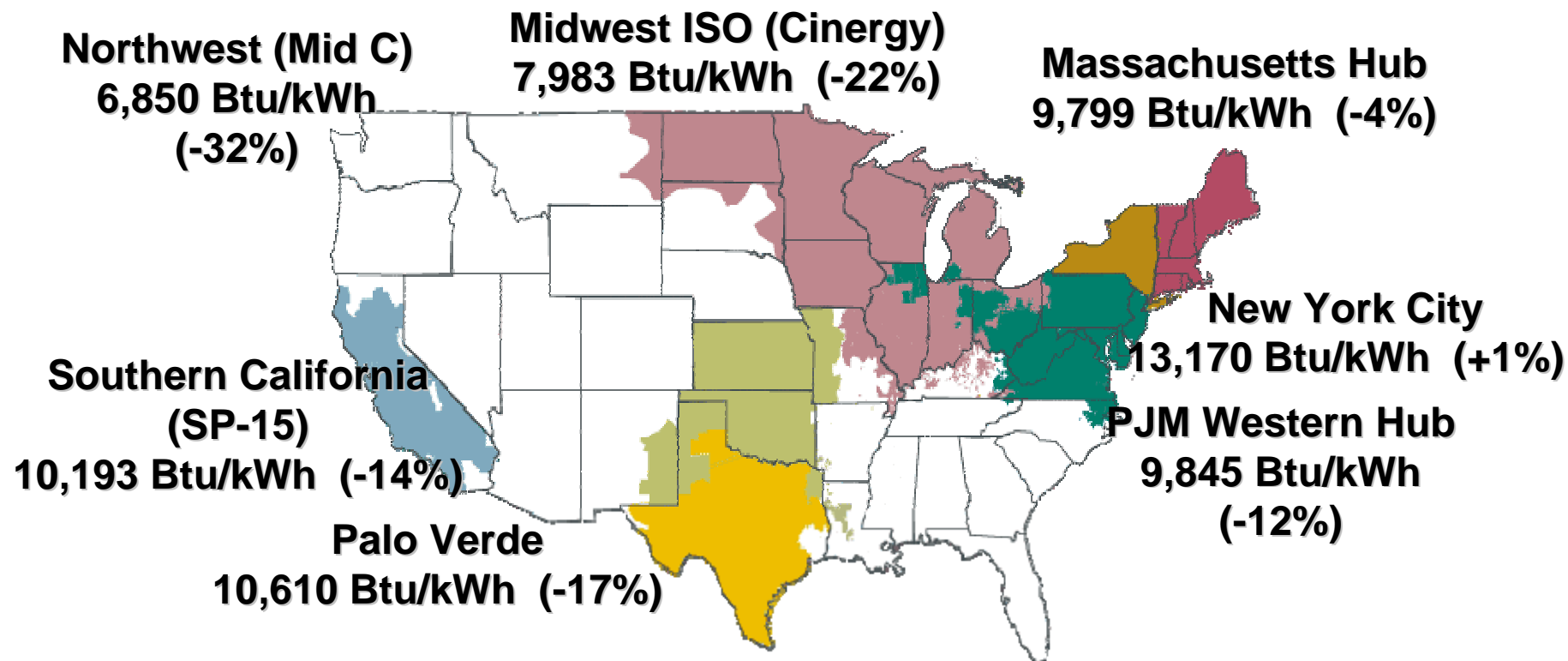
Source: Derived from *Platts* data.
September 2008 National Snapshot Report

Northwestern Daily Bilateral Day-Ahead On-Peak Prices

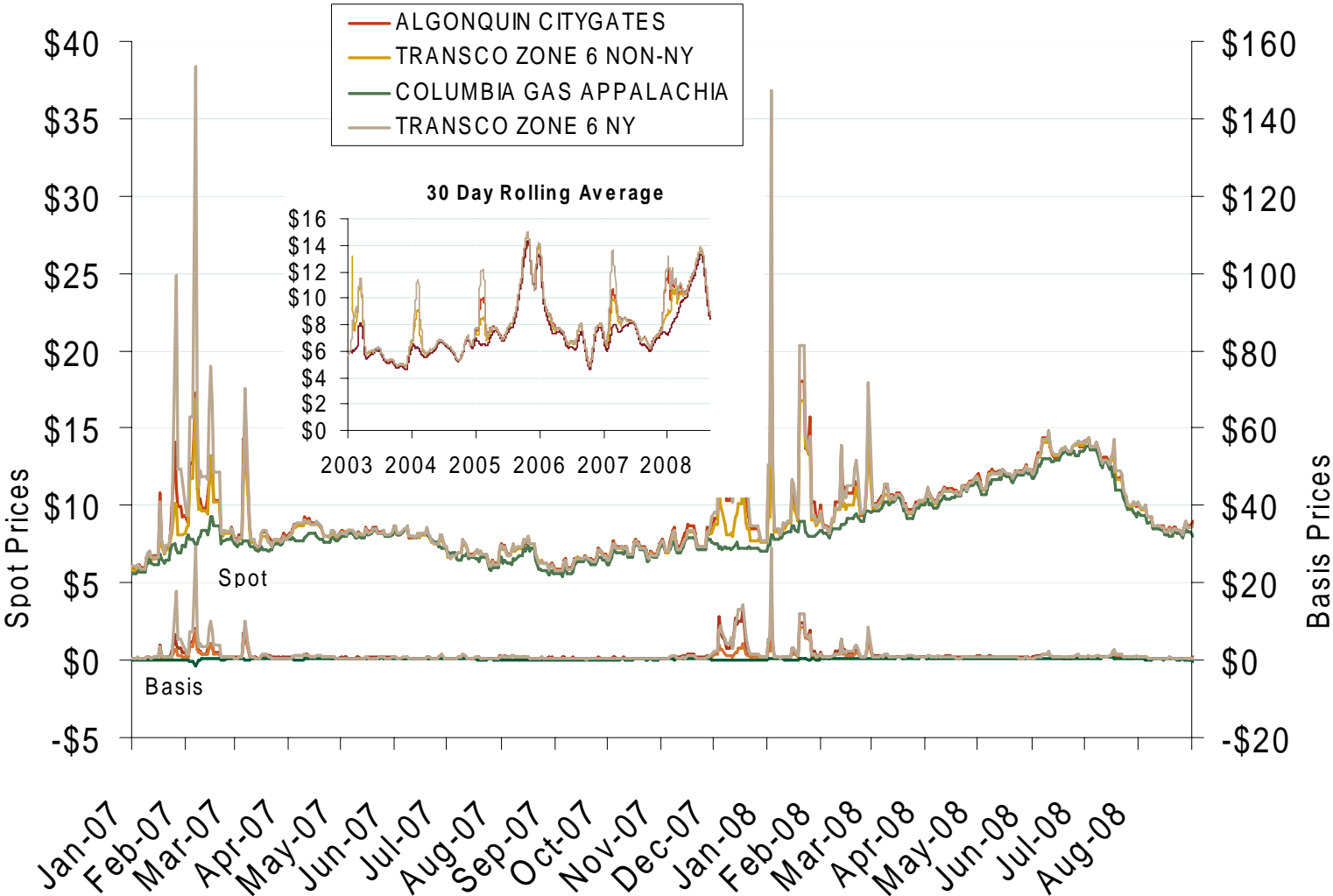


Source: Derived from *Platts* data.
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June-August Implied Heat Rates, 2008 vs. 2007



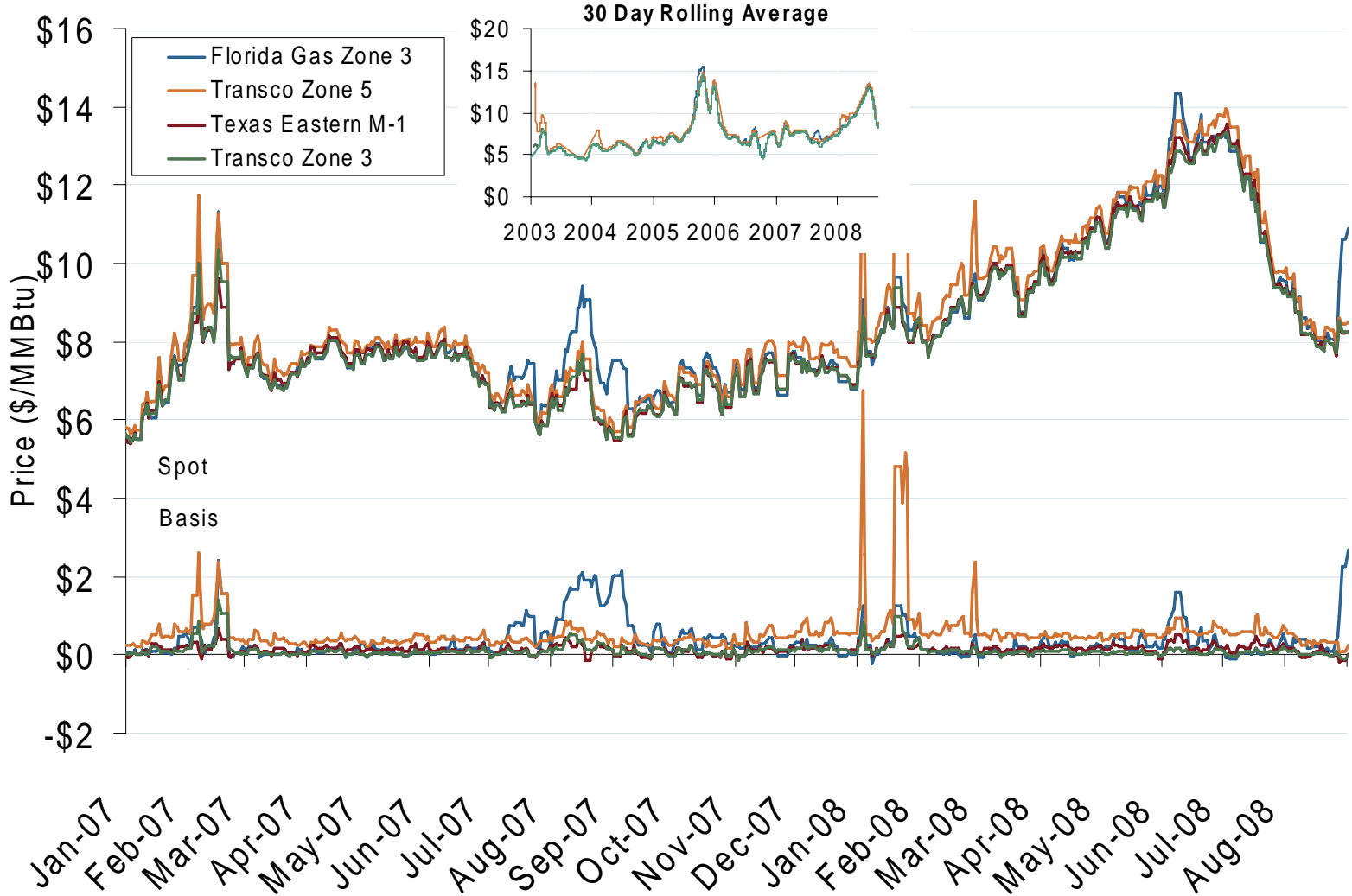
Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.
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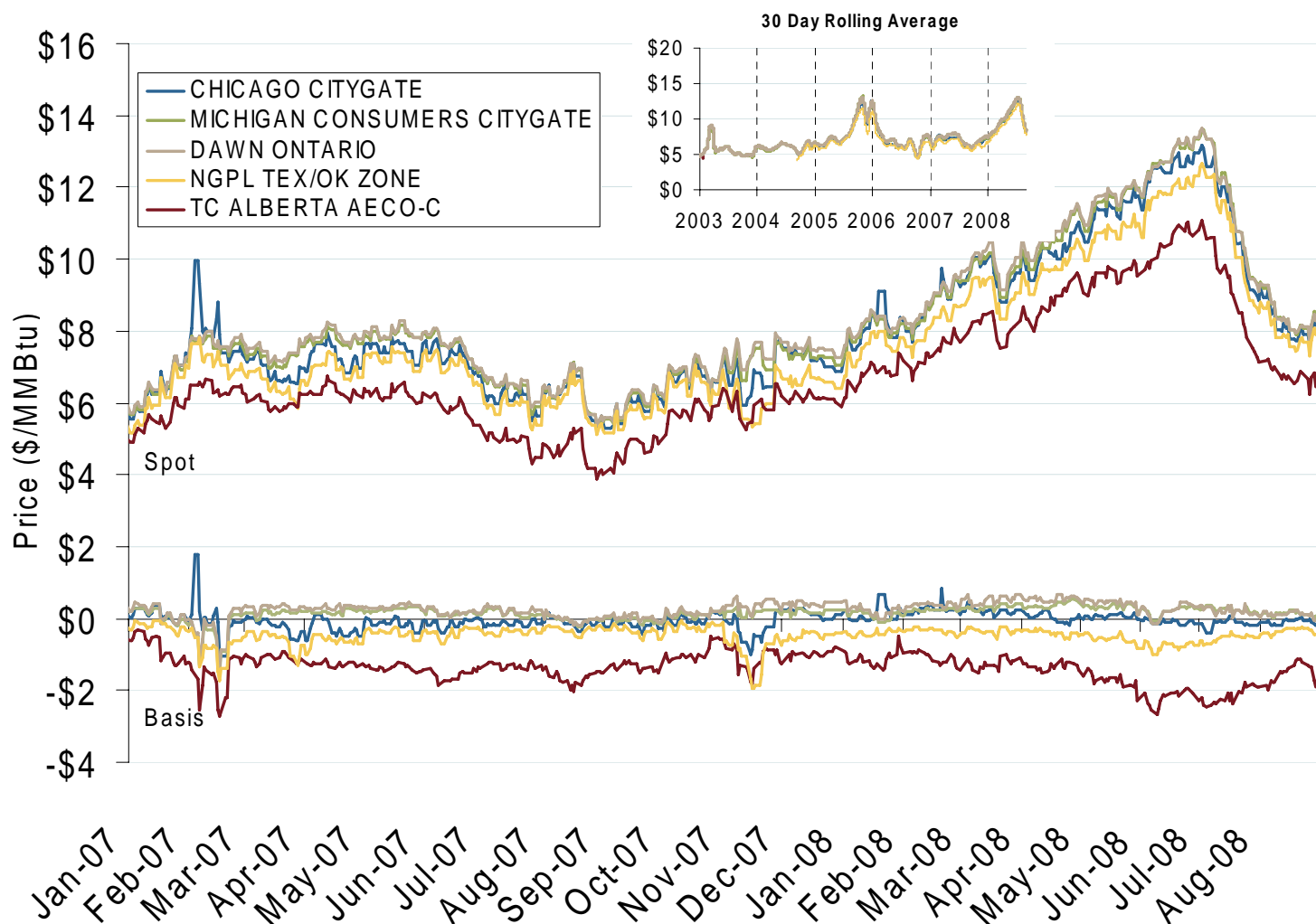
Updated September 5, 2008₂₀₃₀

Southeastern Day-Ahead Hub Spot Prices and Basis

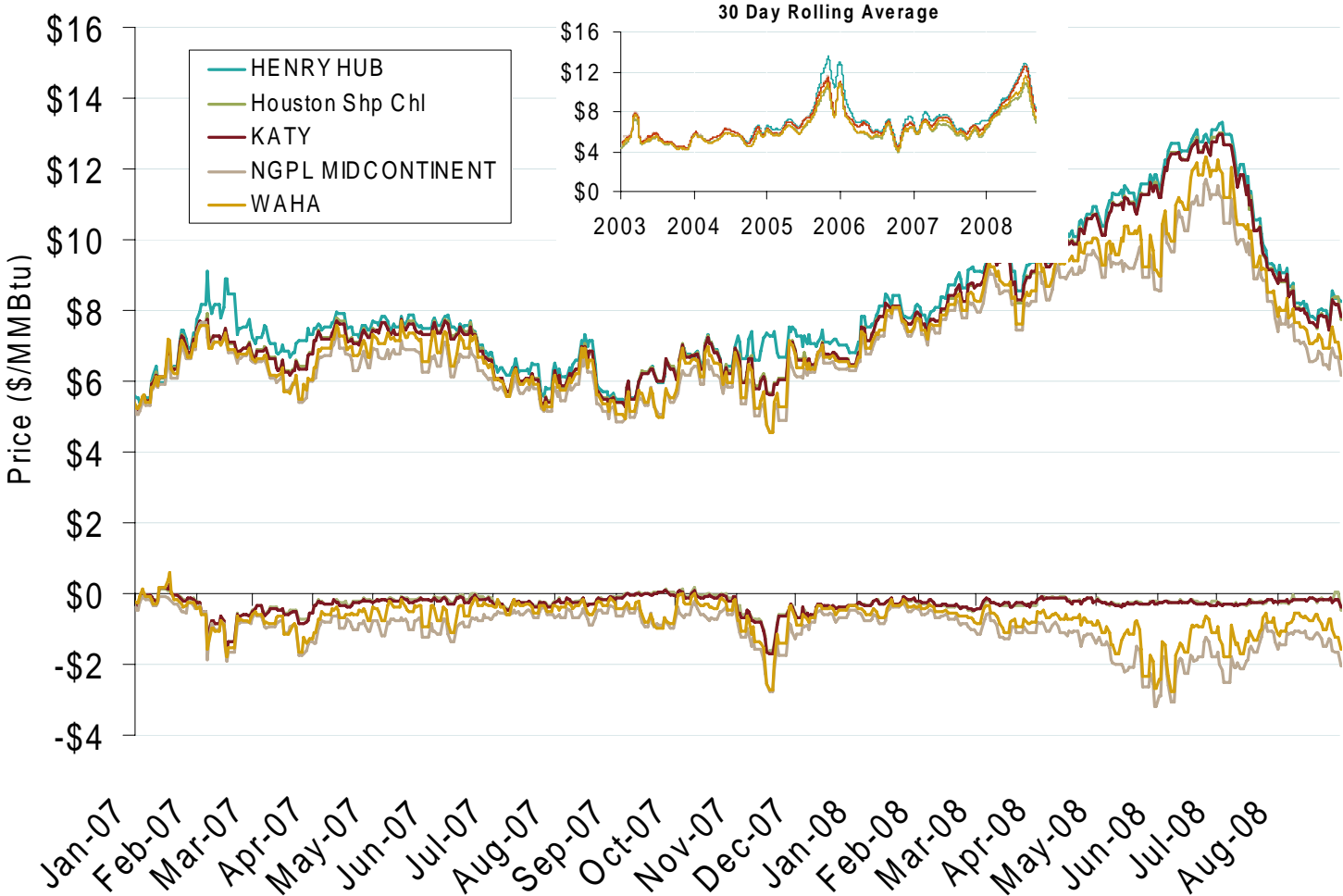


Source: Derived from Platts data.
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Midwestern Day-Ahead Hub Spot Prices and Basis

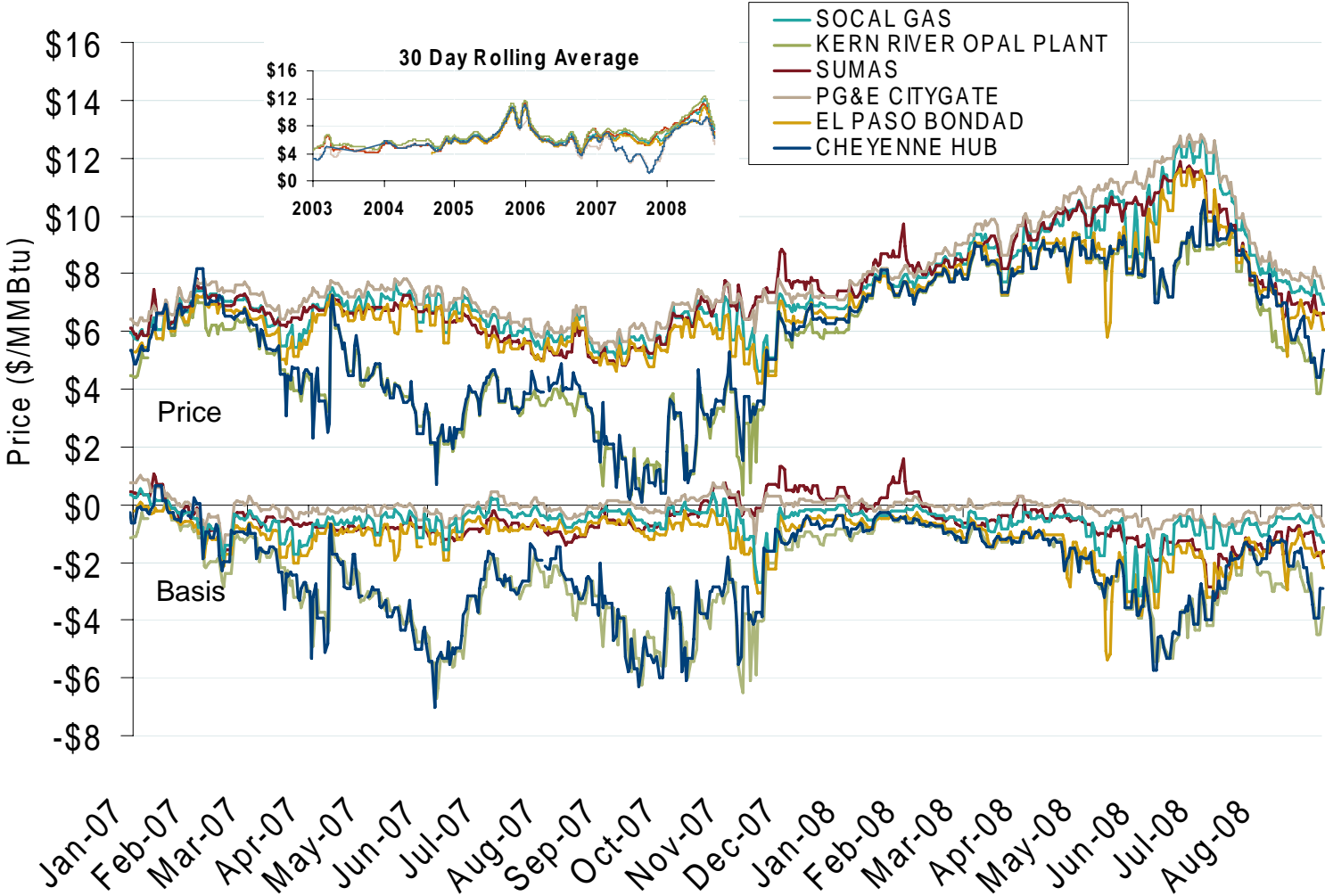


South Central Day-Ahead Hub Spot Prices and Basis



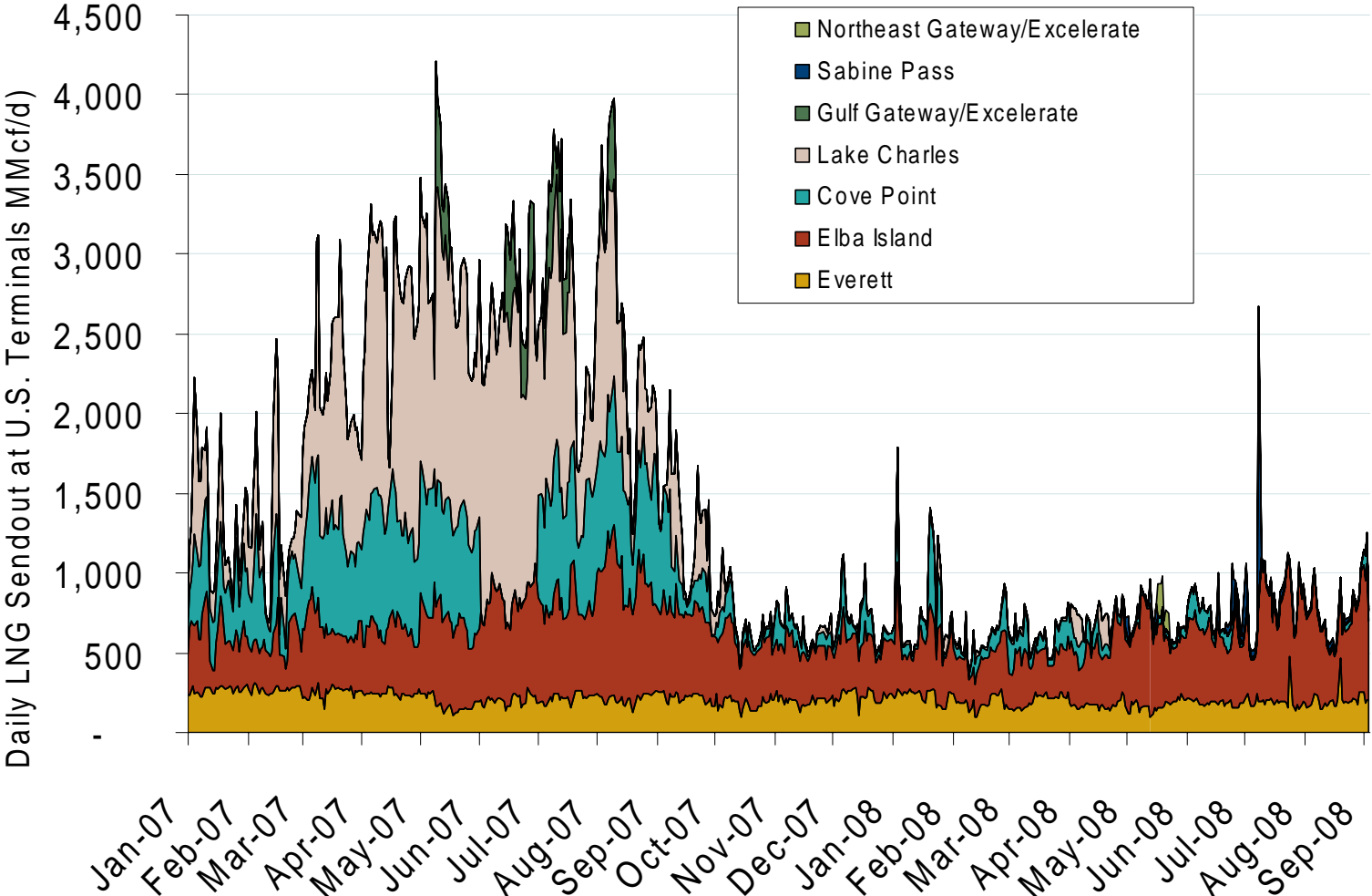
Source: Derived from *Platts* data.
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Western Day-Ahead Hub Spot Prices and Basis



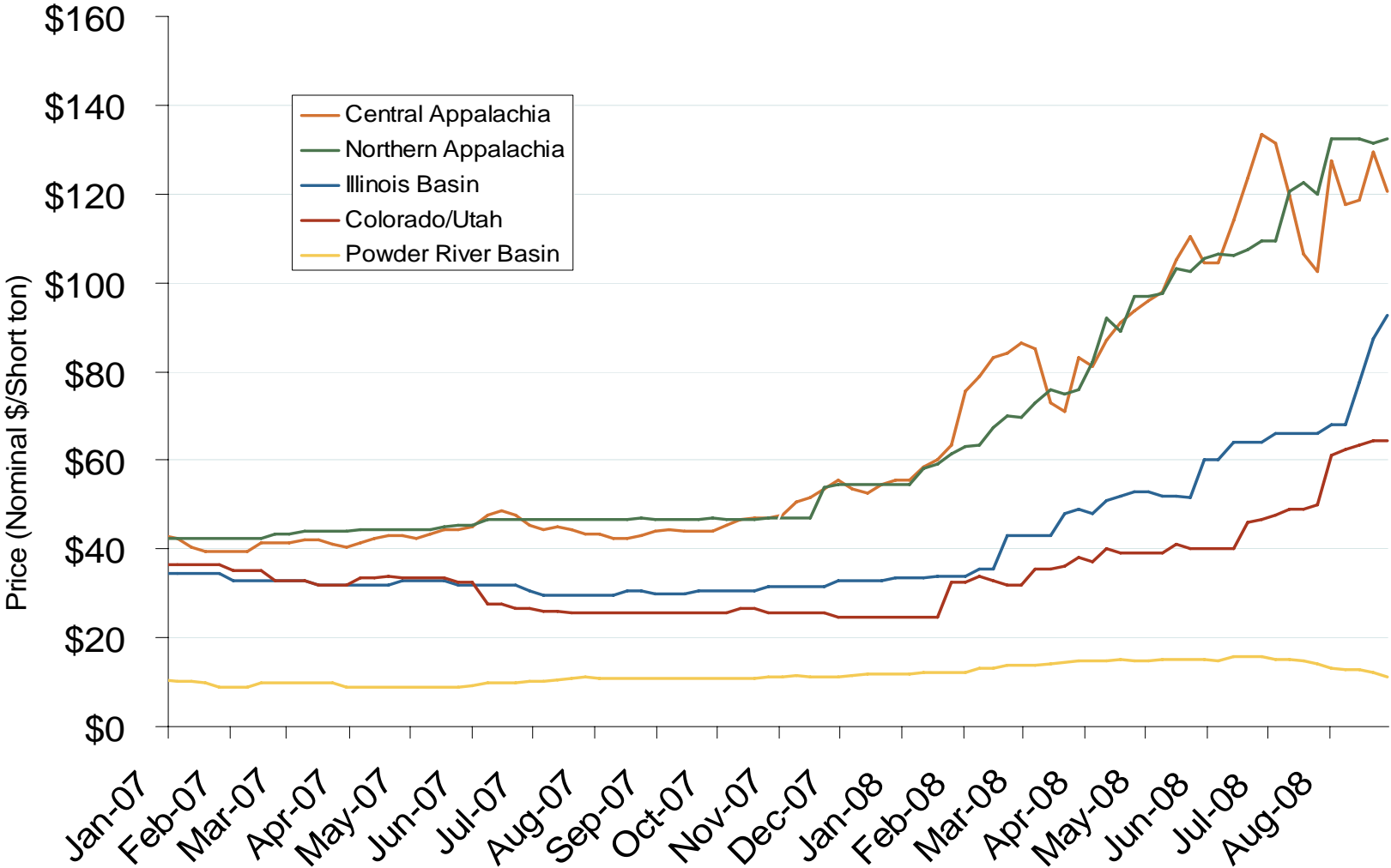
Source: Derived from *Platts* data.
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Daily Gas Sendout from Existing U.S. LNG Facilities



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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Regional Coal Spot Prices

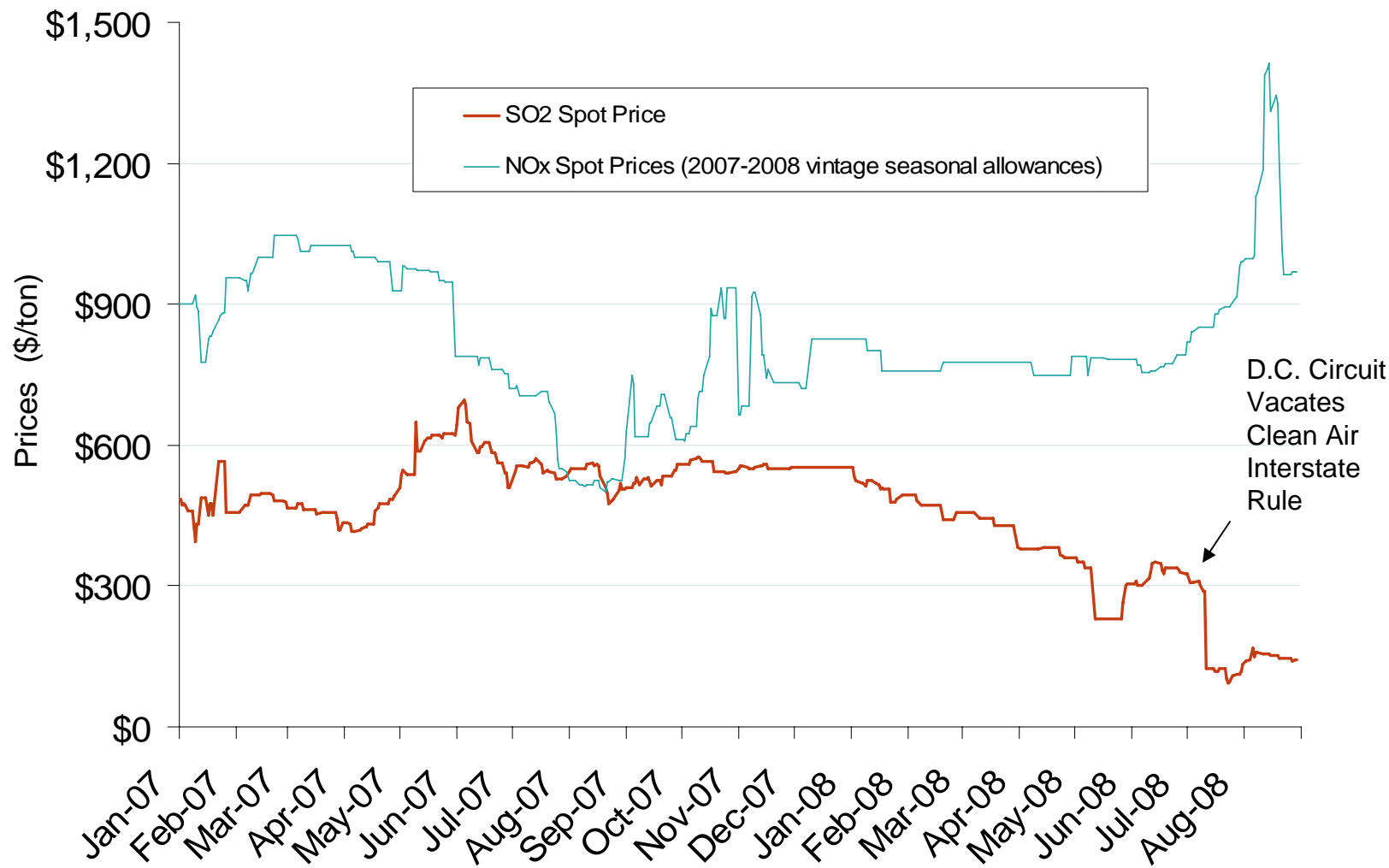


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

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)

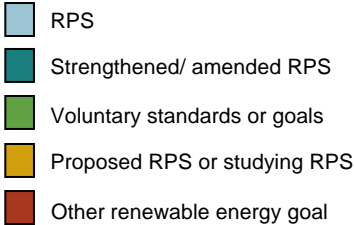
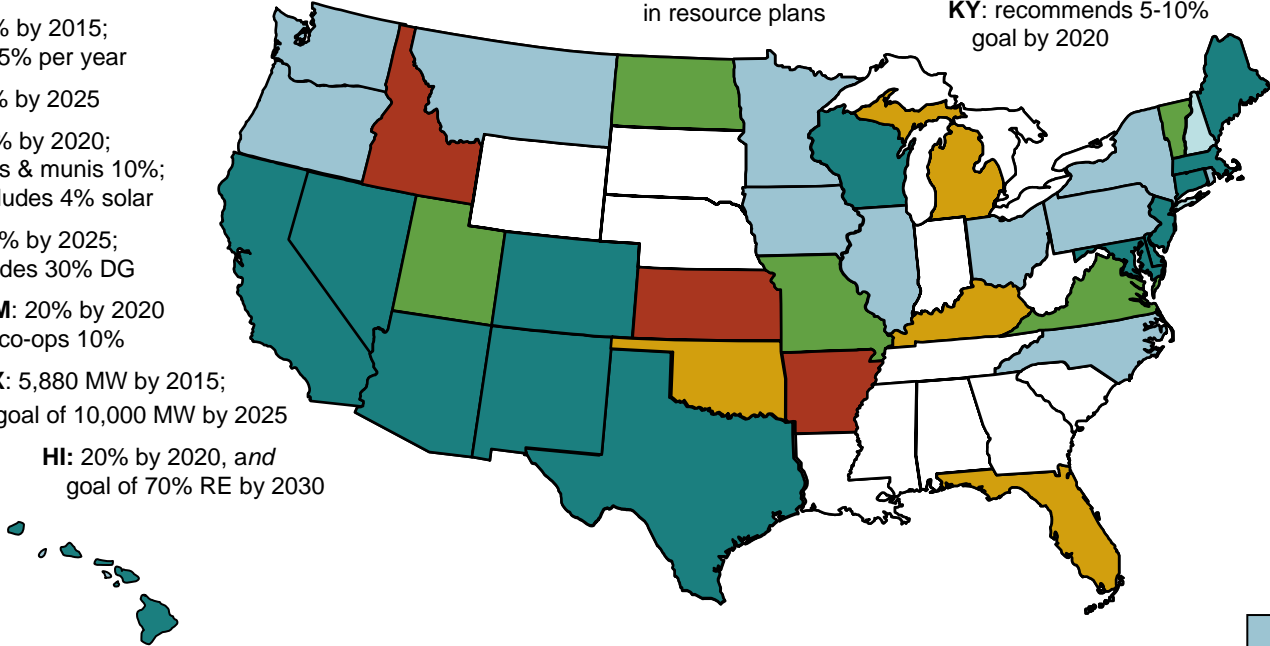
WA: 15% by 2020
OR: 25% by 2025; small utilities 5-10%
CA: 20% by 2010; goal of 33% by 2020; 50% goal on Nov ballot
NV: 20% by 2015; solar 5% per year
UT: 20% by 2025
CO: 20% by 2020; co-ops & munis 10%; includes 4% solar
AZ: 15% by 2025; includes 30% DG
NM: 20% by 2020 co-ops 10%
TX: 5,880 MW by 2015;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

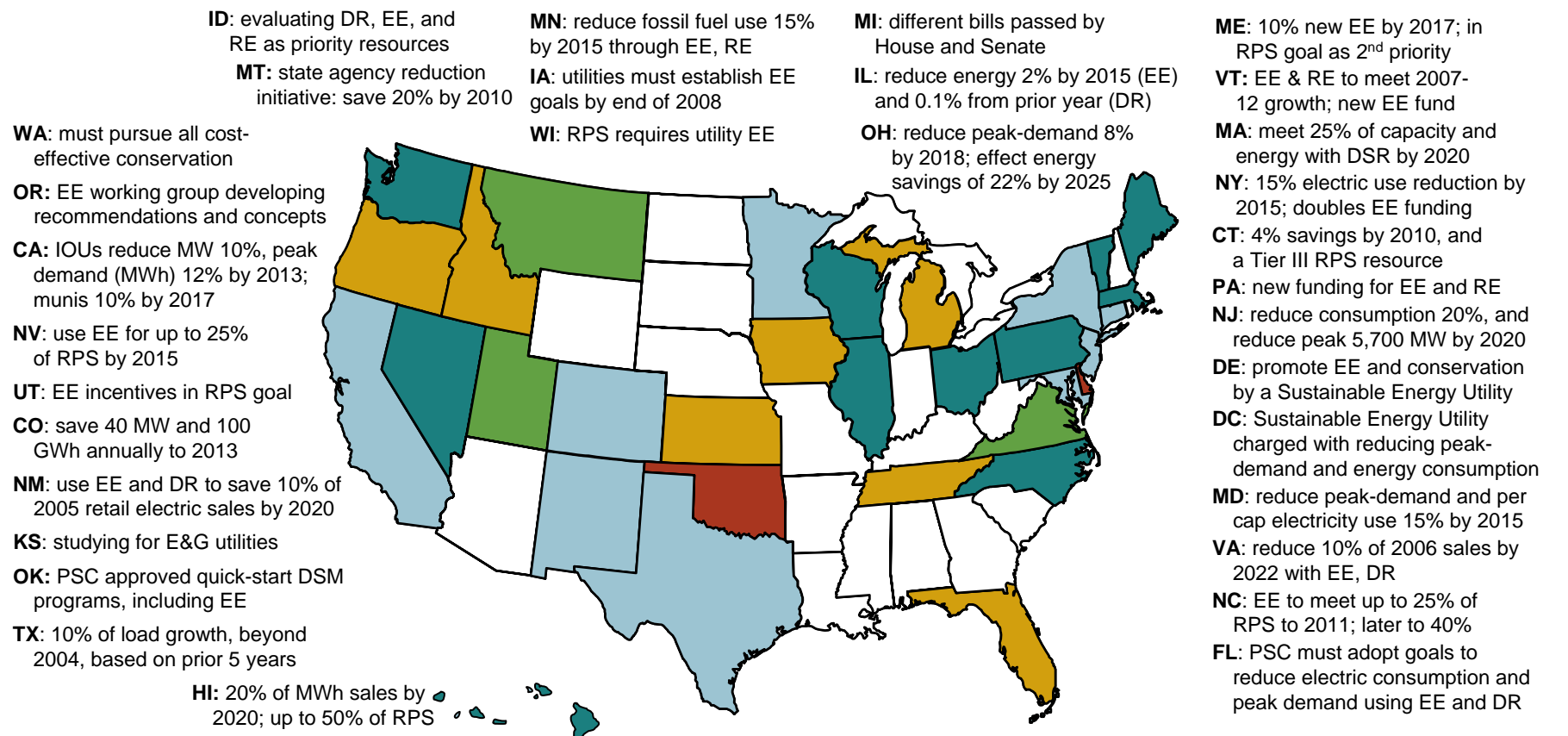
ME: 40% by 2017
NH: 23.8% BY 2025
VT: 25% by 2025
MA: doubles RPS - 15% by 2020; goal of 250 MW solar by 2017
RI: 16% by 2019
CT: 23% Class I/II by 2020 4% Class III by 2010
NY: 24% by 2013
PA: 8% Tier I, 10% Tier II by 2020; solar set-aside
NJ: 22.5% by 2020, with 2% solar
DE: 20% by 2019, with 2% solar
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.

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