OE ENERGY MARKET SNAPSHOT

National Version – November 2008 Data

- Special Report
- Electricity Markets
- Natural Gas and Fuel Markets

Office of Enforcement
Federal Energy Regulatory Commission
December 2008

Special Report:

- **Summary of OE 2008 Annual Report**

2008 REPORT ON ENFORCEMENT

Docket No. AD07-13-001

Released October 31, 2008

http://www.ferc.gov/legal/staff-reports/2008-enforc.pdf

Enforcement Activities FY2008

A. May 15, 2008 Issuances.

- Revised Policy Statement on Enforcement
- Interpretive Order Modifying the No-Action Letter Process and Reviewing Other Mechanisms for Obtaining Guidance
- Ex Parte Contacts and Separation of Functions
- Instant Final Rule on Submissions to the Commission upon Staff Intention To Seek an Order To Show Cause

B. Updated Enforcement Webpage

http://www.ferc.gov/enforcement/enforcement.asp

C. Compliance Workshop

D. Policy Statement on Compliance

E. Rulemakings on Reporting Requirements

- Reporting Requirements for Natural Gas Pipelines
- Reporting Requirements for Electric Utilities and Licensees
- Rule on Reporting of Transactions to Price Index Publishers and their Blanket Sales Certificate Status

Office of Enforcement

10/29/08

Office of the Director

Susan Court, Director
Anna Cochrane, Deputy Director
Roger Morie, Reliability Enforcement Counsel

Reliability Committee

Roger Morie – Chair

Administration Staff

Denice Smith, Acting Chief

Division of Investigations

Robert Pease, Director
Lee Ann Watson, Dep Dir
Kathryn Kuhlen, Senior Counsel

- Investigations Branch 1 — Deme Anas, Chief
- Investigations Branch 2 — Ted Gerarden, Chief
- Investigations Branch 3 — John Kroeger, Chief
- Investigations Branch 4 — Todd Mullins, Chief
- Investigations Branch 5 — Vacant, Chief

Division of Audits

Bryan Craig, Director
Timothy Smith, Dep Dir

- Audits Branch 1 — Gerald Williams, Chief
- Audits Branch 2 — Timothy Smith, Acting Chief
- Audits Branch 3 — Beth Taylor, Chief
- Audits Branch 4 — Brian Harrington, Chief

Division of Financial Regulation

Jerome Pederson, Director
Michelle Veloso, Dep Dir
Scott Molony, Chief Accountant

- Regulatory Accounting Branch — Scott Molony, Chief
- Forms Administration and Data Branch — David Lengenfelder, Chief

Division of Energy Market Oversight

J. Arnie Quinn, Director
Steven Reich, Dep Dir
Matthew Hunter, Senior Adviser

- Market Monitor Relations Branch — John Sillin, Chief
- Information Management and Reporting Branch — William Booth, Chief
- Electric Market Analysis Branch — Keith Collins, Chief
- Fuels Market Analysis Branch — Christopher Peterson, Chief
- Transactions Analysis Branch — Steven Reich, Acting Chief

SR1AKR

Investigation Activities FY2008

A. Self Reporting Statistics
B. Trends in Self Reporting
C. Trends in Investigations
D. Investigation Statistics
E. Settlements
F. Proceedings After Orders To Show Cause Have Issued

Investigation Highlights

A. Number of Investigations increased
   - 48 in FY2008
   - 35 in FY 2007

B. Increase in Market Manipulation cases

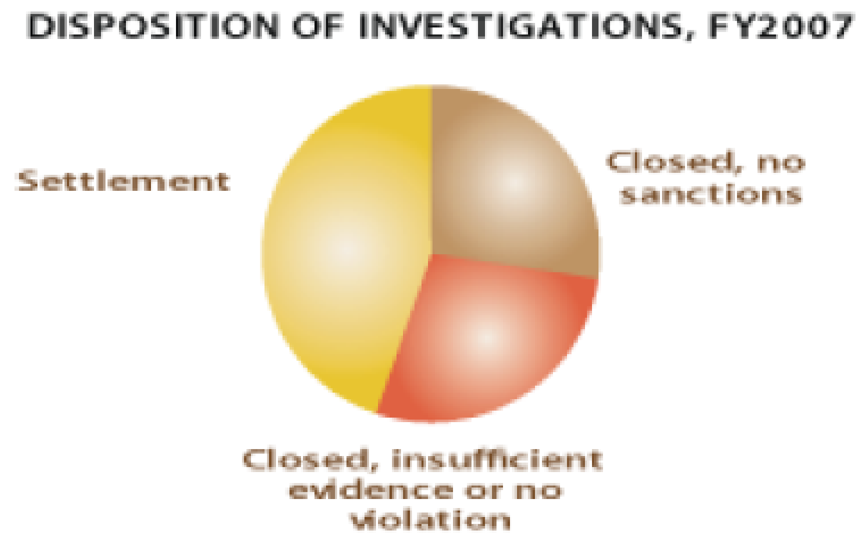
C. Increase in 35.41

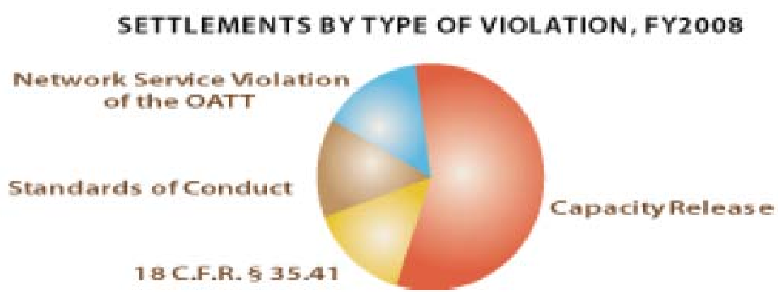
D. Increase in referrals from MMUs
   - 15 in 2008 vs 2 in 2007

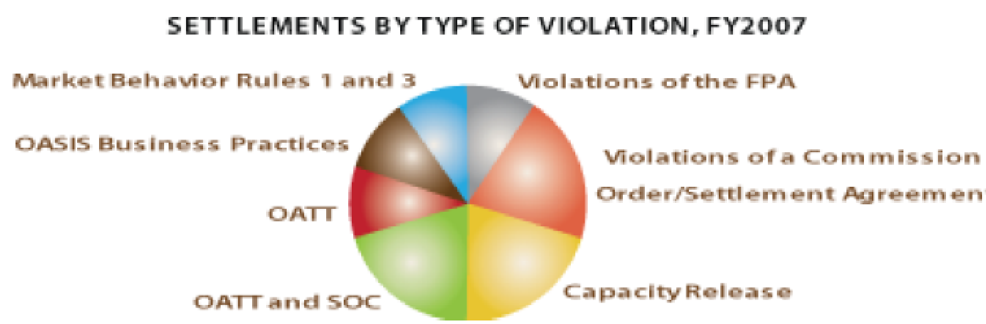
E. First Reliability related investigations opened in FY2008

F. Stress on compliance programs

Investigation Dispositions





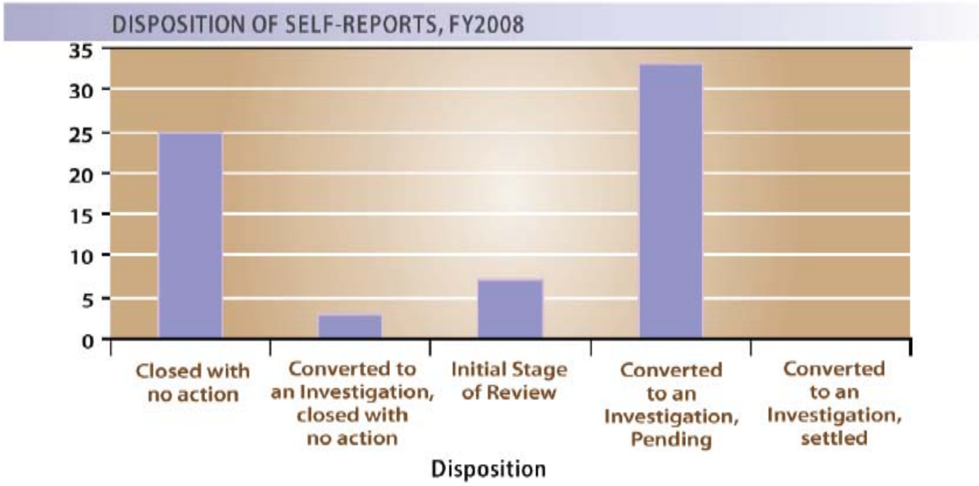


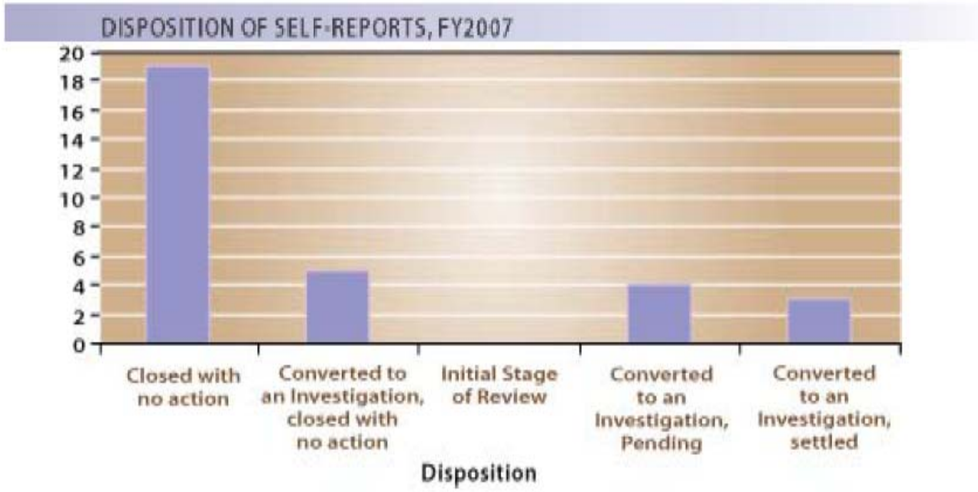
FY2008 total civil penalty payment: $19.95 million

FY2007 total civil penalty payment: $32.5 million

Self Report Highlights

A. Self Reporting doubled to 68 reports in FY2008 (31 in FY2007)
B. Most self reports continue to involve Capacity Release requirements
C. SOC self-reports have declined
D. Staff closed 25 FY2008 self reports with no action
E. None have yet resulted in penalty





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Orders To Show Cause FY2008

A. Amaranth Advisors LLC

B. Energy Transfer Partners, L.P.; and Oasis Pipeline,L.P.

Audits Activities FY2008

A. Summary of Audit Results

- 60 audits in FY2008; 39 Financial & 21 non-financial
- 156 recommendations for corrective action
- $1 mill recoveries from acctg/billing adjustments
- $8.7 million reductions in utility plant
- Implementation of compliance plans
- Examples:
  - PUCHA 2005 - 1
  - Financial Services Trading Companies – 3
  - Blanket Authorizations for Mergers, Acquisitions, and other Transactions – 1
  - Fuel Adjustment Clause – 1
  - Market-Based Rate Authorizations – 2
  - OATT – 3
  - OASIS – Several
  - Reliability – 8 (Observers only)

B. Referrals to Investigations – Ottertail and DQE

C. Audit Improvements

Energy Market Oversight Activities FY2008

A. **Presentations at Commission and Other Public Meetings**
   - State of Markets
   - Summer/Winter Assessments
   - Upon Request (ex. Increasing Costs in Electric Markets)
   - Conferences (ex. Review of Wholesale Electric Markets)

B. **Oversight Website**
   http://www.ferc.gov/market-oversight/market-oversight.asp

C. **Domestic and Foreign Delegation Briefings**
   - 3 Congressional delegations
   - 2 groups from state commissions
   - 6 industry delegations
   - 17 foreign delegations

D. **Research in Market Oversight Program**
   - EPA - emissions
   - Missouri PSC – market volatility, distortions, manipulation
   - Ireland's Commission on Energy Regulation

E. **Monthly Conference Calls With State Energy Officials**

F. **RTO/ISO Market Monitors**

G. **Market Monitoring Center (MMC)**

Financial Regulation Activities FY2008

A. Forms Administration and Data Collection

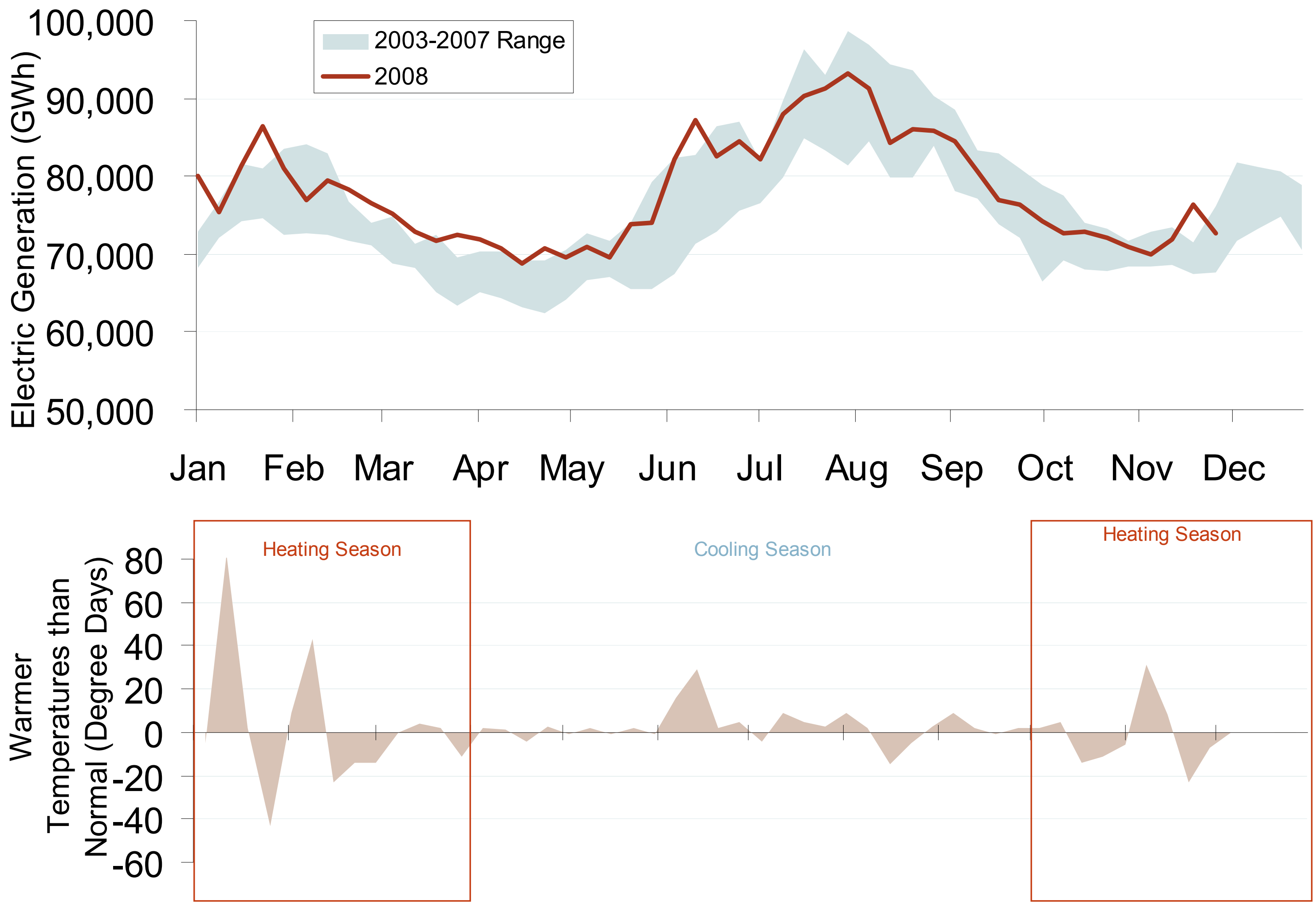
- Electric Quarterly Reports
- Annual and Quarterly Financial Reports

B. Regulatory Accounting

- Help Desk and Outreach
- Requests for Approval of the Chief Accountant
- Certificate Proceedings
- Merger and Acquisition Proceedings
- Rate Proceedings

Electricity Markets

Weekly U.S. Electric Generation Output and Temperatures



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

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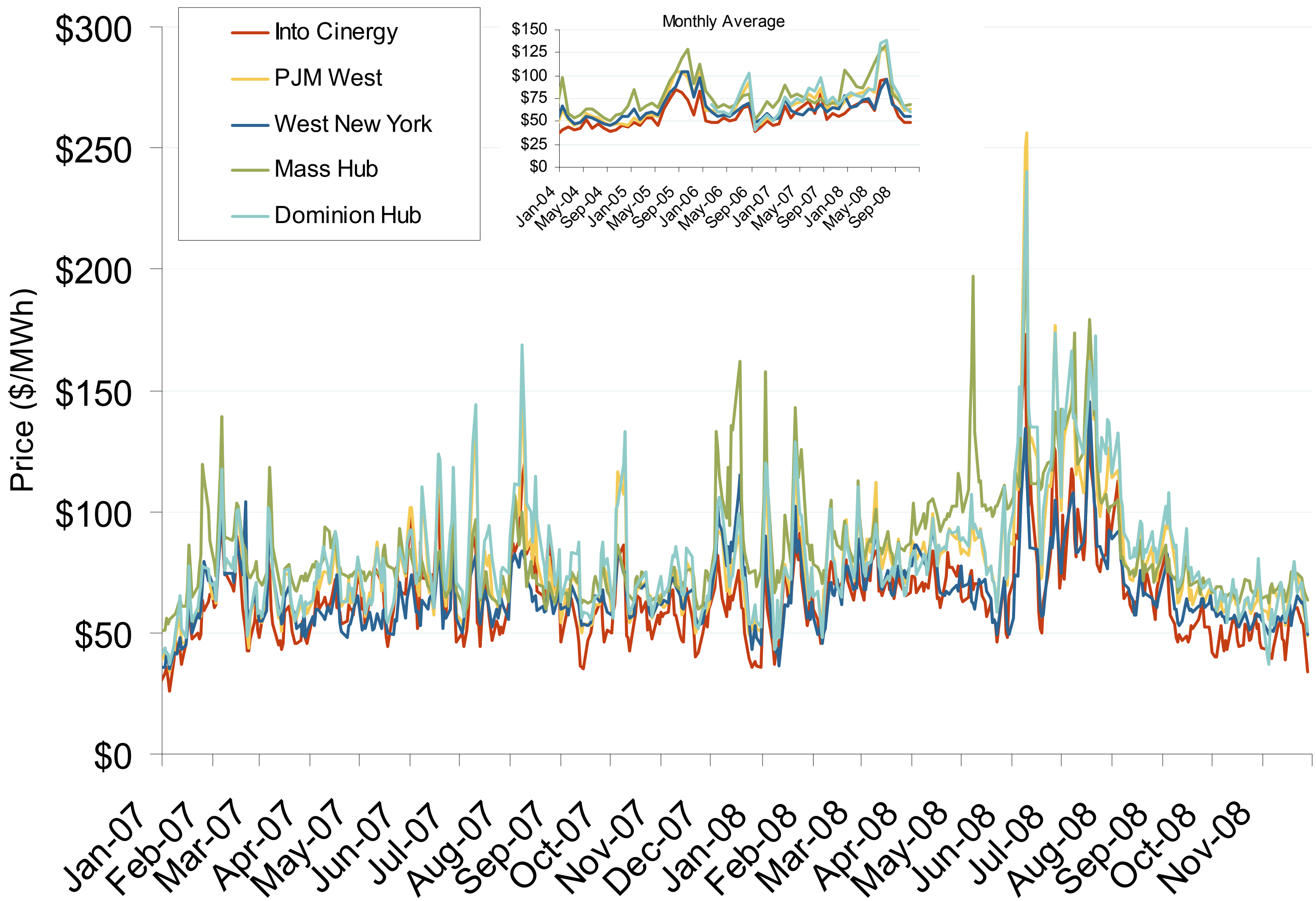
Eastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

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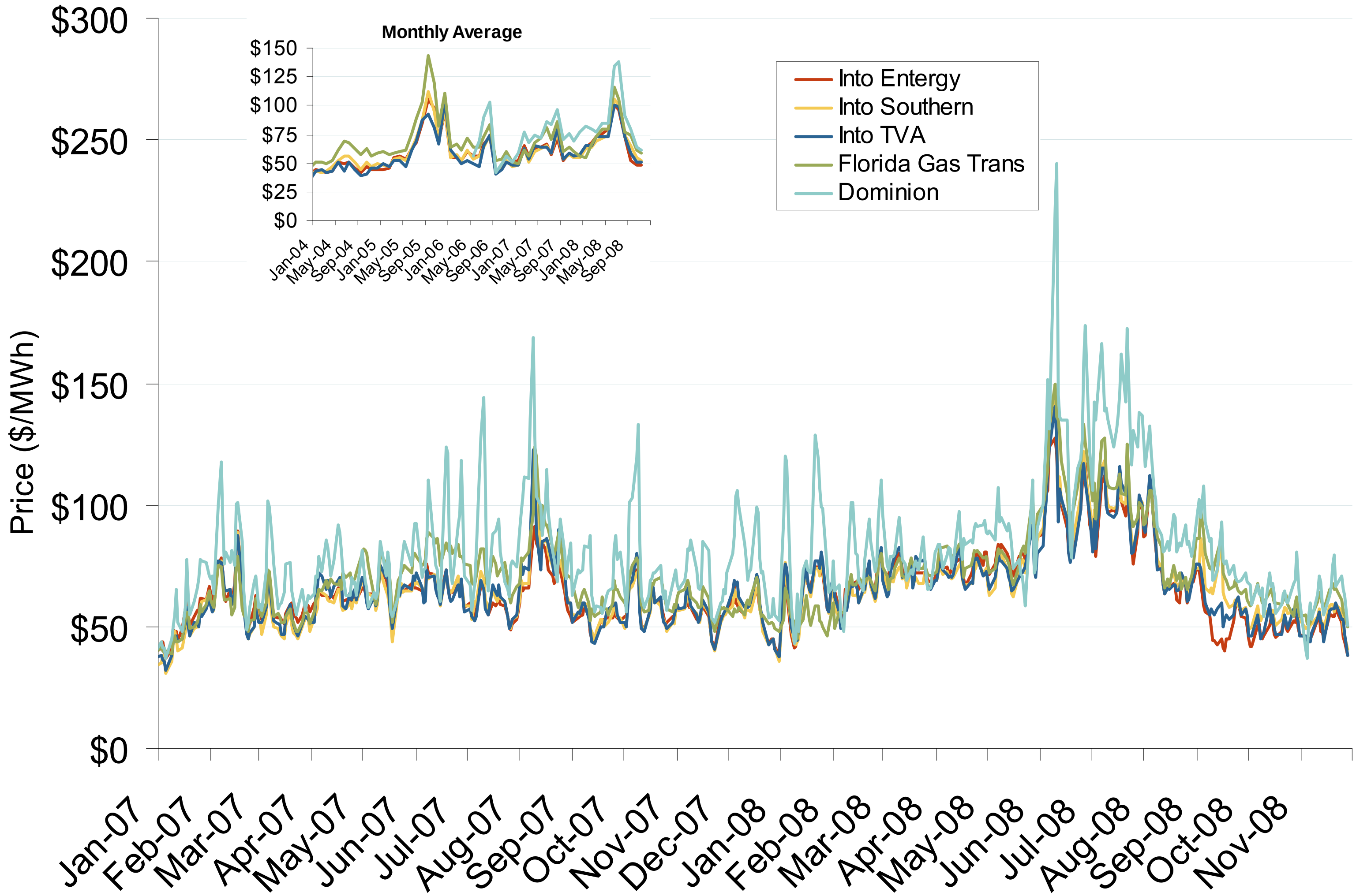
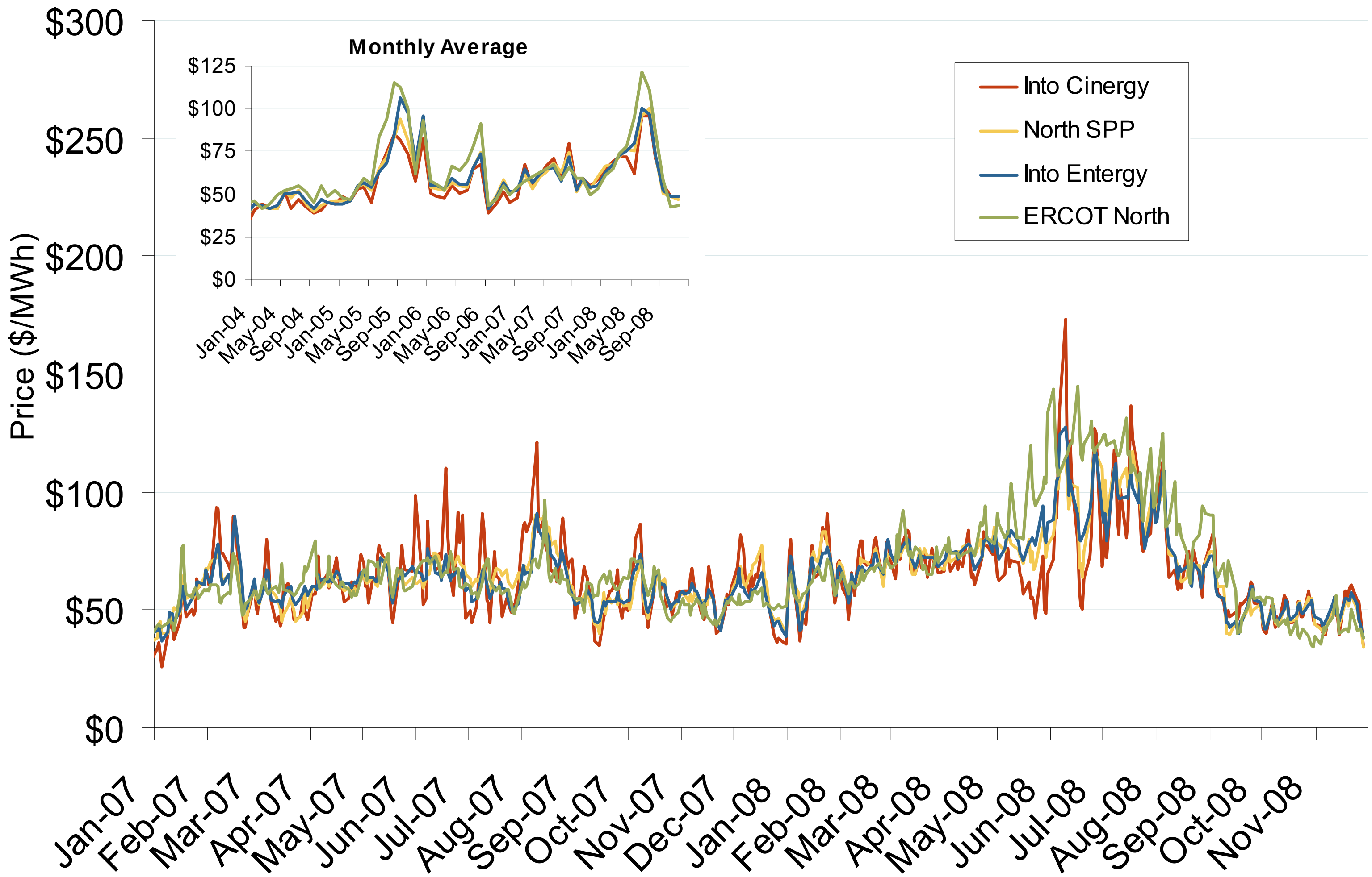
Southeastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Central Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

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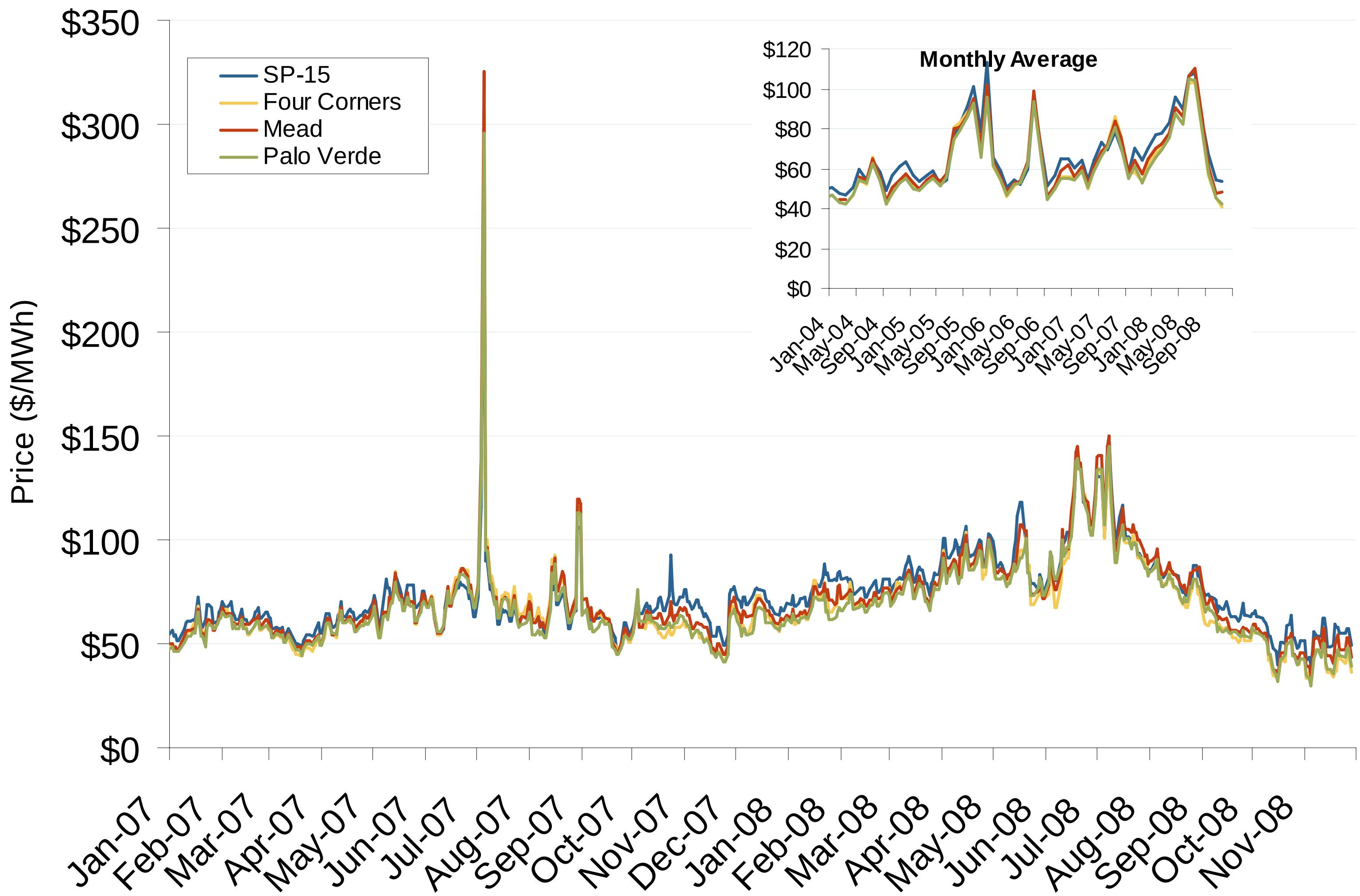
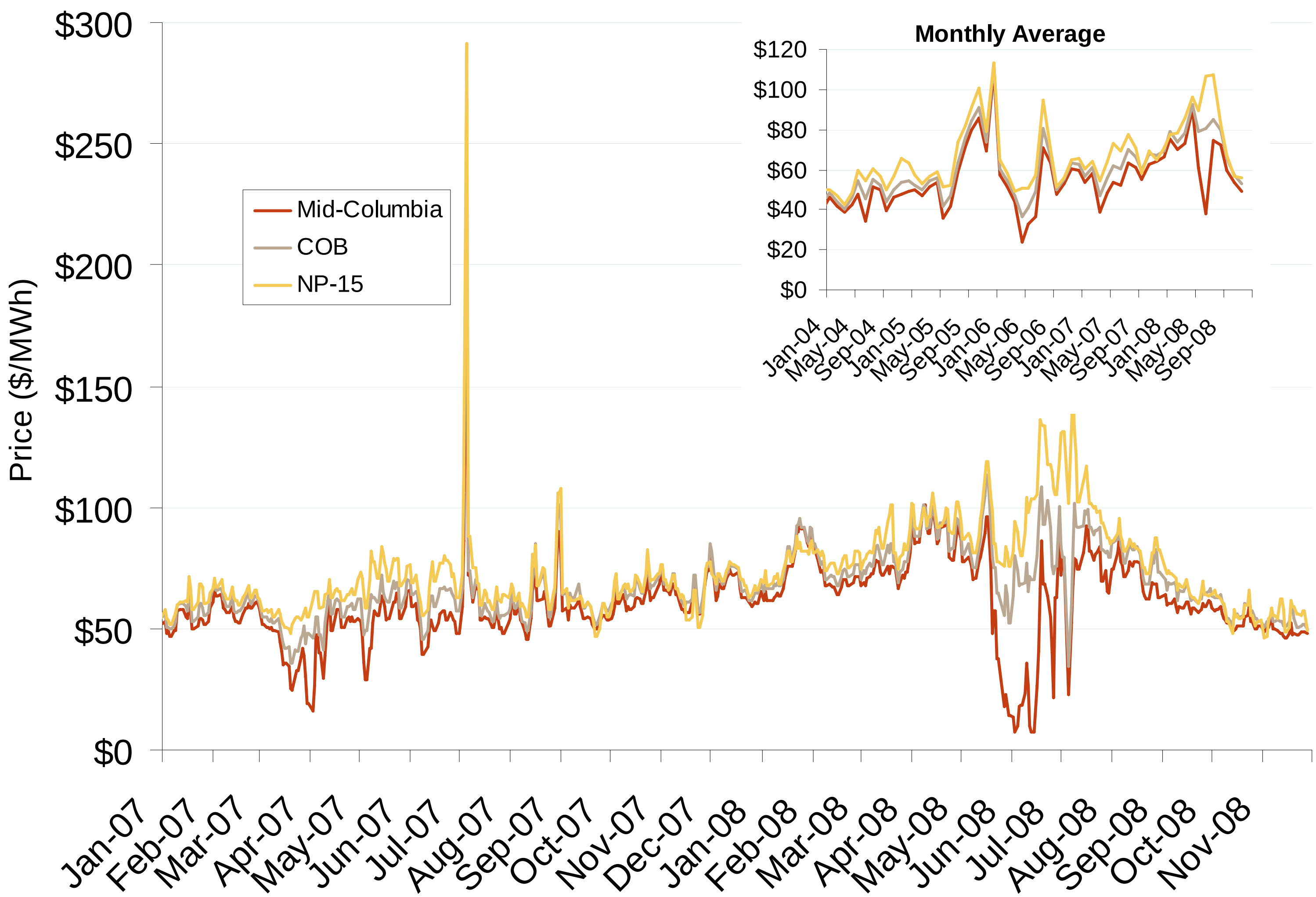
Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Northwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Renewable Energy Portfolio Standards (RPS)

28 states and D.C. have an RPS

WA: 15% by 2020

OR: 25% by 2025; small utilities 5-10%

ID: Priority to DR, EE, and in-state RE

CA: 20% by 2010; Exec Order: 33% by ‘20

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; *proposed increase to* 40% by 2030 agreed to for 2009 session

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:15% by 2021; at least 2% solar

AR: utilities to include RE in IRPs

WI: 10% by 2015; proposed increase for 2009 session

IL: 25% by 2025

MI: 10% by 2015, and new RE capacity: 1,100 MW by 2015

OH: 12.5% by 2025; 0.5% solar

KY: proposed REPS: 1,000 MW of clean energy by 2025

ME: 40% by 2017

NH: 23.8% BY 2025

VT: 25% by 2025

MA:15% by 2020; 250 MW solar goal by 2017

RI: 16% by 2019

CT: 23% Class I/II by 2020 4% Class III by 2010

NY: 25% by 2013

PA: 8% Tier I, 10% Tier II by 2020; 0.5% solar set-aside

NJ: 22.5% by 2020; 2% solar; MEP proposes increases

DE: 20% by 2019, with 2% solar

DC: 20% by 2020, with 0.4% solar

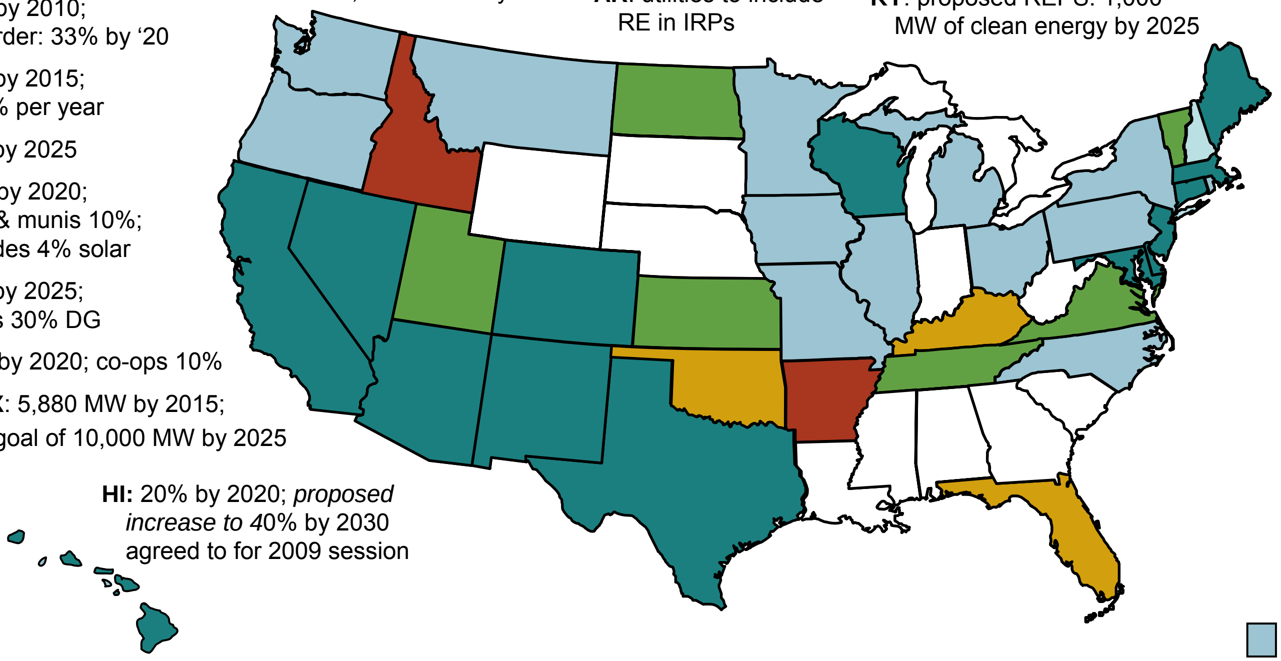
MD: 20% by 2022, with 2% solar

VA: 12% by 2022

TVA: 50% of generation from zero- or low-carbon sources by 2020*

NC: 12.5% by 2021 co-ops & munis: 10% by 2018

FL: PSC postponed vote on draft RPS to Jan 2009 for more study



- RPS
- Strengthened/ amended RPS
- Voluntary standards or goals
- Proposed RPS or studying RPS
- Other renewable energy goal

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.

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Energy Efficiency Resource Standards (EERS)

ID: Energy Plan puts conservation – DR and EE – as priority resource

MT: state agency reduction initiative: save 20% by 2010

WA: must pursue all cost-effective conservation

OR: IOUs required to have EE in IRP & assess cost-effectiveness

CA: IOUs reduce MW 10%, peak demand (MWh) 12% by 2013; munis 10% by 2017

NV: use EE for up to 25% of RPS by 2015

UT: EE incentives in RPS goal

CO: save 40 MW and 100 GWh annually to 2013

NM: use EE and DR to save 10% of 2005 retail electric sales by 2020

KS: Order advocates voluntary utility programs, not mandate

OK: PSC approved quick-start DSM programs, including EE

TX: 10% of load growth, beyond 2004, based on prior 5 years

HI: 20% of MWh sales by 2020; up to 50% of RPS

MN: reduce fossil fuel use 15% by 2015 through EE, RE

IA: utilities must establish EE goals by end of 2008

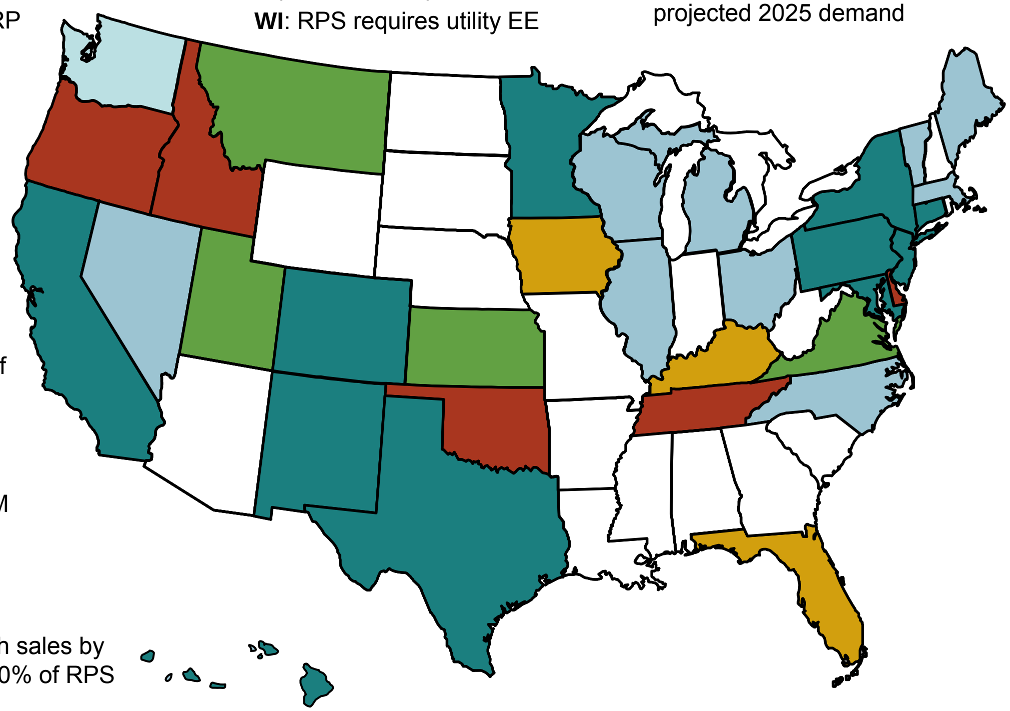
MI: annual savings: 1% of prior year's sales by 2012

WI: RPS requires utility EE

IL: reduce energy 2% by 2015 (EE) and 0.1% from prior year (DR)

OH: reduce peak-demand 8% by '18; 22% energy savings by '25

KY: proposed REPS - EE and conservation to offset 18% of projected 2025 demand



ME: 10% new EE by 2017; in RPS goal as 2nd priority

VT: EE & RE to meet 2007-12 growth

MA: meet 25% of capacity and energy with DSR by 2020

NY: 15% electric use reduction by 2015; doubles EE funding

CT: 4% savings by 2010; a Tier III RPS resource

NJ: reduce consumption 20%, and peak demand 5,700 MW by 2020

DE: EE, RE, DG, and DR are priority resources before new gen

PA: reduce energy consumption 3% and peak demand 4.5% by 2013

DC: reduce peak demand and energy consumption

MD: reduce peak demand and per cap electricity use 15% by 2015

VA: reduce 10% of 2006 sales by 2022 with EE, DR

NC: EE to meet up to 25% of RPS to 2011; later to 40%

TVA: reduce peak demand 1,400 MW by 2012 with EE, DR *

FL: PSC to adopt goals to reduce electric consumption, peak demand

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

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

* 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

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Collaborative Greenhouse Gas (GHG) Programs

Collaborative Regional GHG Programs:

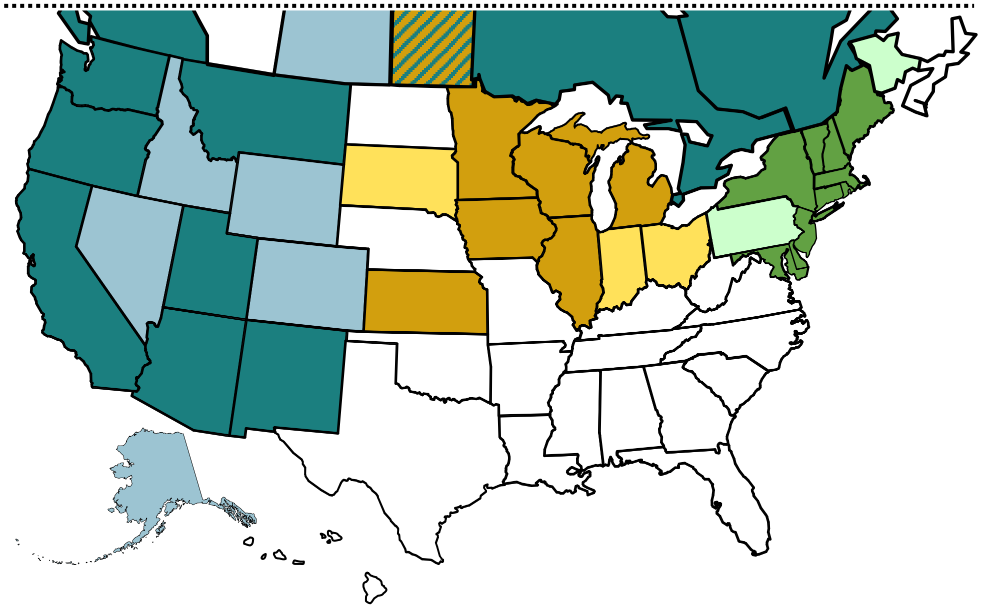
- Three North American groups with goals to lower regional GHG emissions were initiated by state Governors.
- 32 U.S. states, D.C., eight Canadian provinces, and six Mexican states are Participants or Observers.
- Observer jurisdictions do not commit to group GHG reduction goals, but participate in proceedings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

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% CO_2 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* CO_2 emissions.
- 10% CO_2 reduction by 2018 covers over 200 plants
- 188 million allowances to be sold in 6 auctions

Auctions:

1. 9/25: 12.5 million allowances sold by 6 states, clearing at $3.07/allowance.

2. 12/17/08: first 6 states plus NY, NJ, NH, DE to participate in sale of 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

Participant in WCI
Observer to WCI
Participant in MGGRA
Observer to MGGRA
Participant in RGGI
Observer to RGGI
Participant in MGGRA & WCI

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 and Quebec are Partners to WCI and Observers to RGGI; Ontario is also an observer to RGGI. Sources: Regional initiatives: www.rggi.org, www.midwesternaccord.org, www.westernclimateinitiative.org , trade press, Pew Center.

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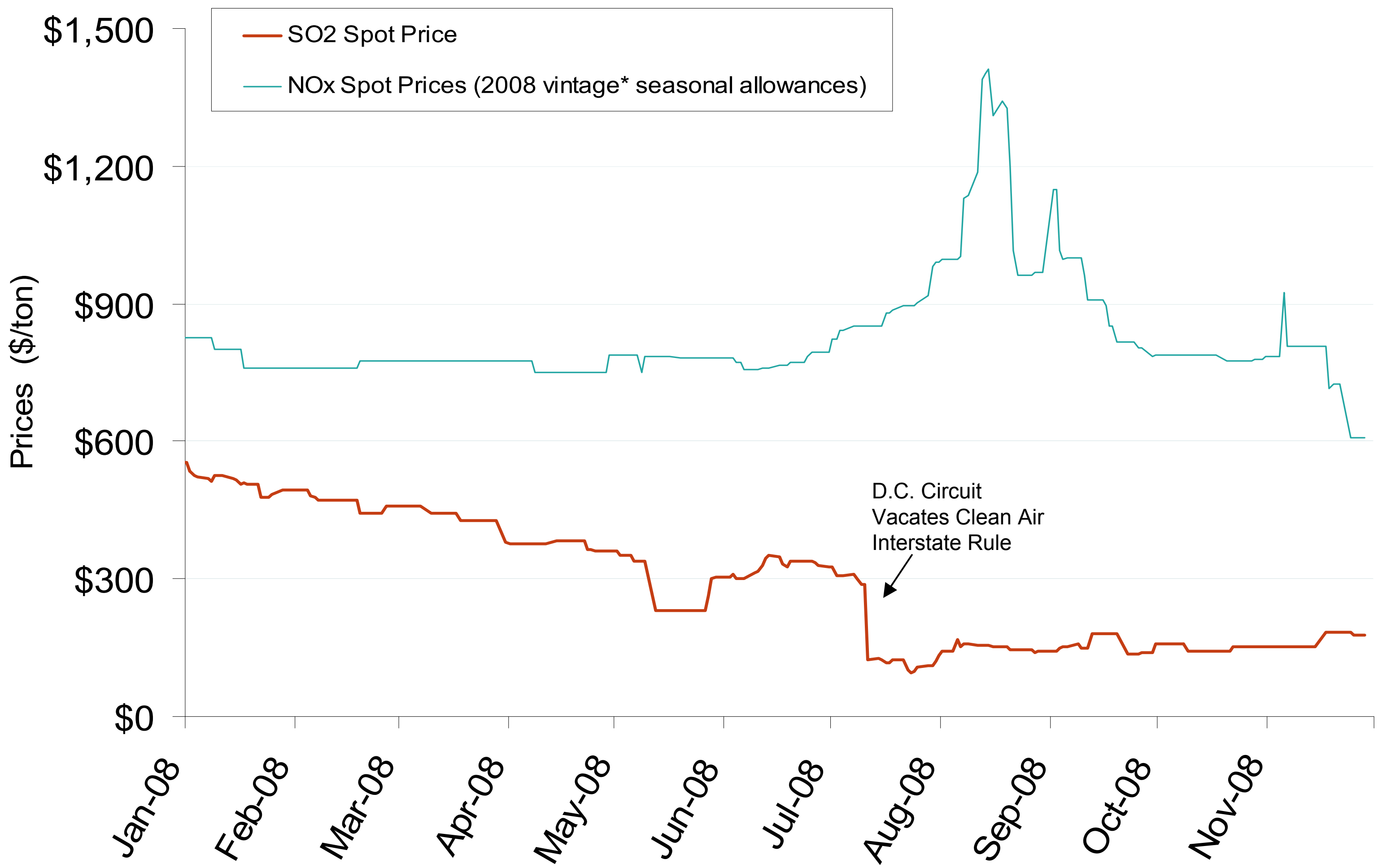
SO_2 Allowance Spot Prices and NOx Seasonal Allowance Spot Prices



Source: Derived from *Cantor Fitzgerald* data.

* Earliest year an allowance may be applied against emissions.

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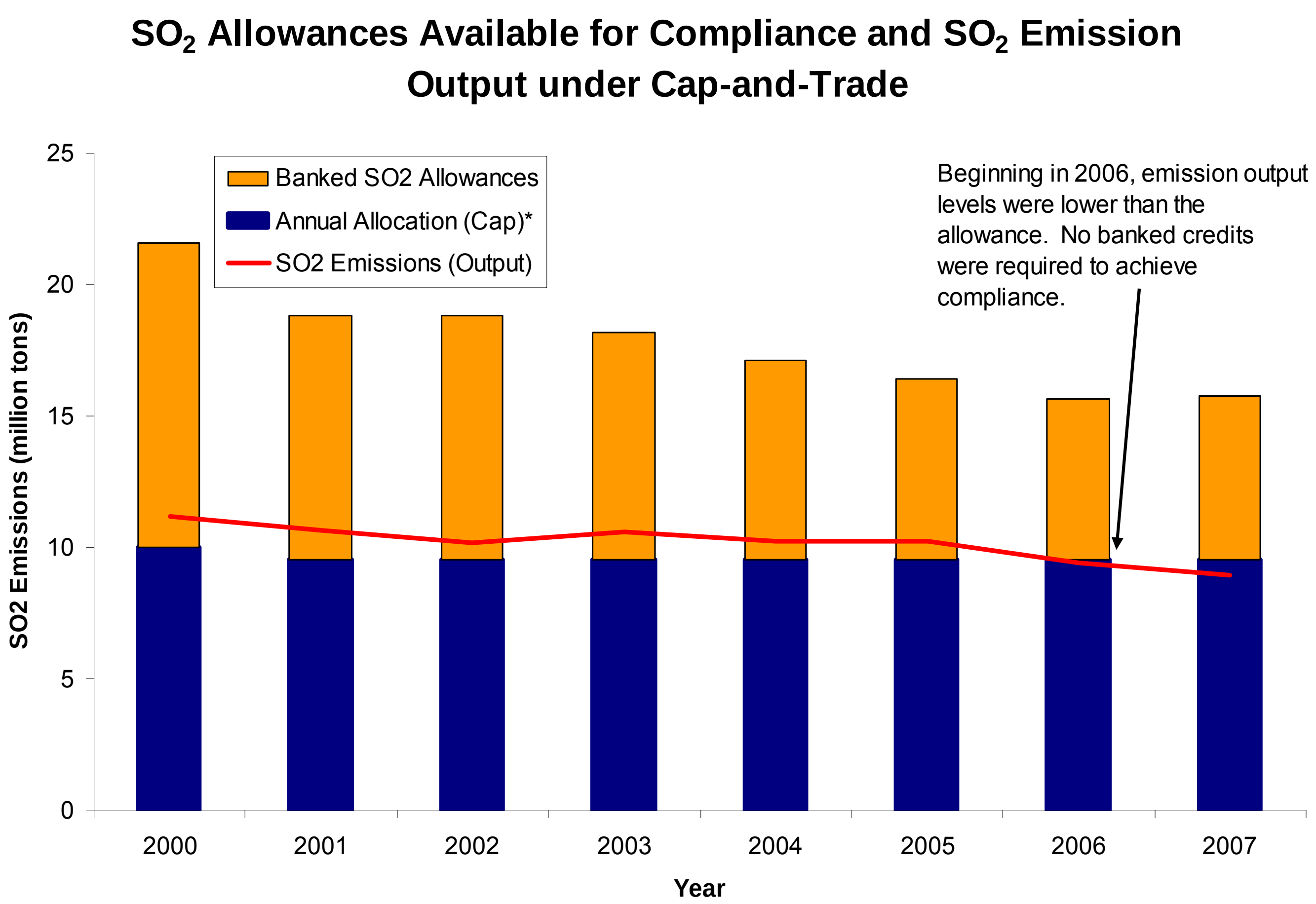
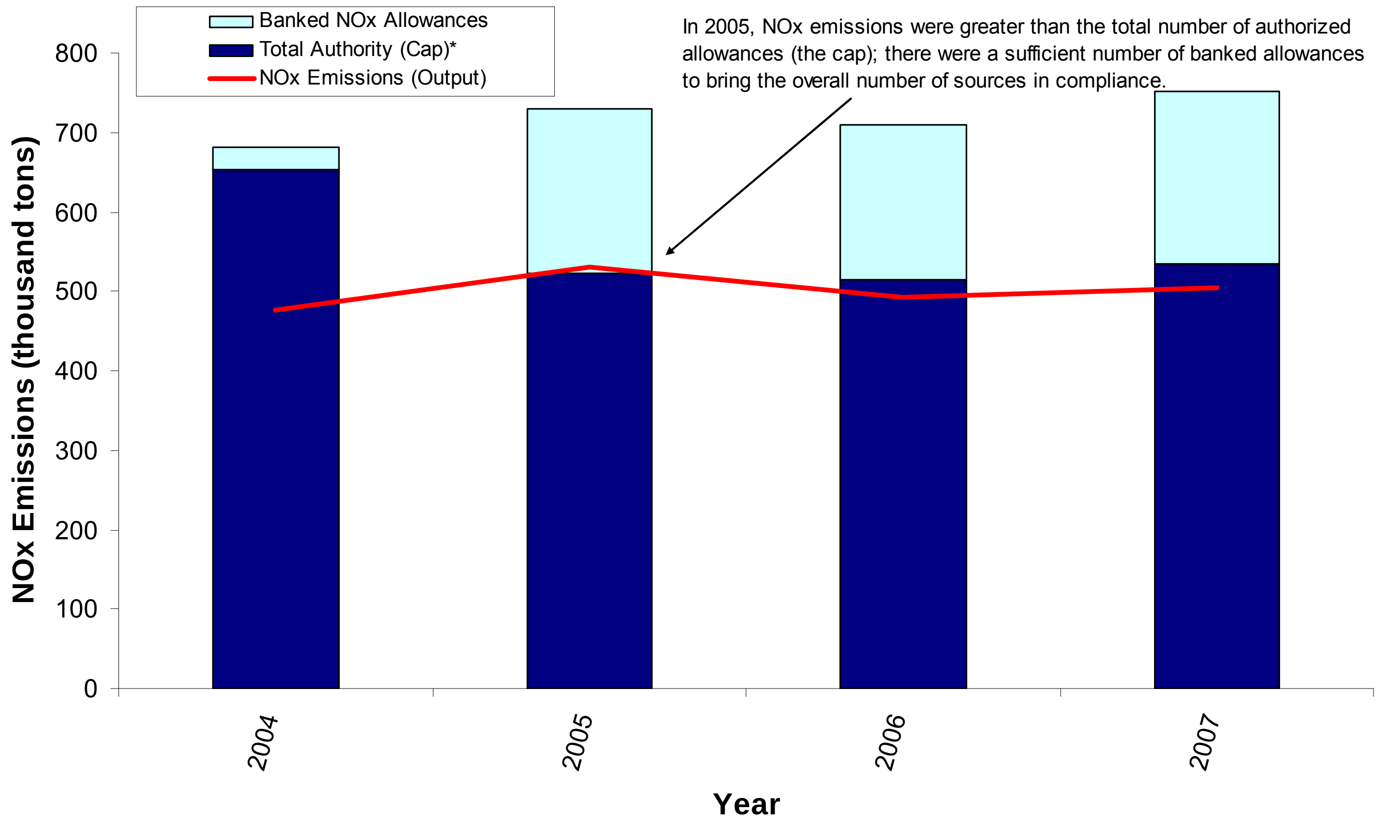
SO2 Allowances Available for Compliance and SO2 Emission Output under Cap-and-Trade



Source: EPA

See overview on following slide.

NOx Allowances Available for Compliance and NOx Emission Output under Cap-and-Trade

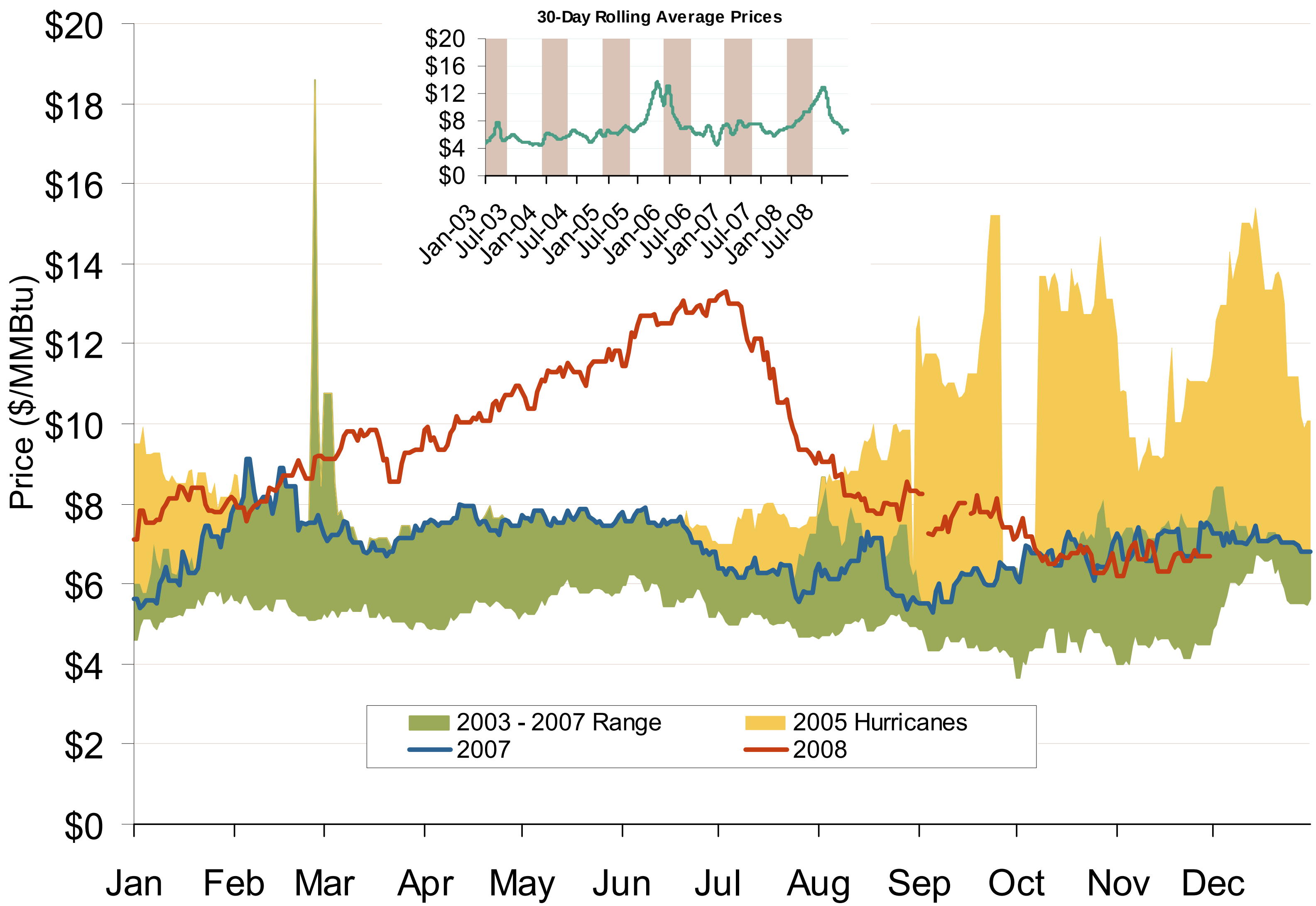


Source: EPA

See notes on following slide.

Natural Gas and Fuel Markets

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



Source: Derived from *Platts* data.

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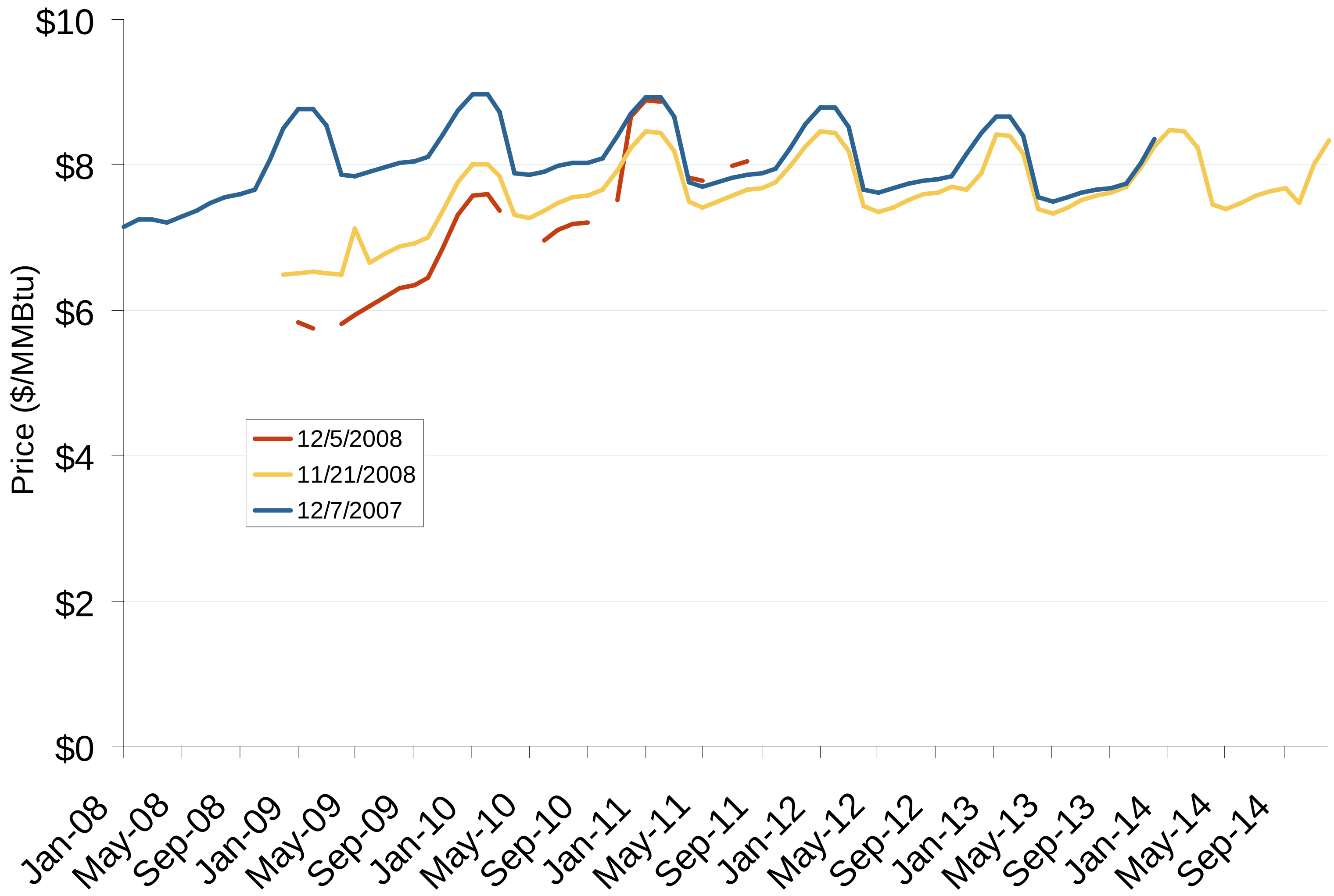
NYMEX Natural Gas Forward Price Curve



Source: Derived from *NYMEX* data.

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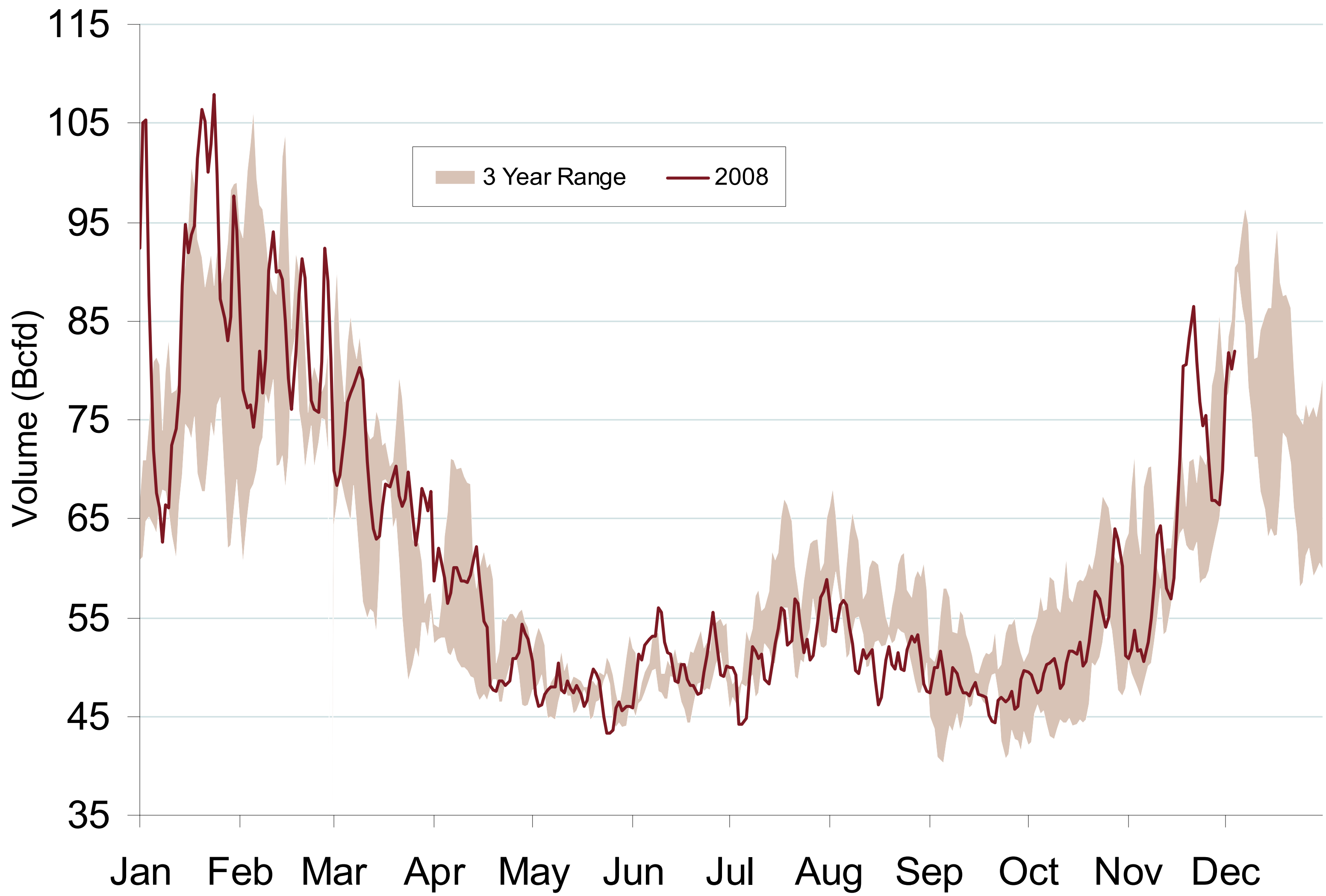
Total U.S. Natural Gas Demand (All Sectors)



Source: Derived from *Bentek Energy* data.

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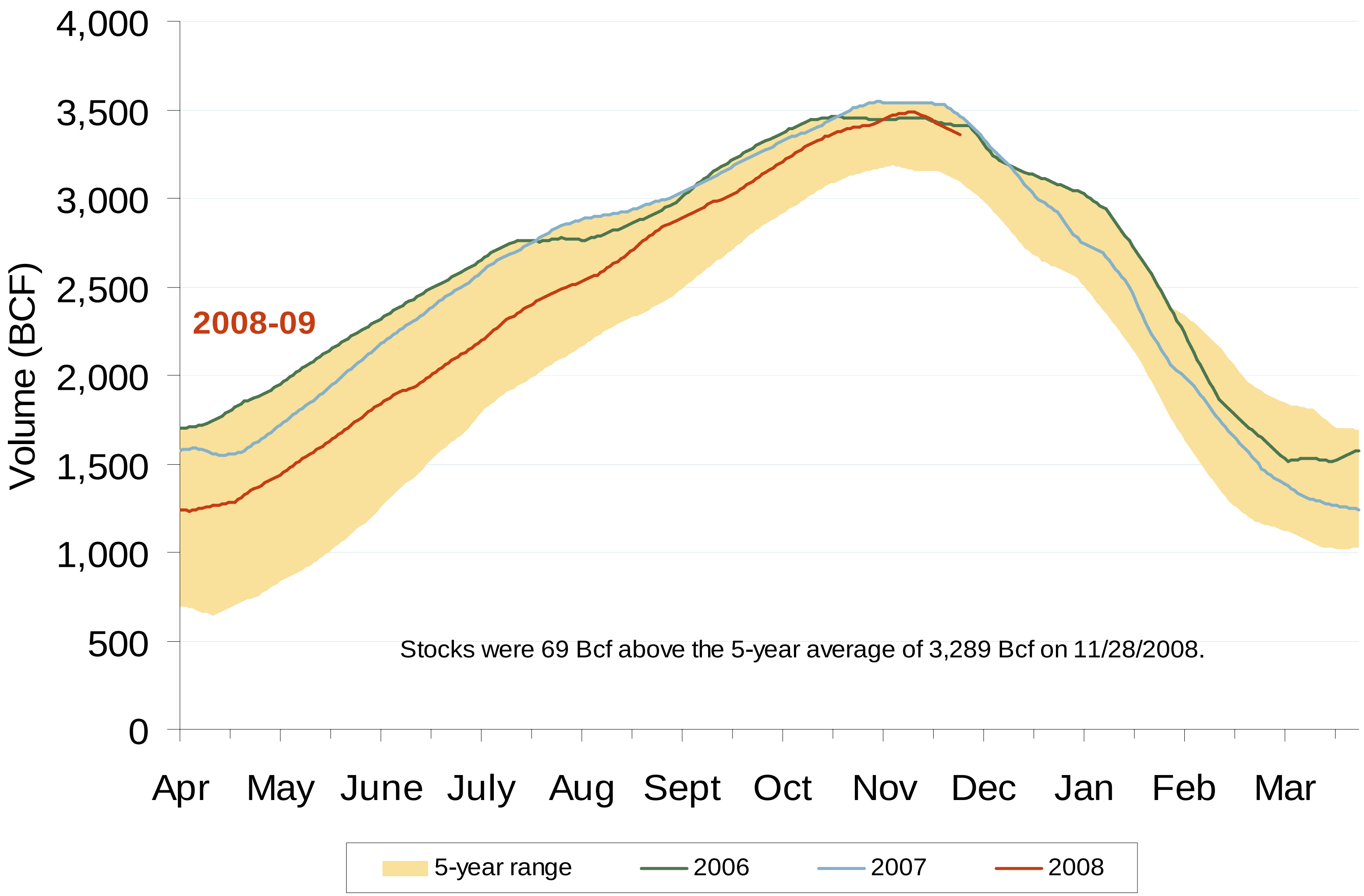
Total U.S. Working Gas in Storage



Source: Derived from *EIA* data.

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2003

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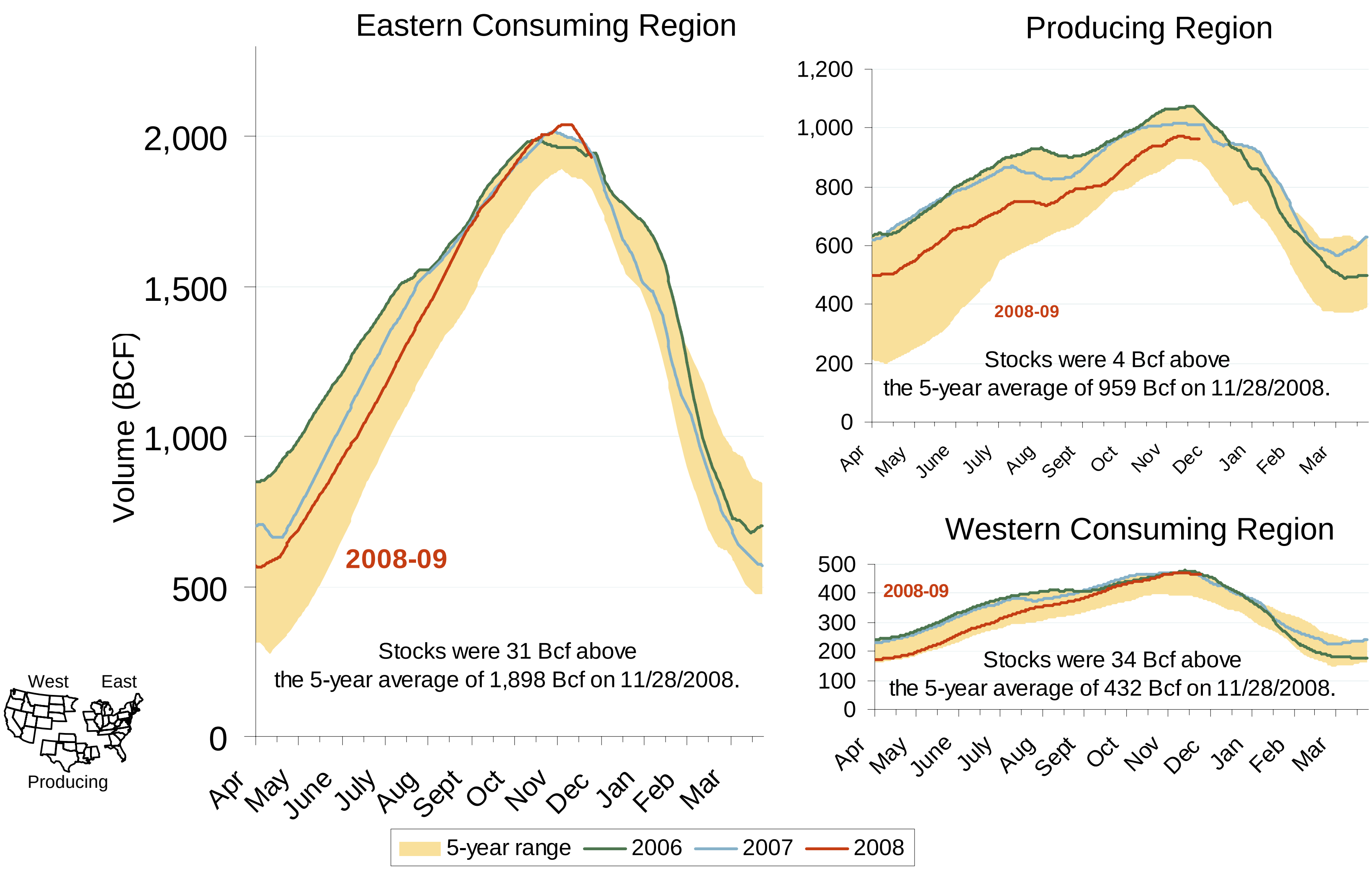
Regional Totals of Working Gas in Storage



Source: Derived from *EIA* data.

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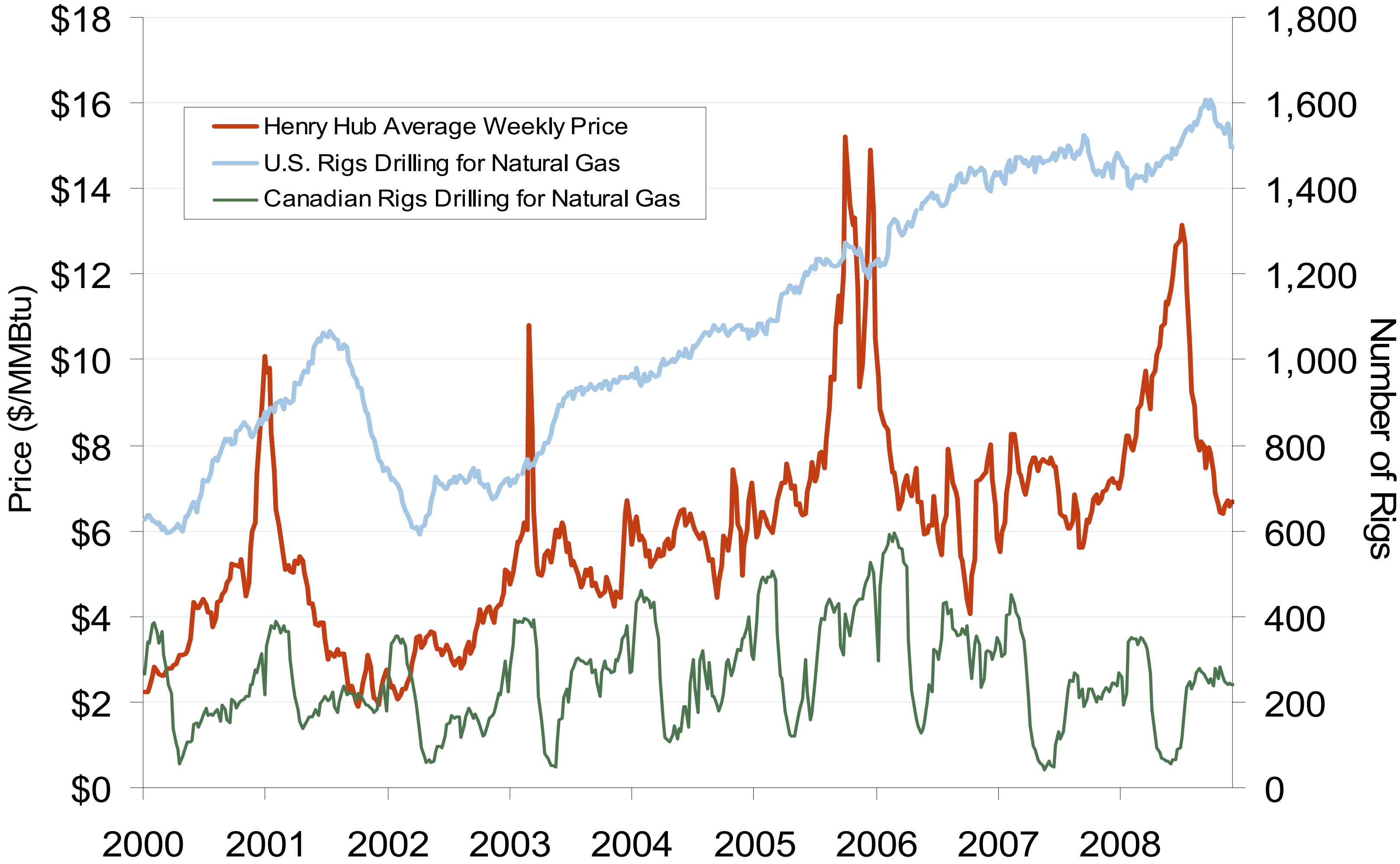
U.S. and Canadian Natural Gas Drilling Rig Count and Daily Spot Prices



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

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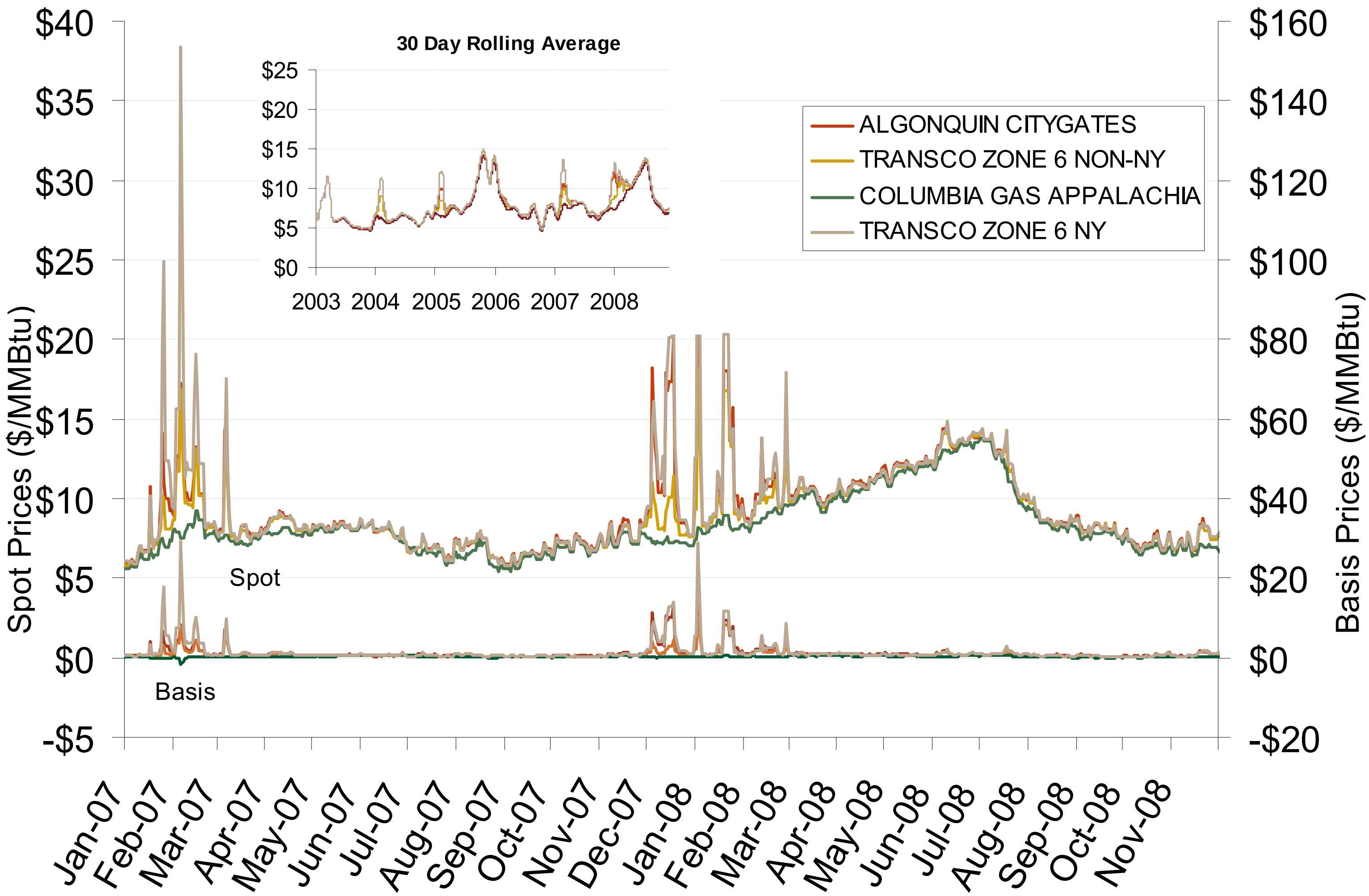
Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.

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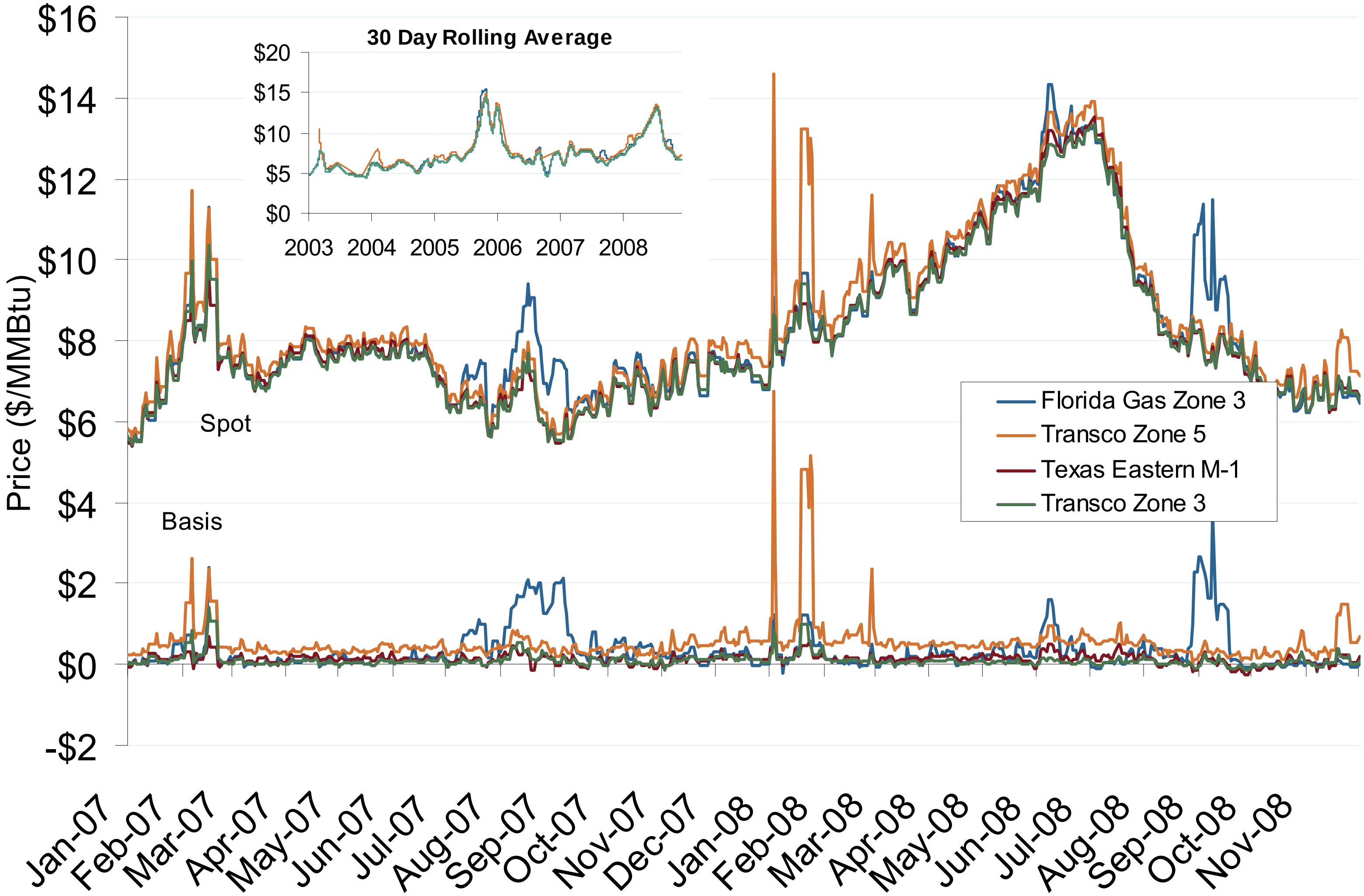
Southeastern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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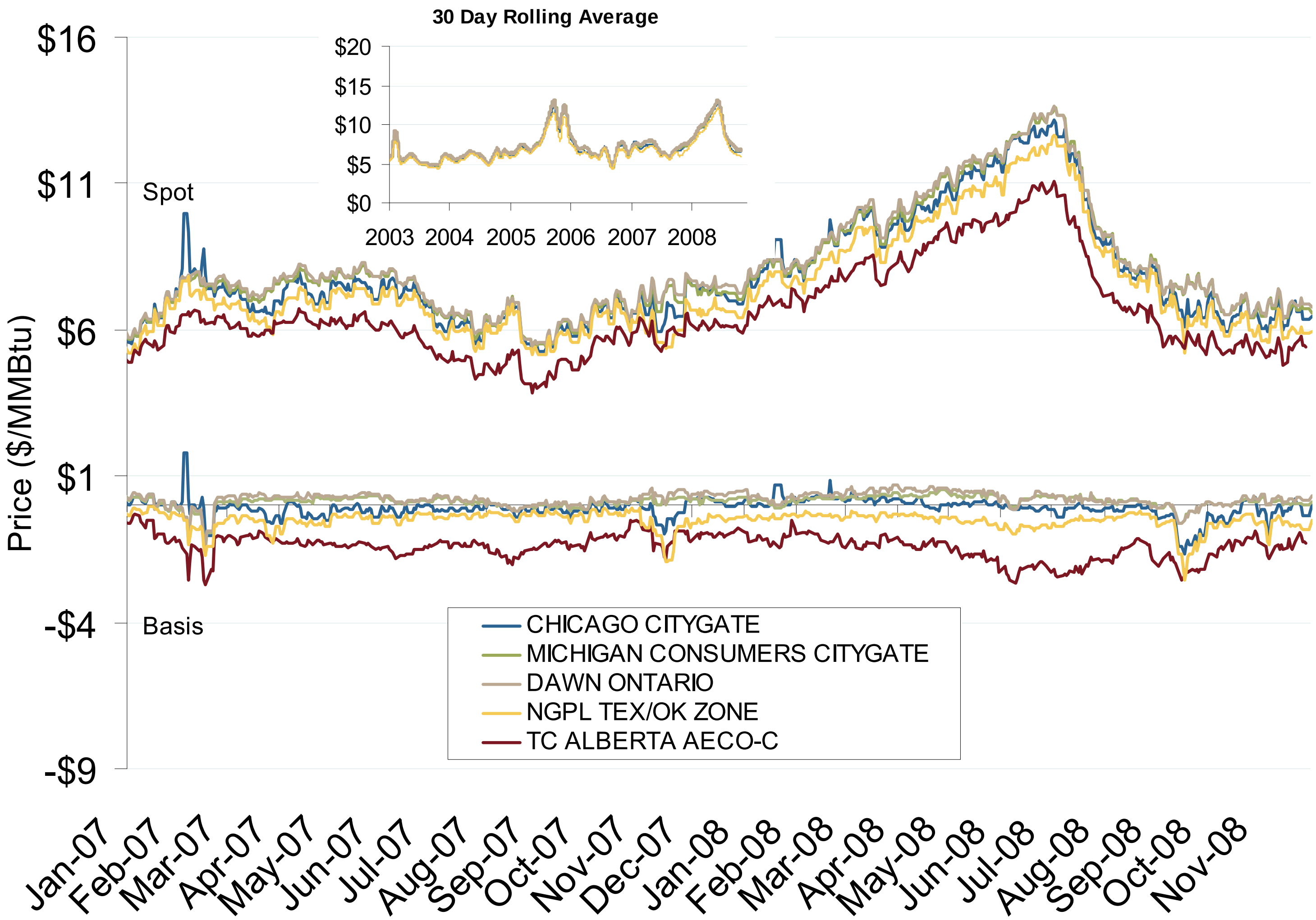
Midwestern Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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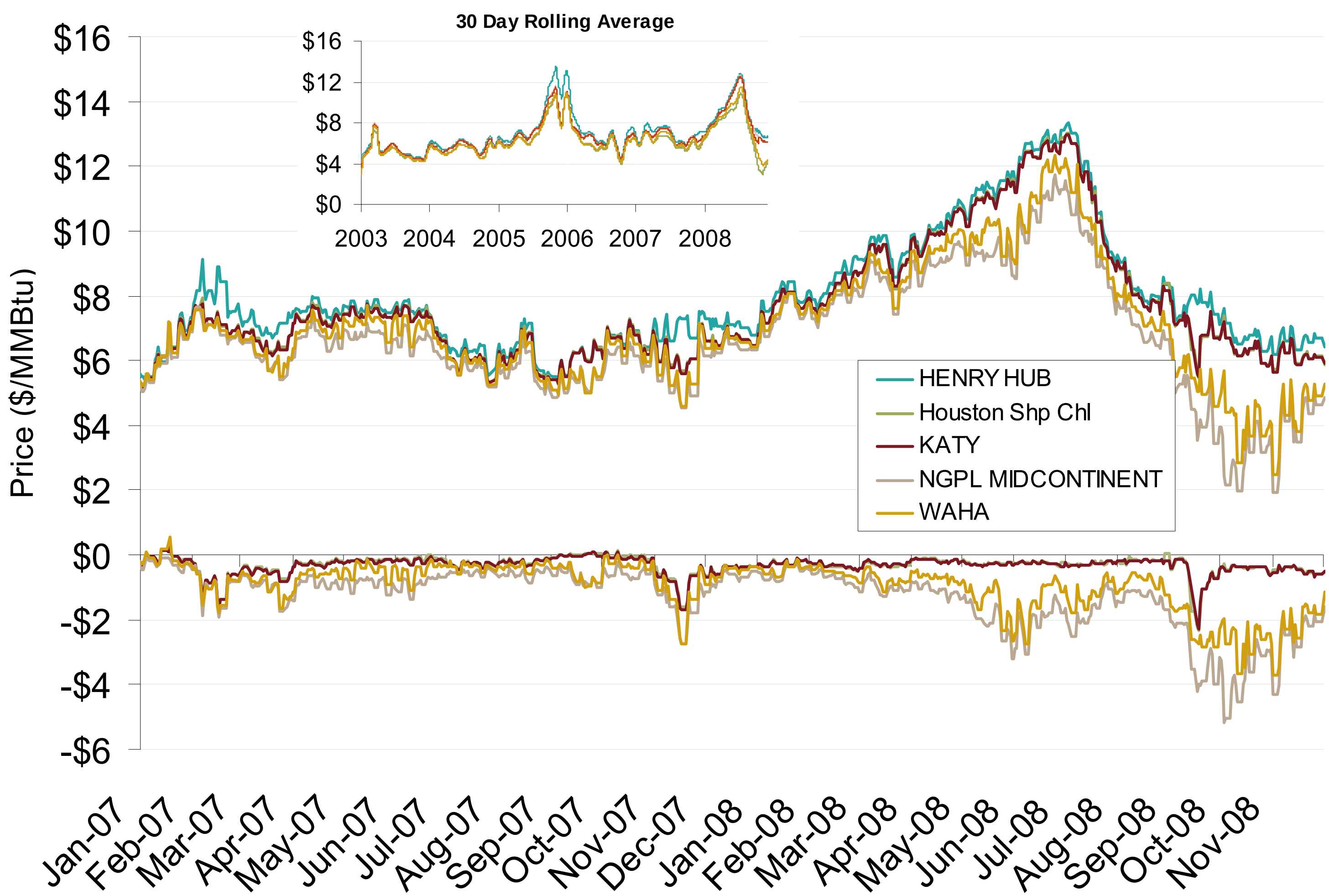
South Central Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

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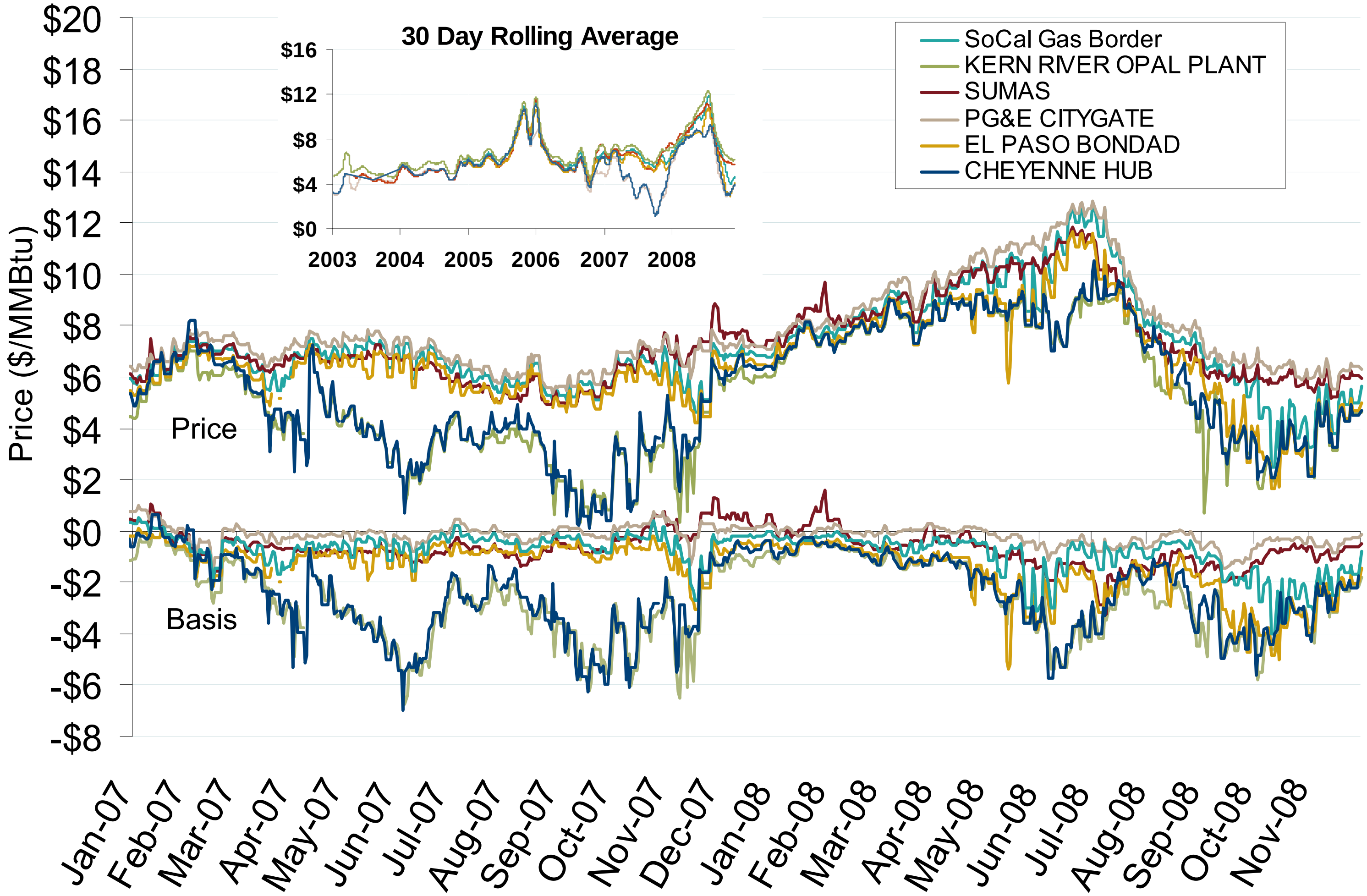
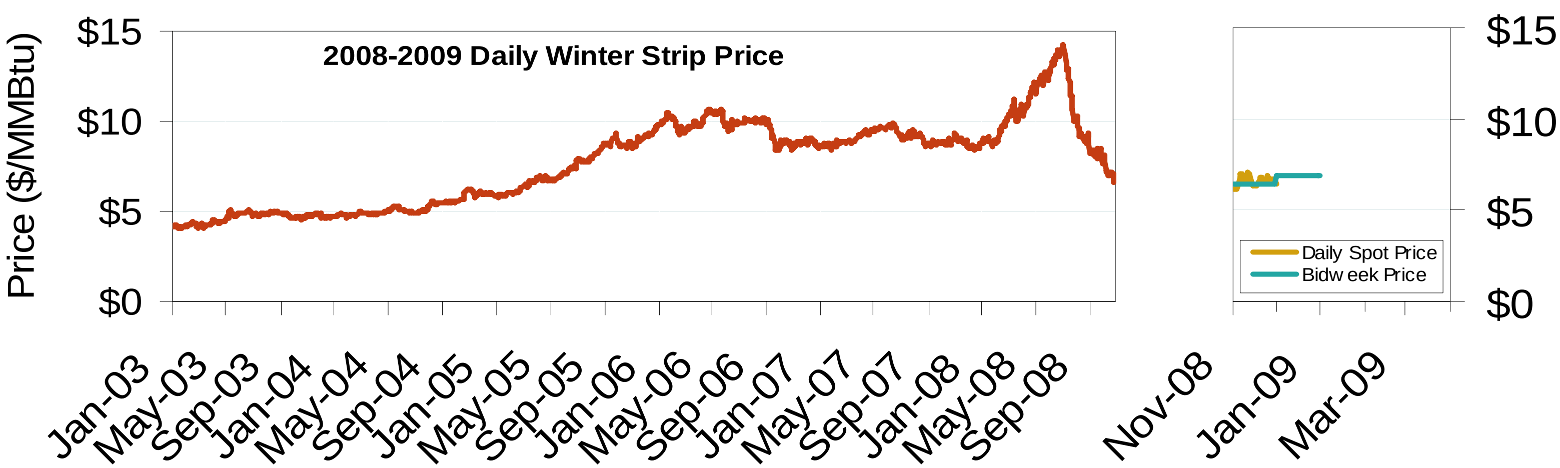
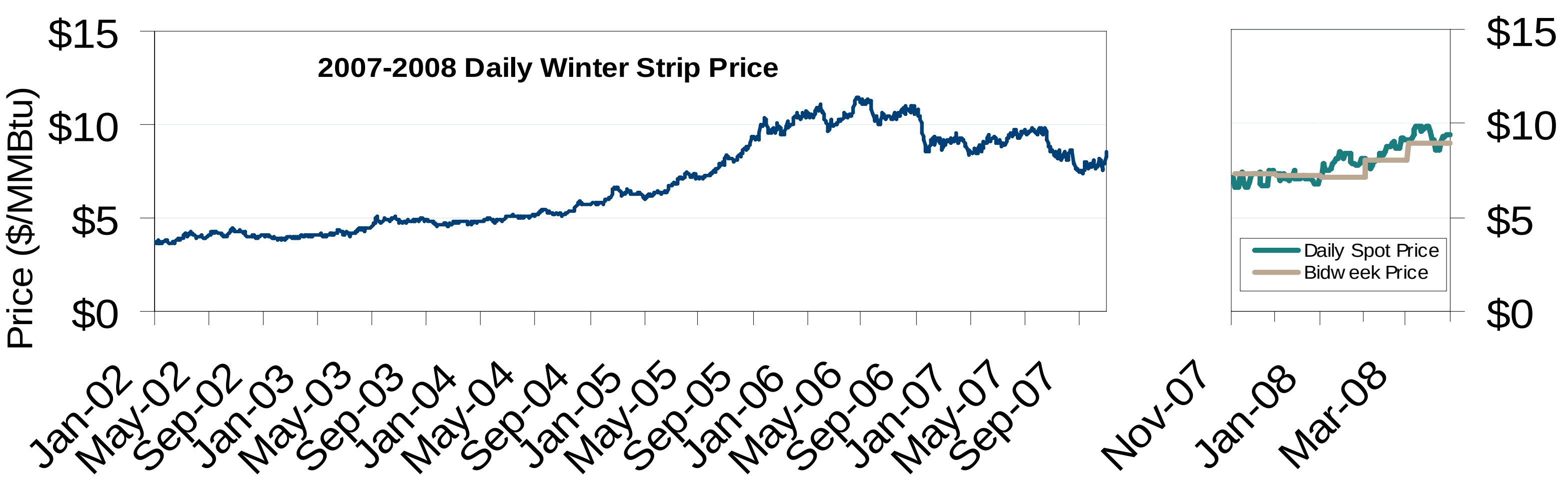
Western Day-Ahead Hub Spot Prices and Basis



Source: Derived from *Platts* data.

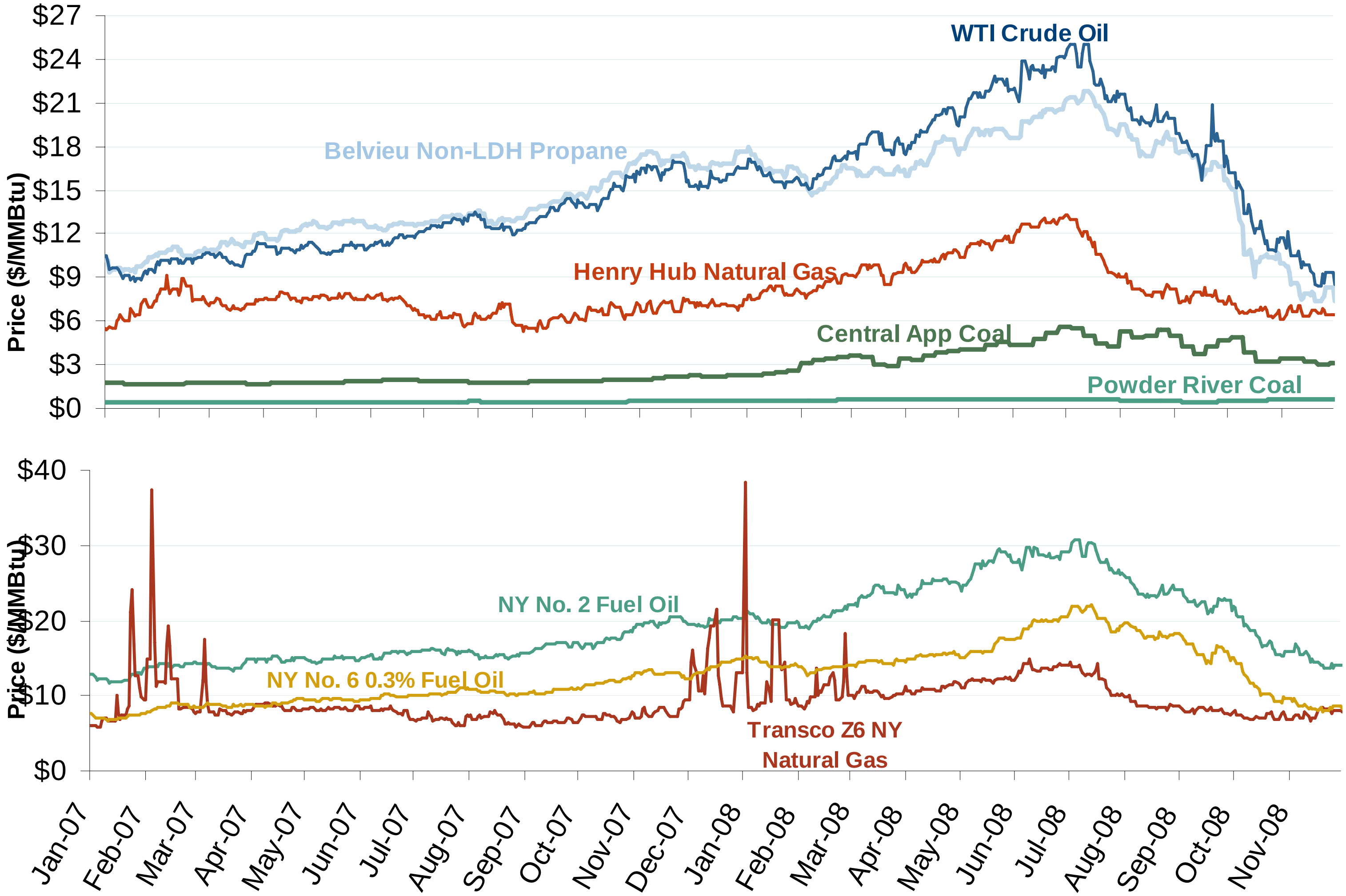
Natural Gas Winter Futures Strip and Daily Henry Hub Spot and Bidweek Prices





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

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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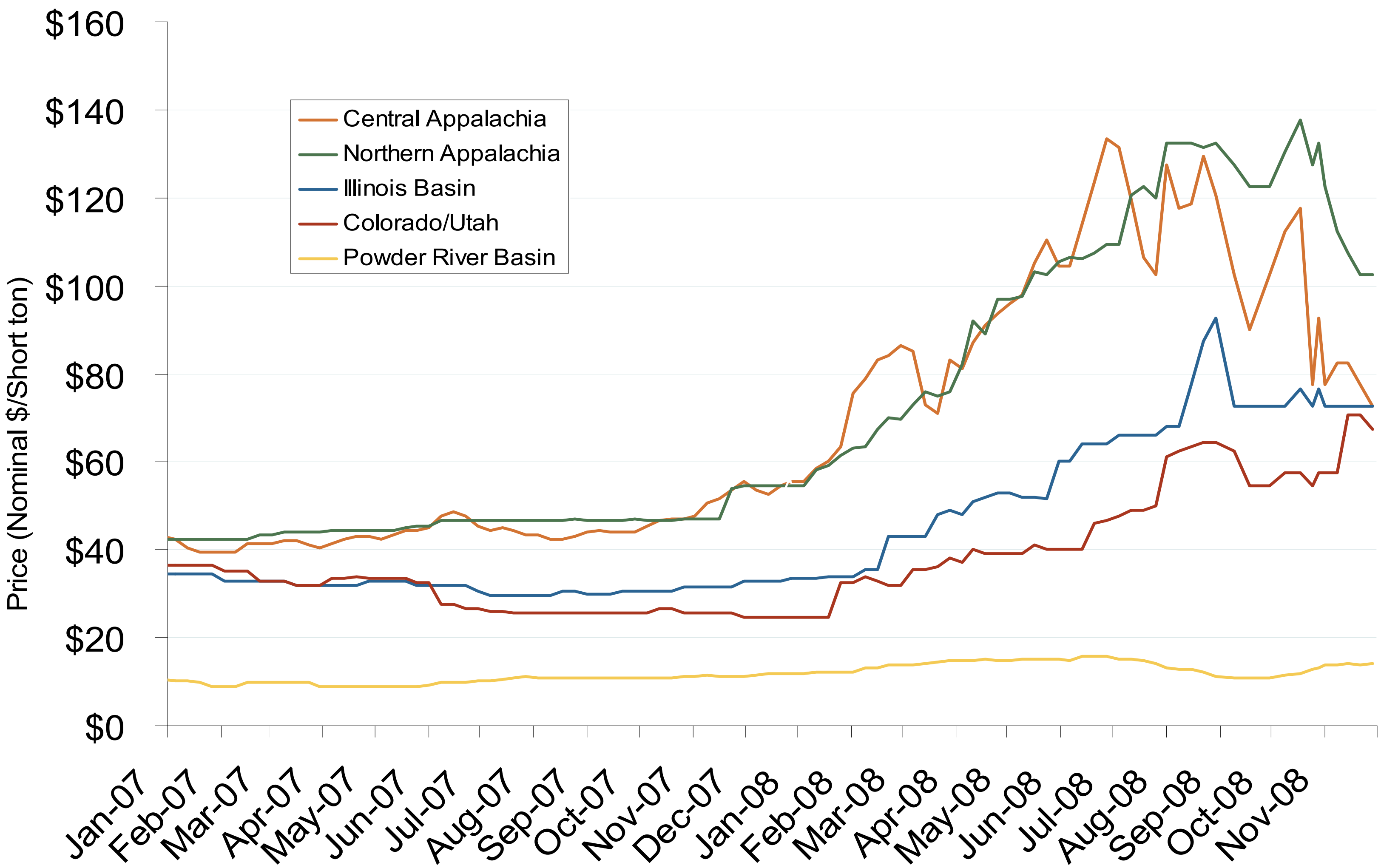
Regional Coal Spot Prices

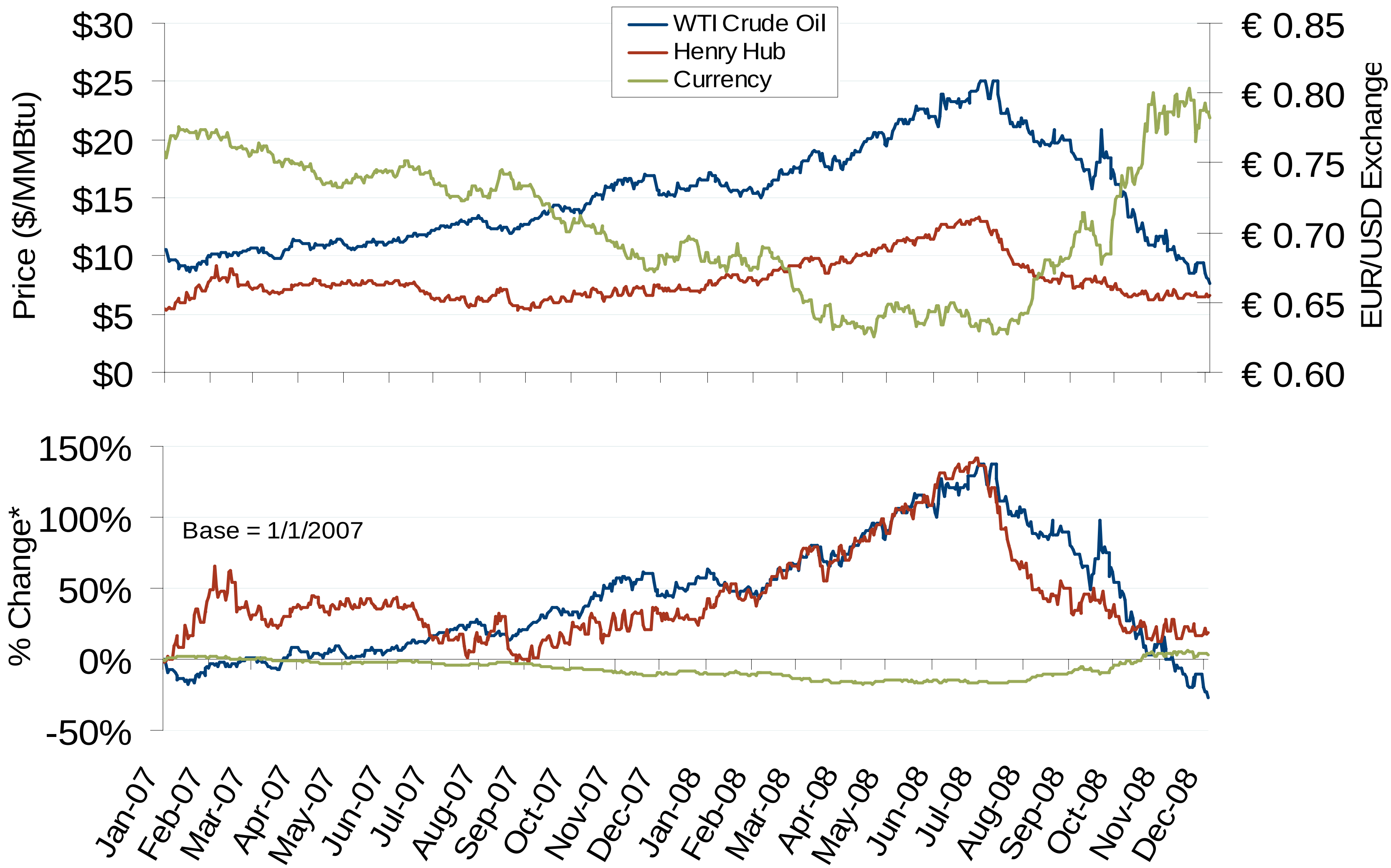


Note: Does not reflect the delivered price of coal; excludes incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.

Updated December 5, 2008

Oil, Natural Gas and Currency Spot Prices



Source: Derived from *Bloomberg* data.

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World LNG Estimated December 2008 Landed Prices

The U.S. Waterborne LNG Report, Nov. 25, 2008

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

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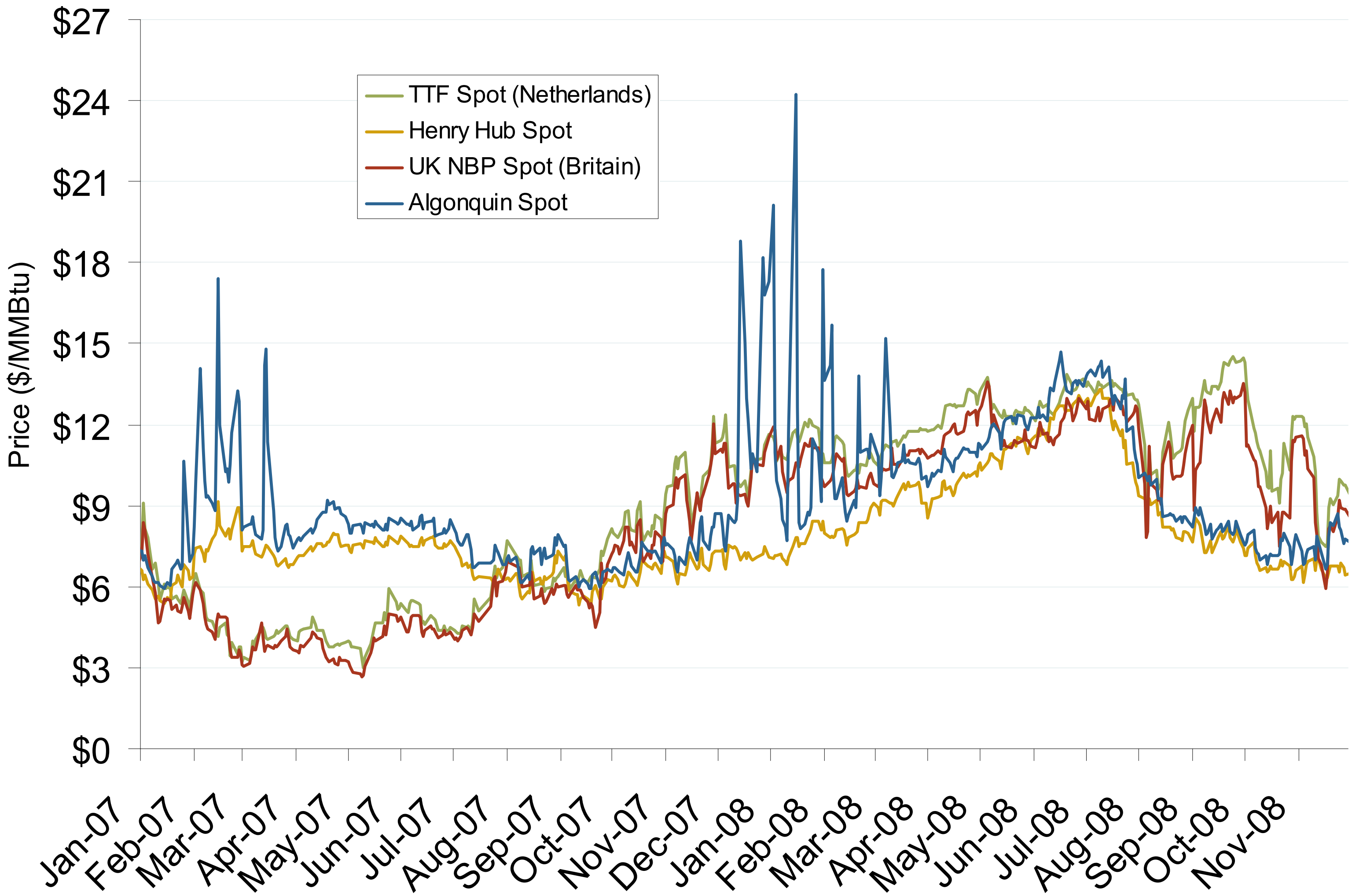
Atlantic Basin European and US Spot Natural Gas Prices



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

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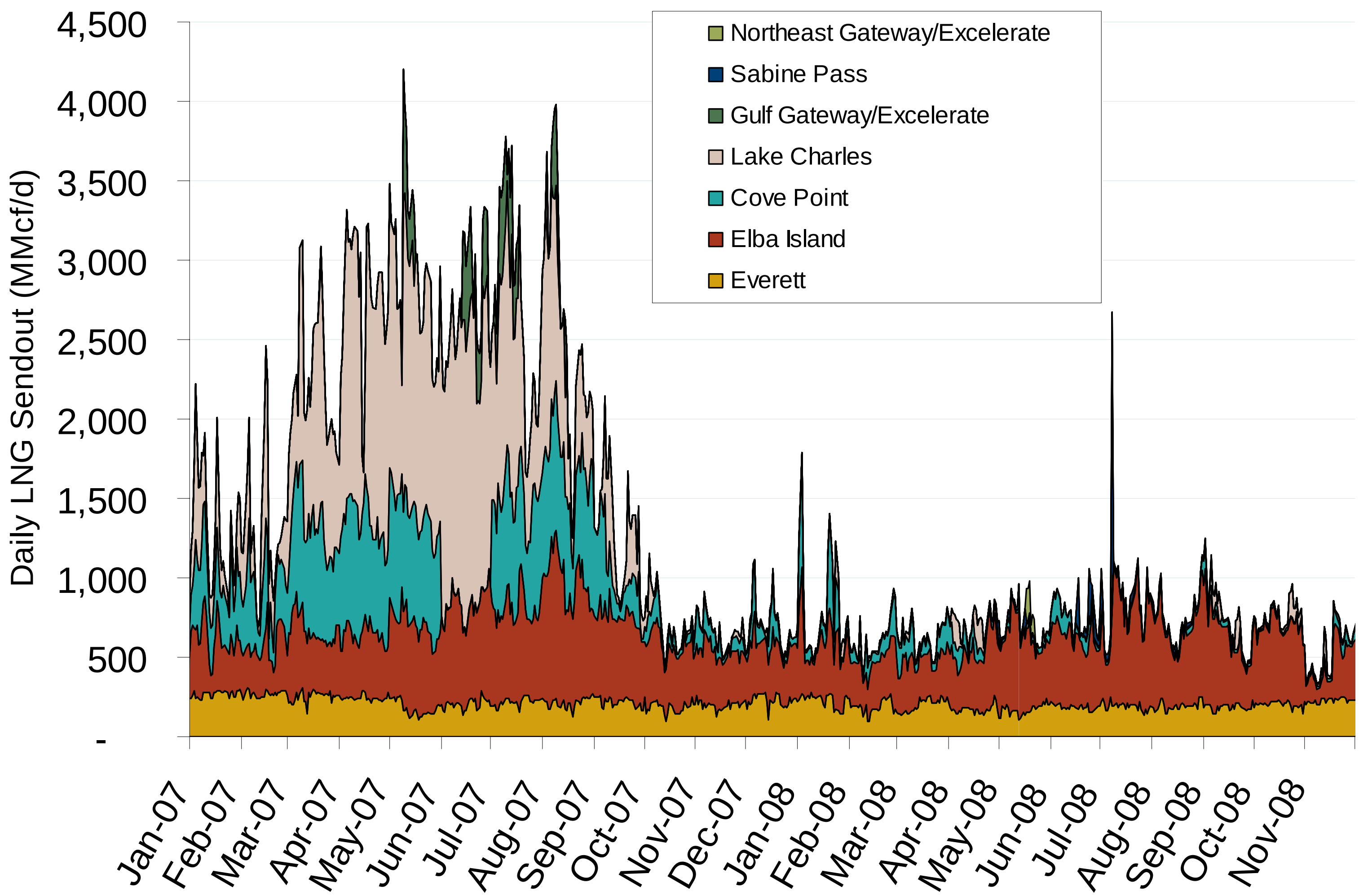
Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

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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