

OE ENERGY MARKET SNAPSHOT

Mid-Atlantic States Version – April 2011 Data

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

Office of Enforcement
Federal Energy Regulatory Commission
May 2011



Special Report:

- **2010 State of the Markets**

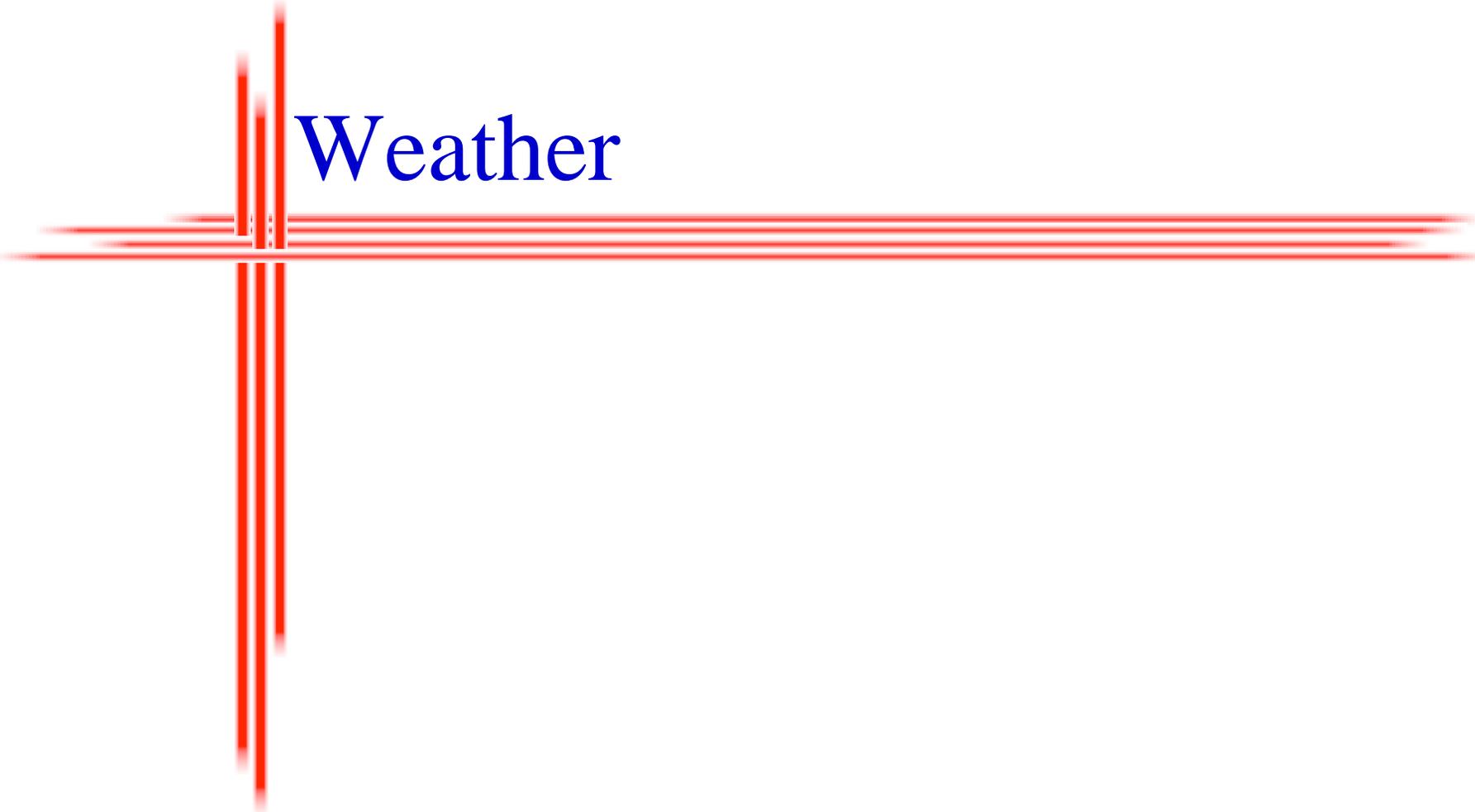


FEDERAL ENERGY REGULATORY COMMISSION

2010 State of the Markets

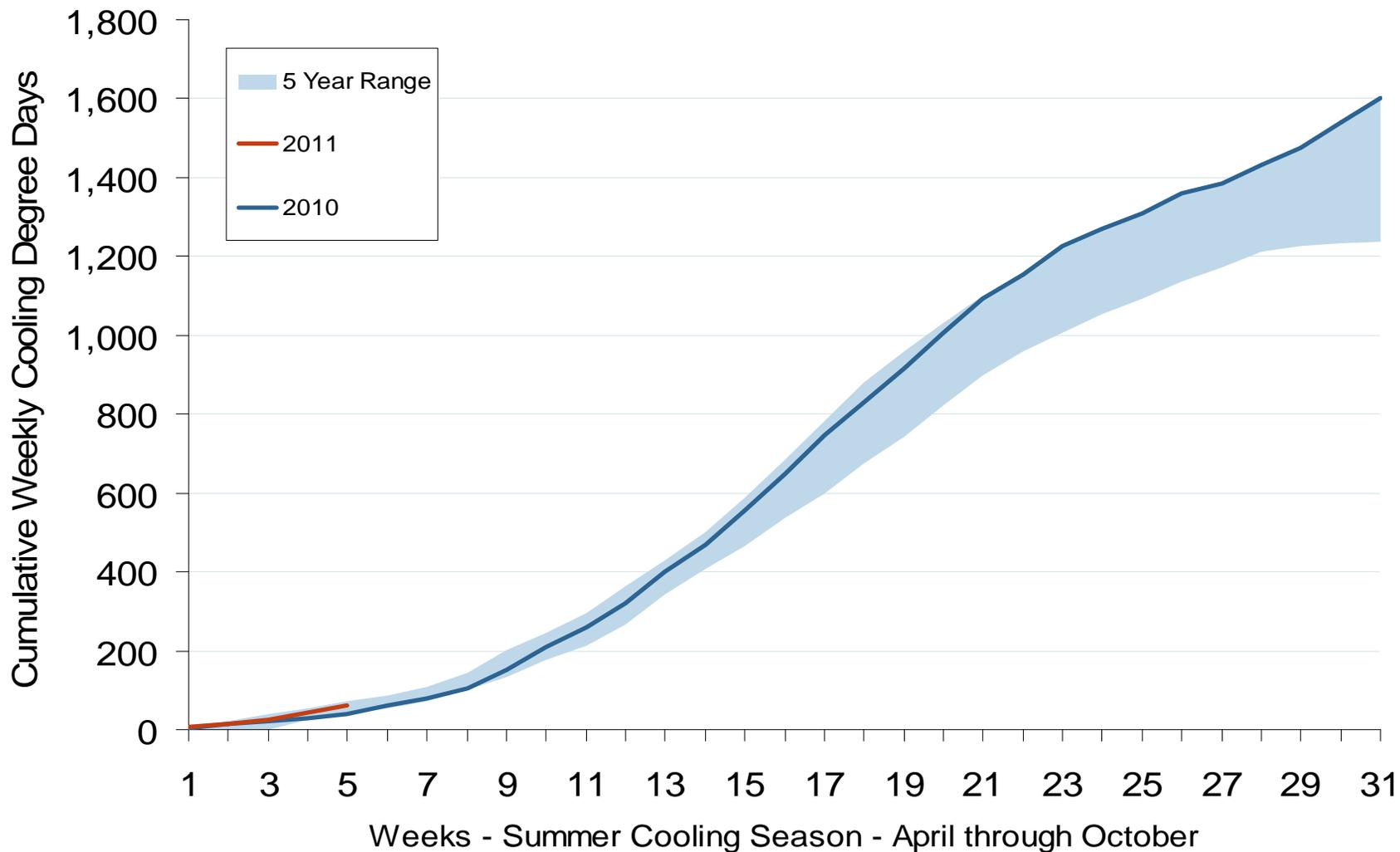
Item No: A-3
April 21, 2011

<http://www.ferc.gov/market-oversight/st-mkt-ovr/som-rpt-2010.pdf>



Weather

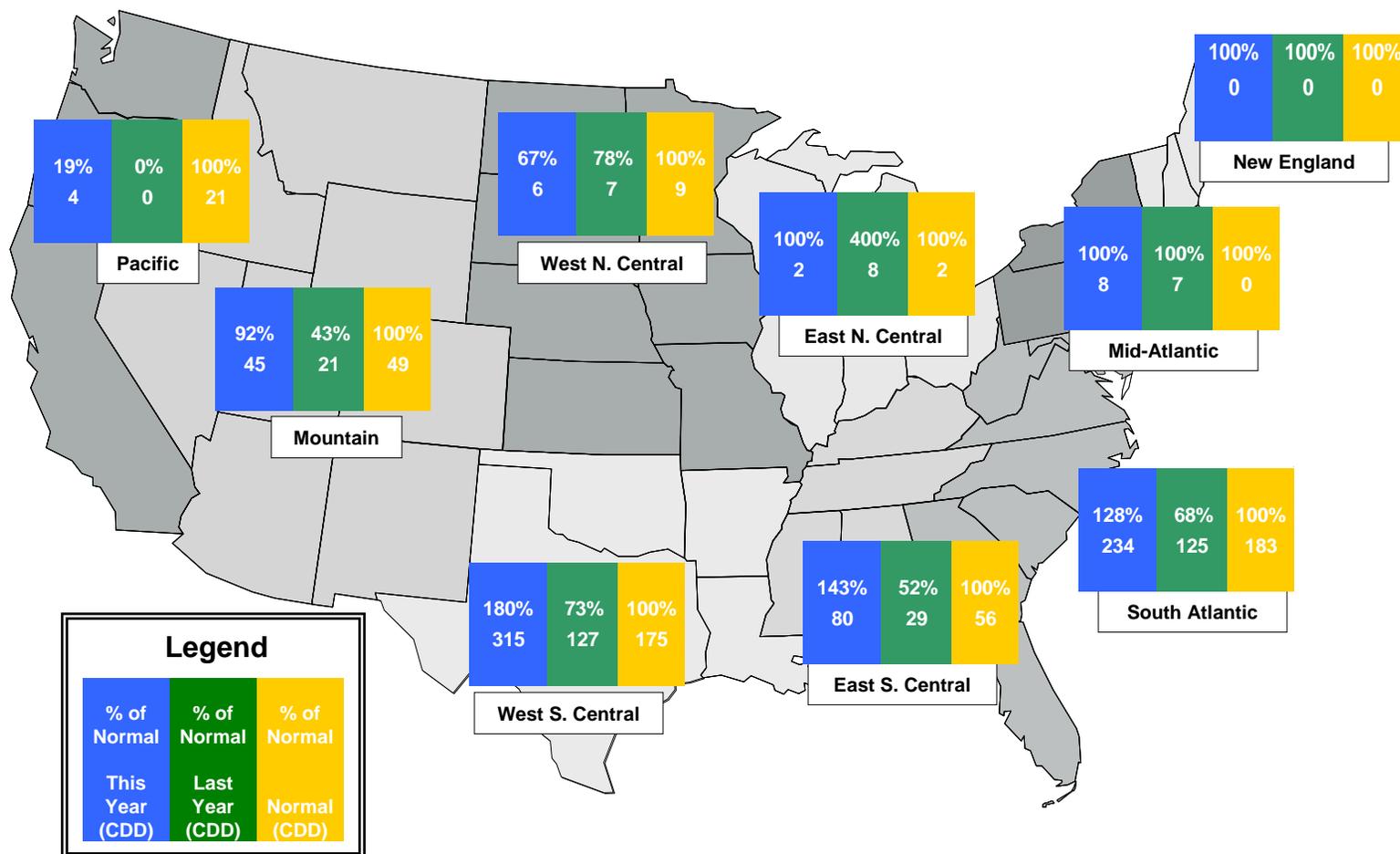
U. S. Summer Cumulative Cooling Degree Days - 2011



Source: Derived from NOAA data.

Updated May 6, 2011

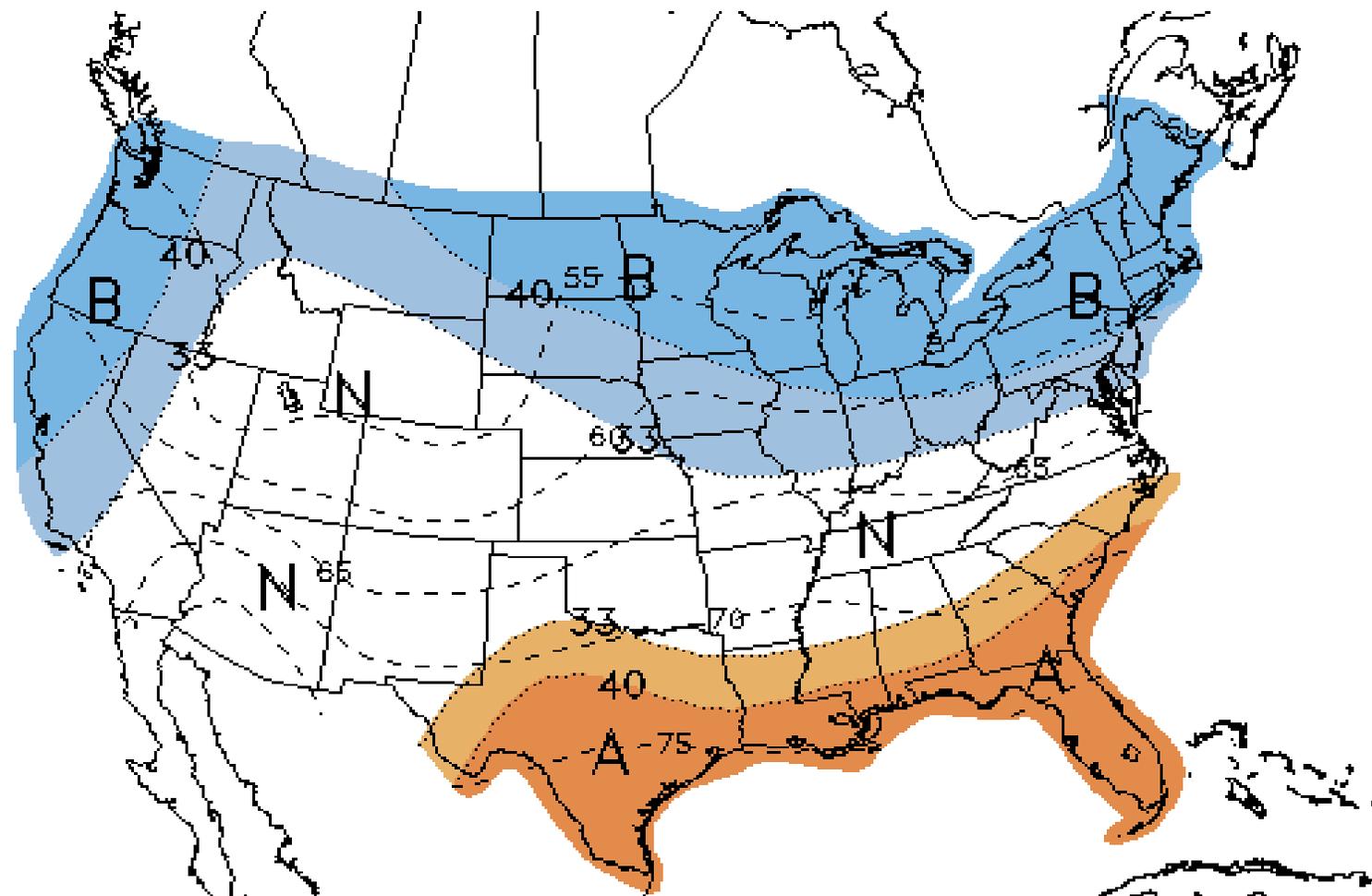
Regional Cooling Degree Days January Through April 2011



Source: Derived from NOAA data. Normal is based on a 30-year average of heating degree day data.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

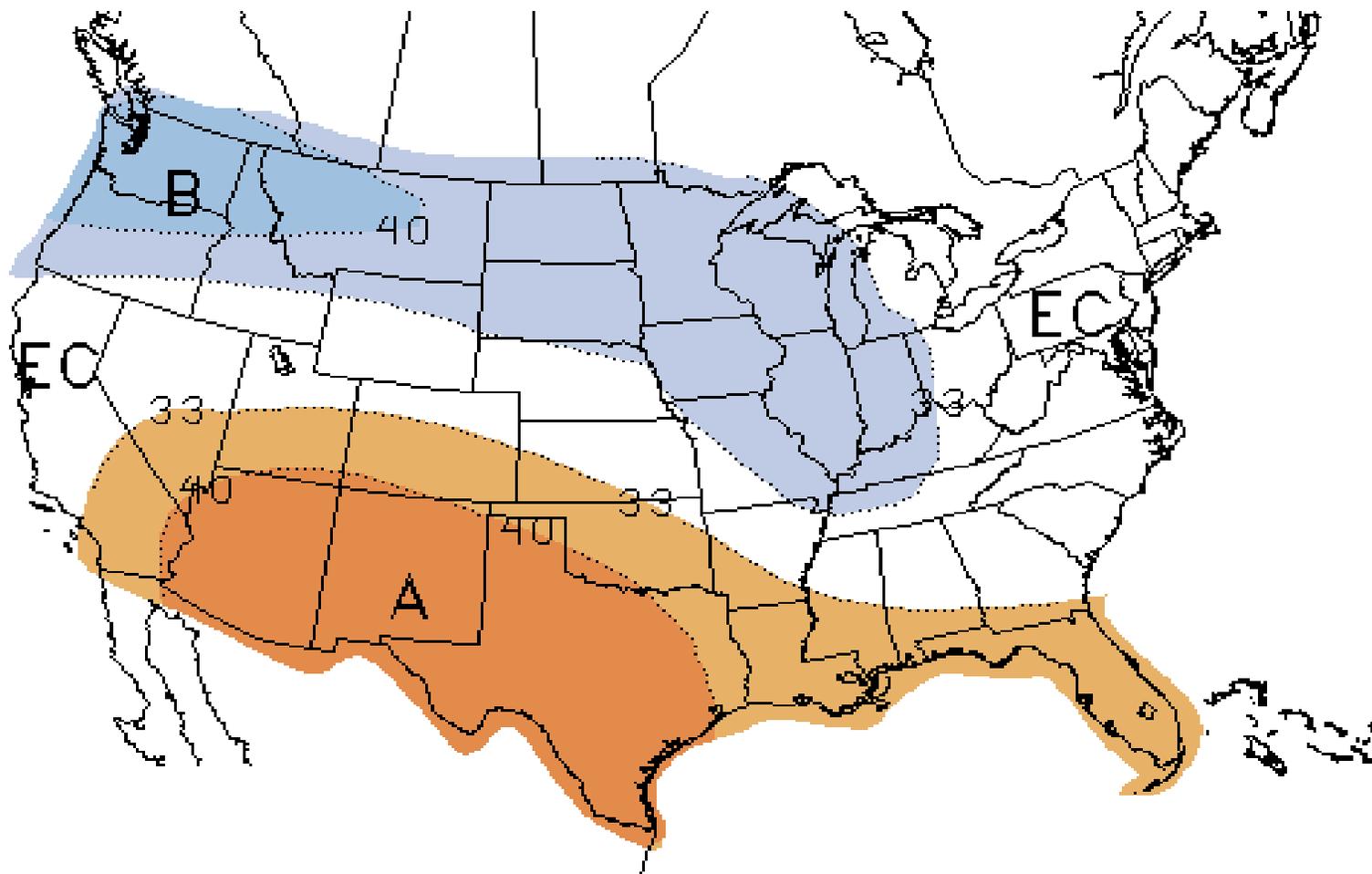
NOAA's 8 to 14 Day Temperature Forecast Made May 3, 2011, Valid for May 2011



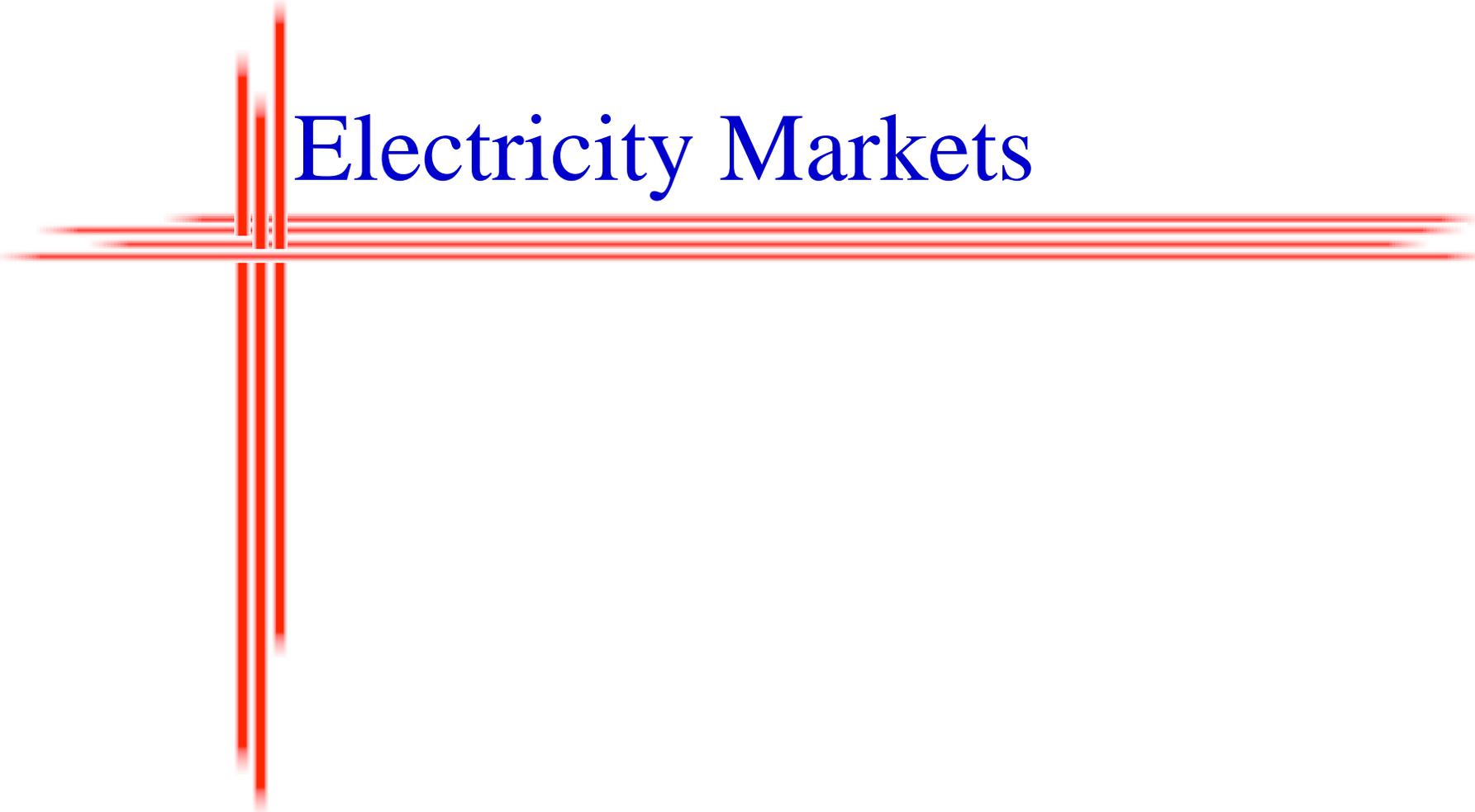
Note: "A" areas are above normal and "B" areas are below normal. Normal is based on the last 30 years of data.

Source: Derived from NOAA data.

NOAA's Monthly Temperature Forecast Made April 30, 2011, Valid for May 2011

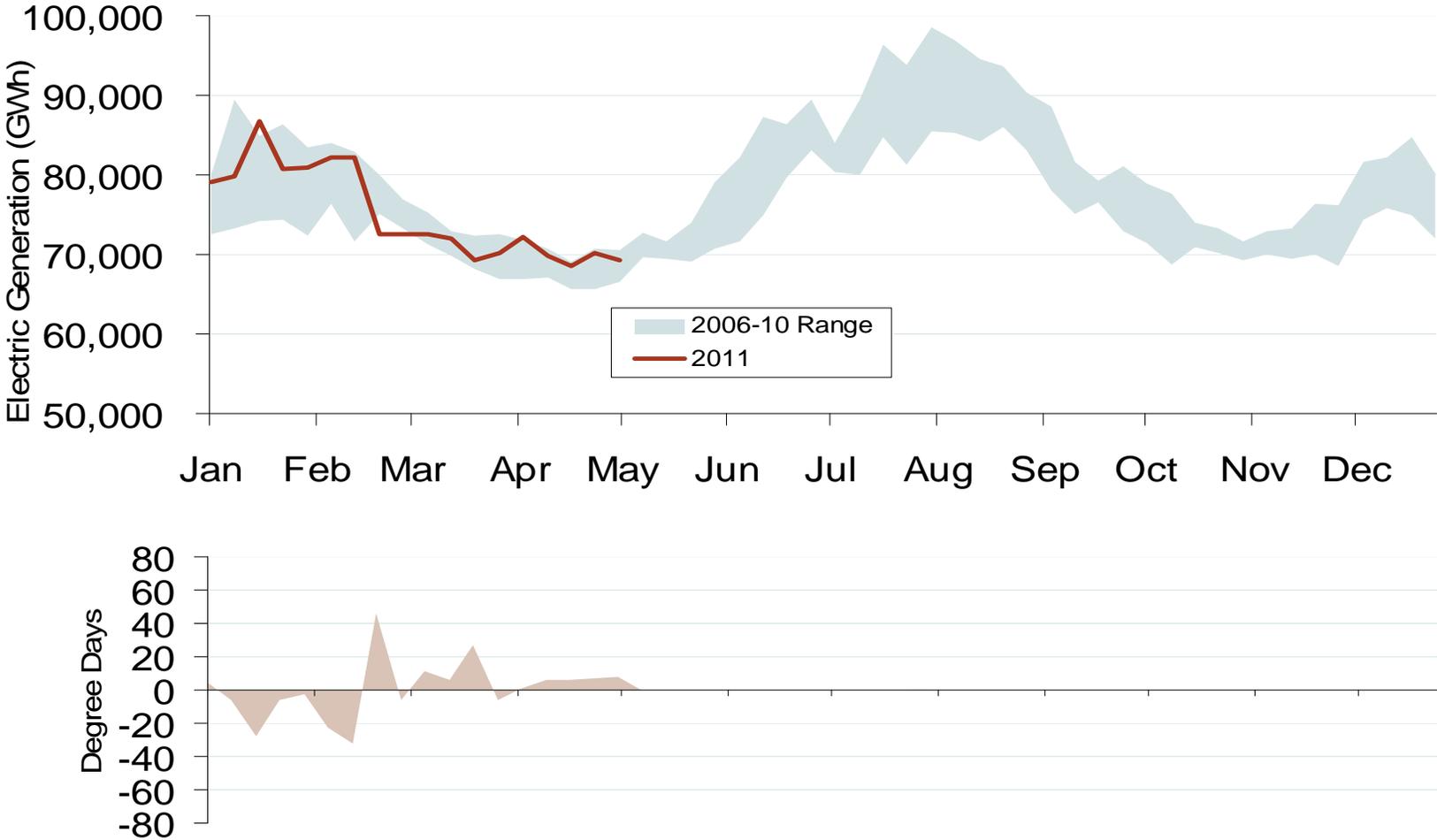


Note: "A" areas are above normal, "B" areas are below normal and "EC" means equal chance. Normal is based on the last 30 years of data.
Source: Derived from NOAA data.



Electricity Markets

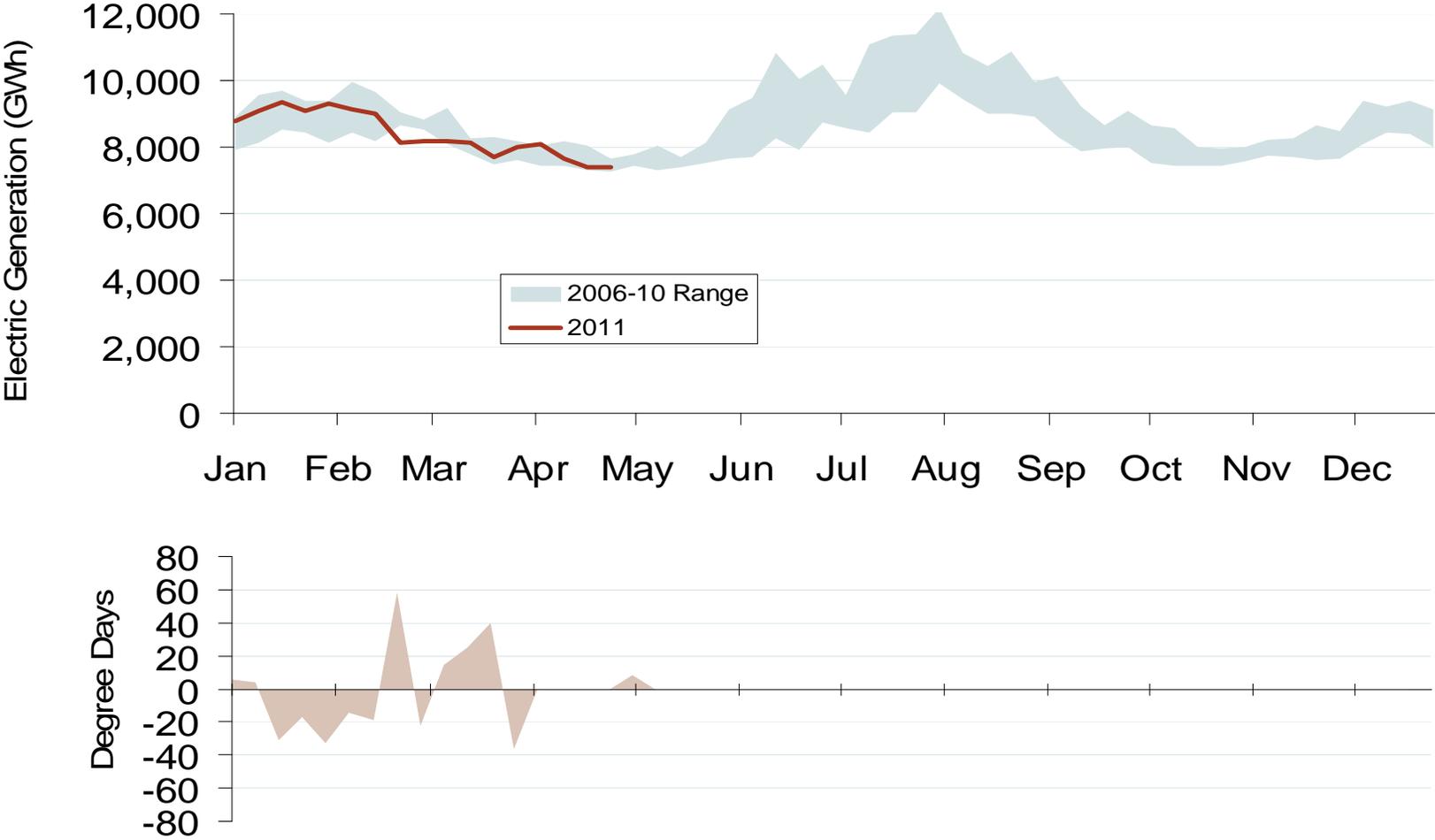
Weekly U.S. Electric Generation Output and Temperatures



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

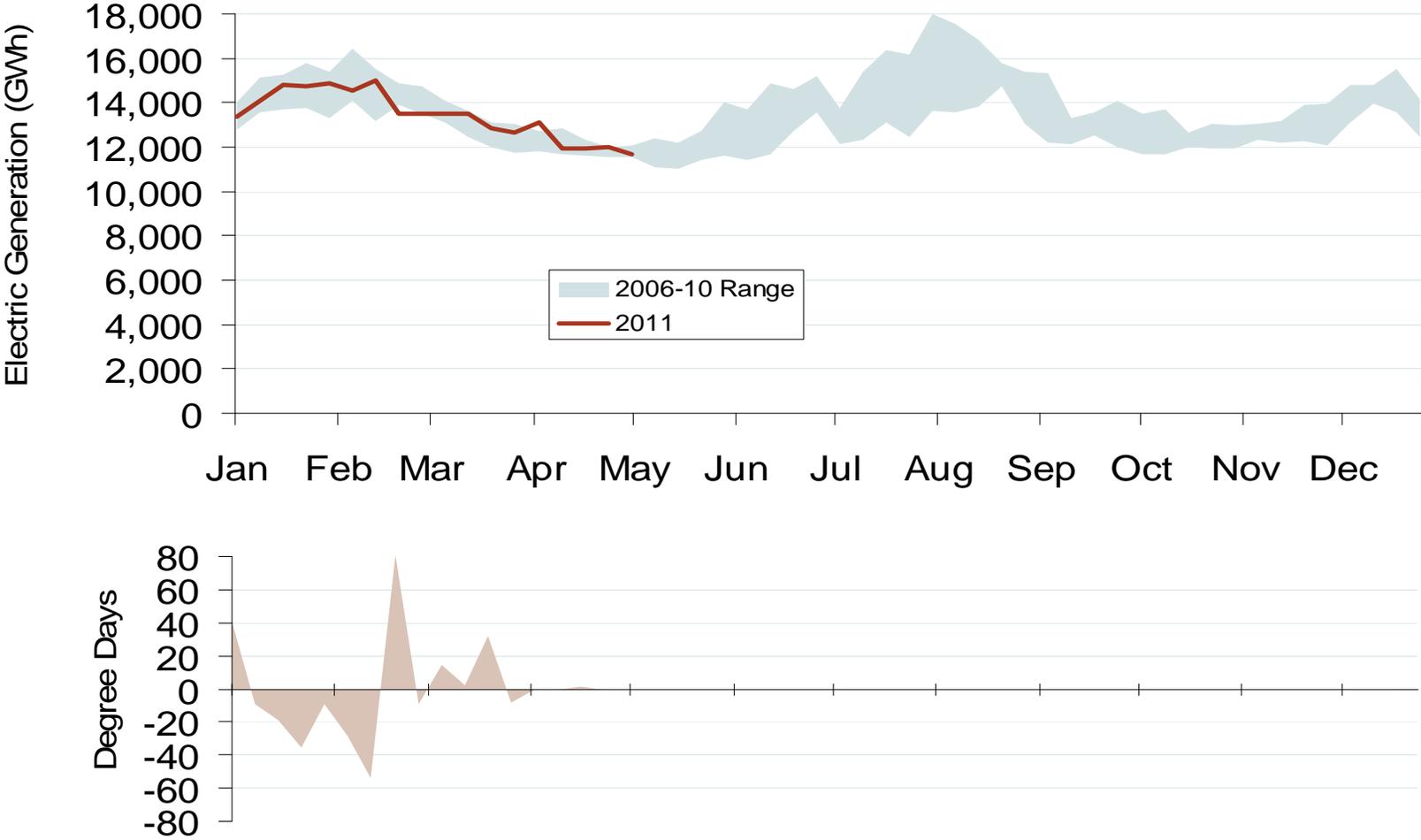
Updated May 6, 2011

Weekly Electric Generation Output and Temperatures Mid Atlantic Region



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

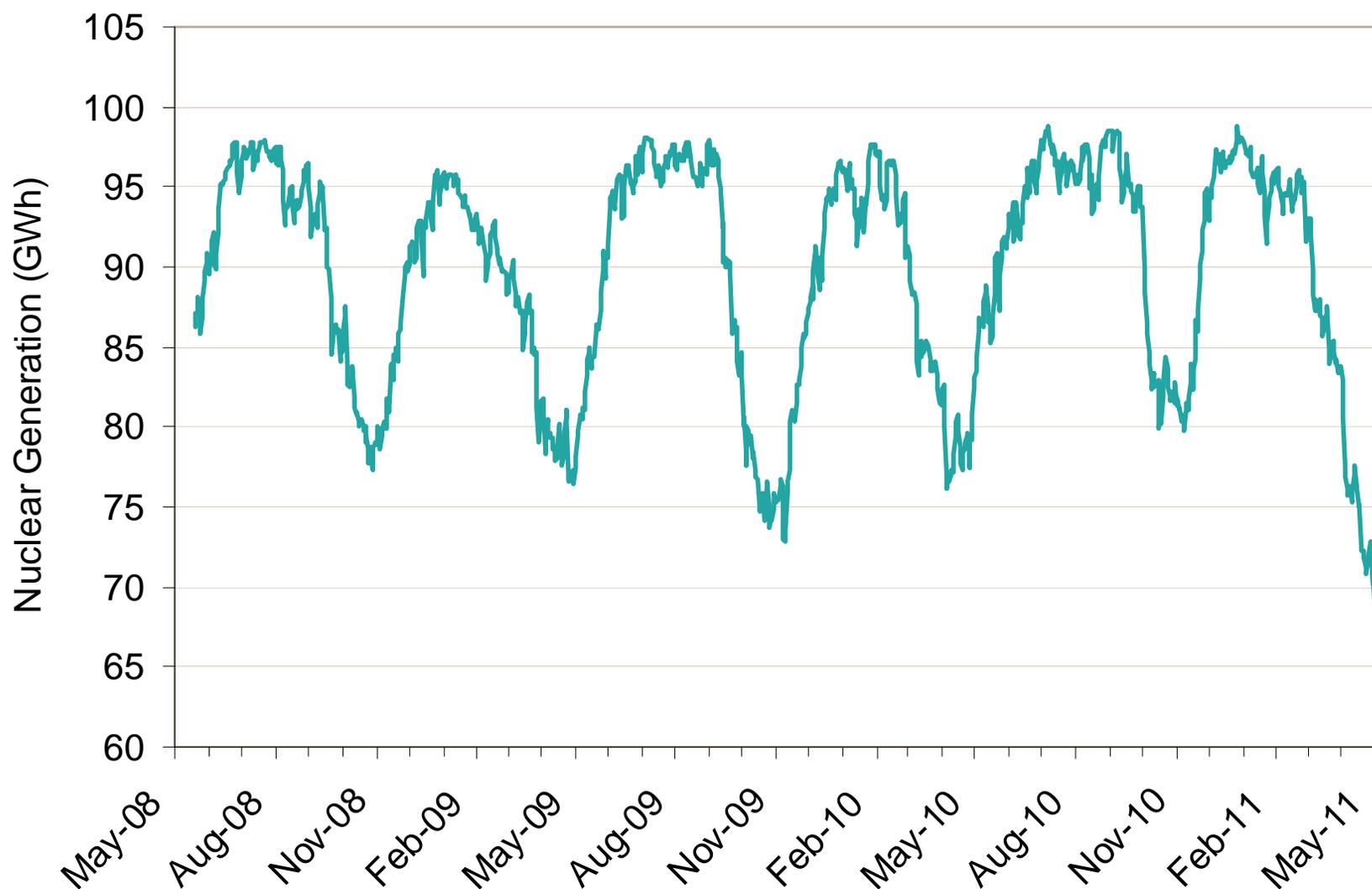
Weekly Electric Generation Output and Temperatures Central Industrial Region



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

Updated May 6, 2011

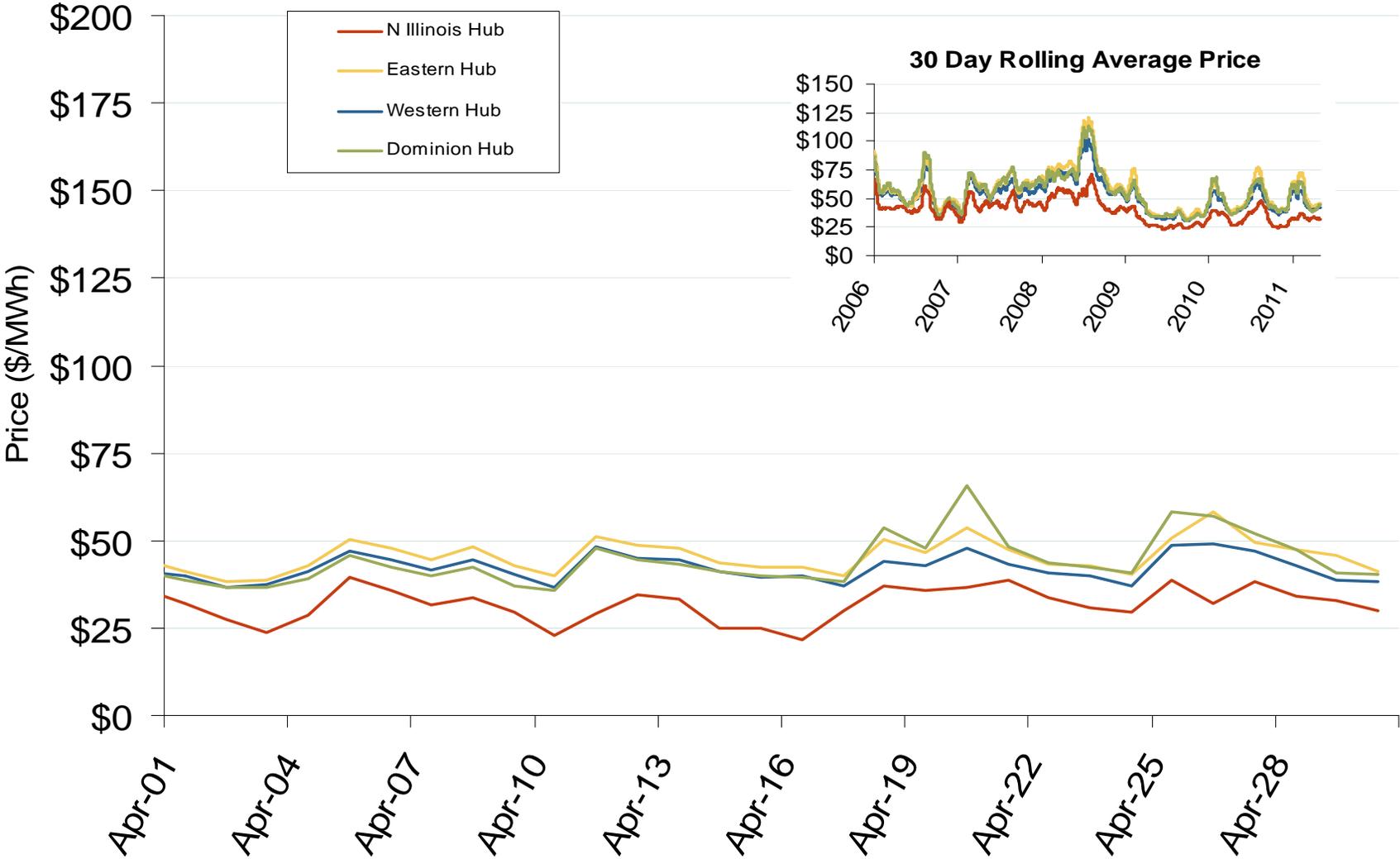
Spring 2011 Nuclear Outages Greater Than Usual



Source: Derived from Bloomberg Data

Updated May 9, 2011

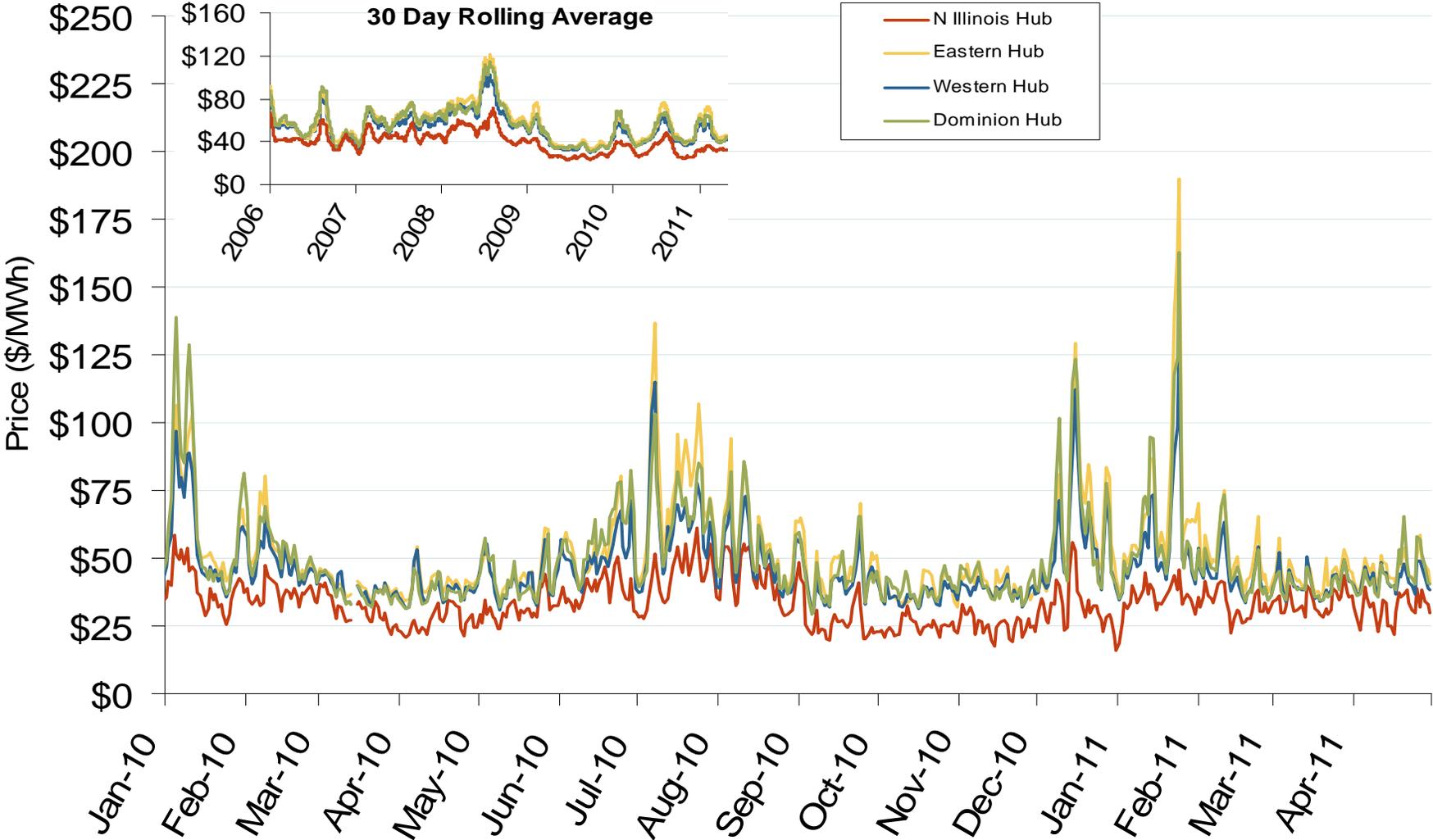
Daily Average of PJM Day-Ahead Prices - All Hours



Source: Derived from Bloomberg PJM data.

Updated May 6, 2011

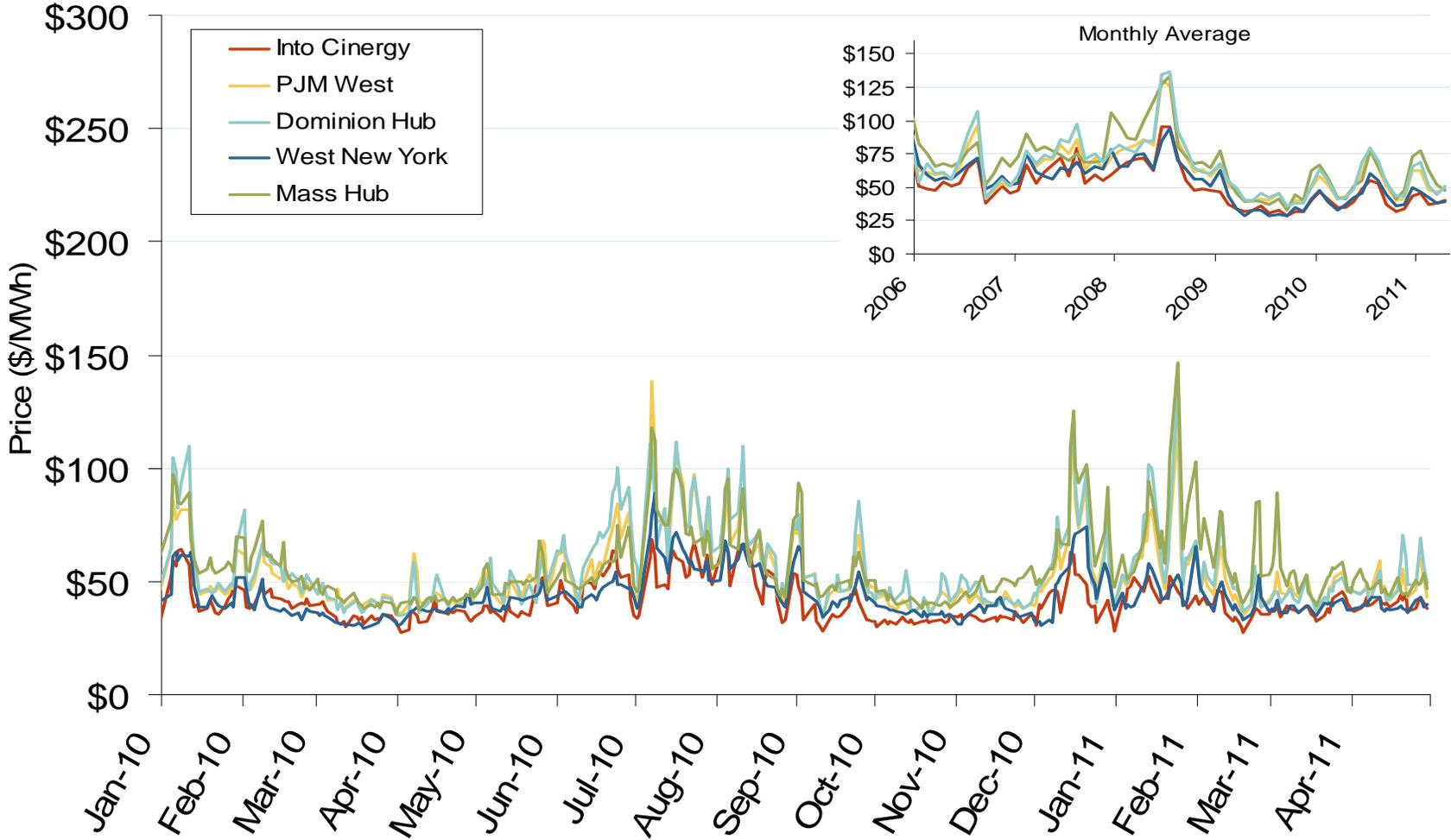
Daily Average of PJM Day-Ahead Prices - All Hours



Source: Derived from *Bloomberg* data.

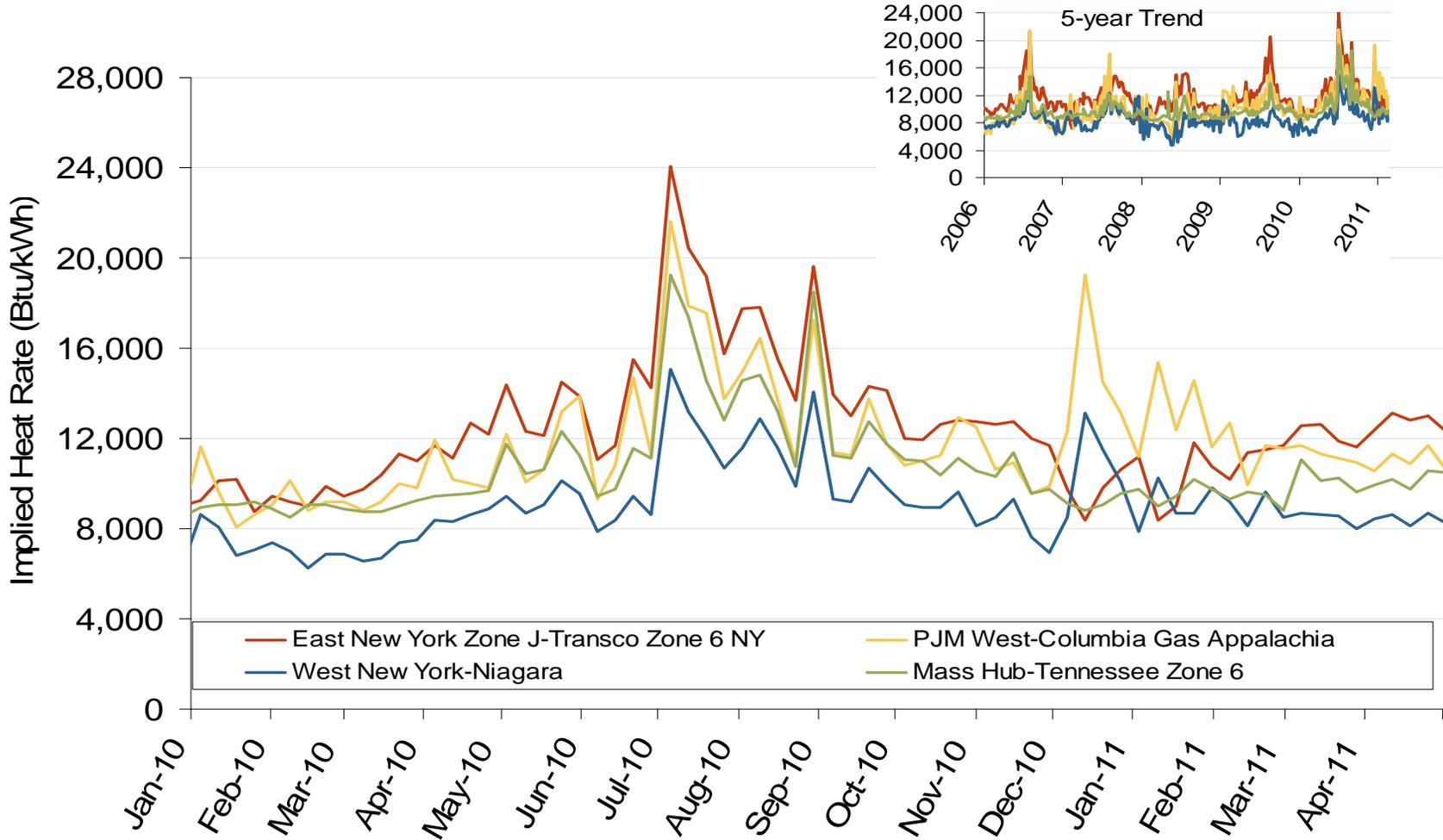
Updated May 6, 2011

Eastern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

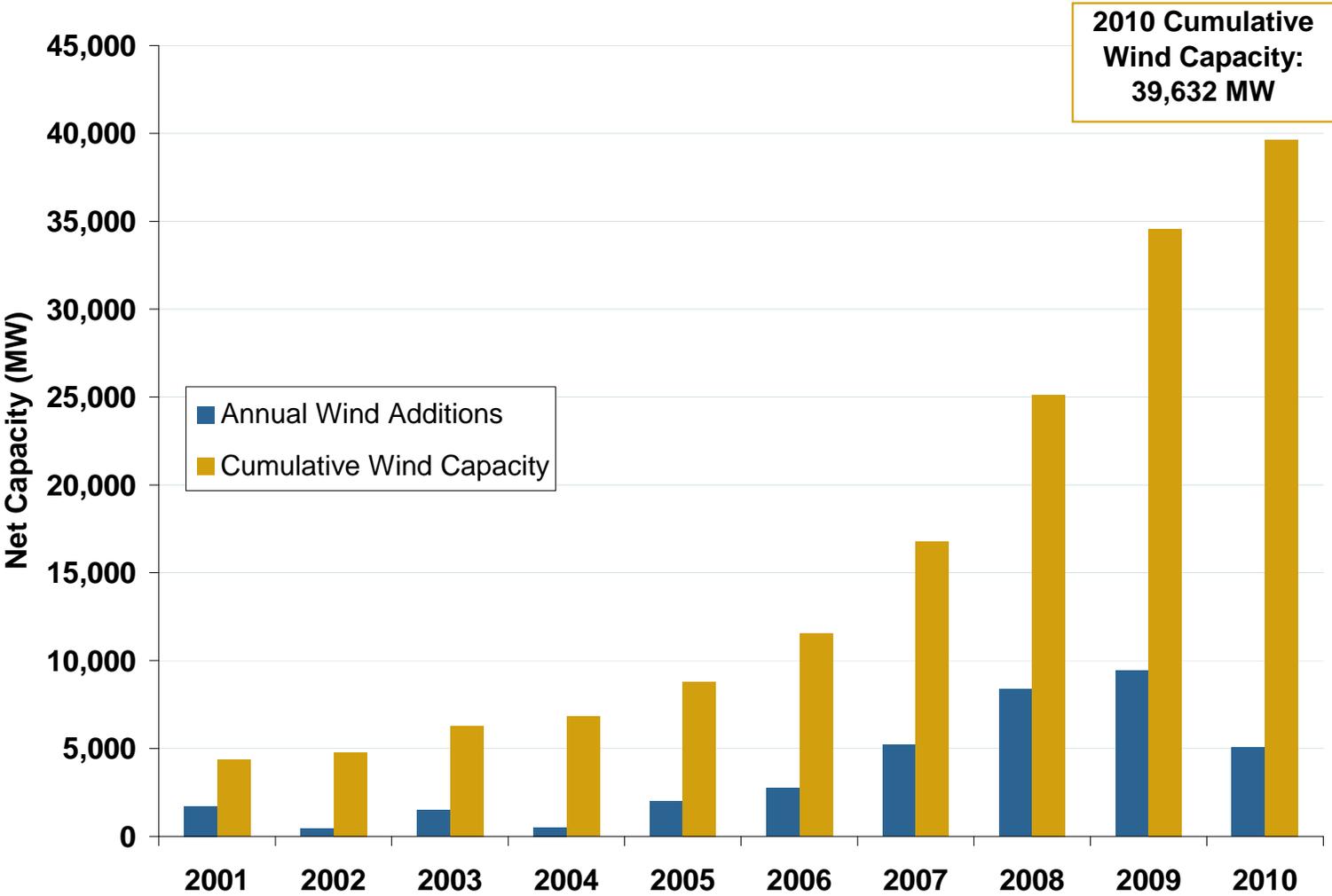
Implied Heat Rates at Eastern Trading Points Weekly Averages



Source: Derived from *Platts* on-peak electric and natural gas price data.

Updated May 6, 2011

U.S. Wind Capacity Growth, 2001 – 2010

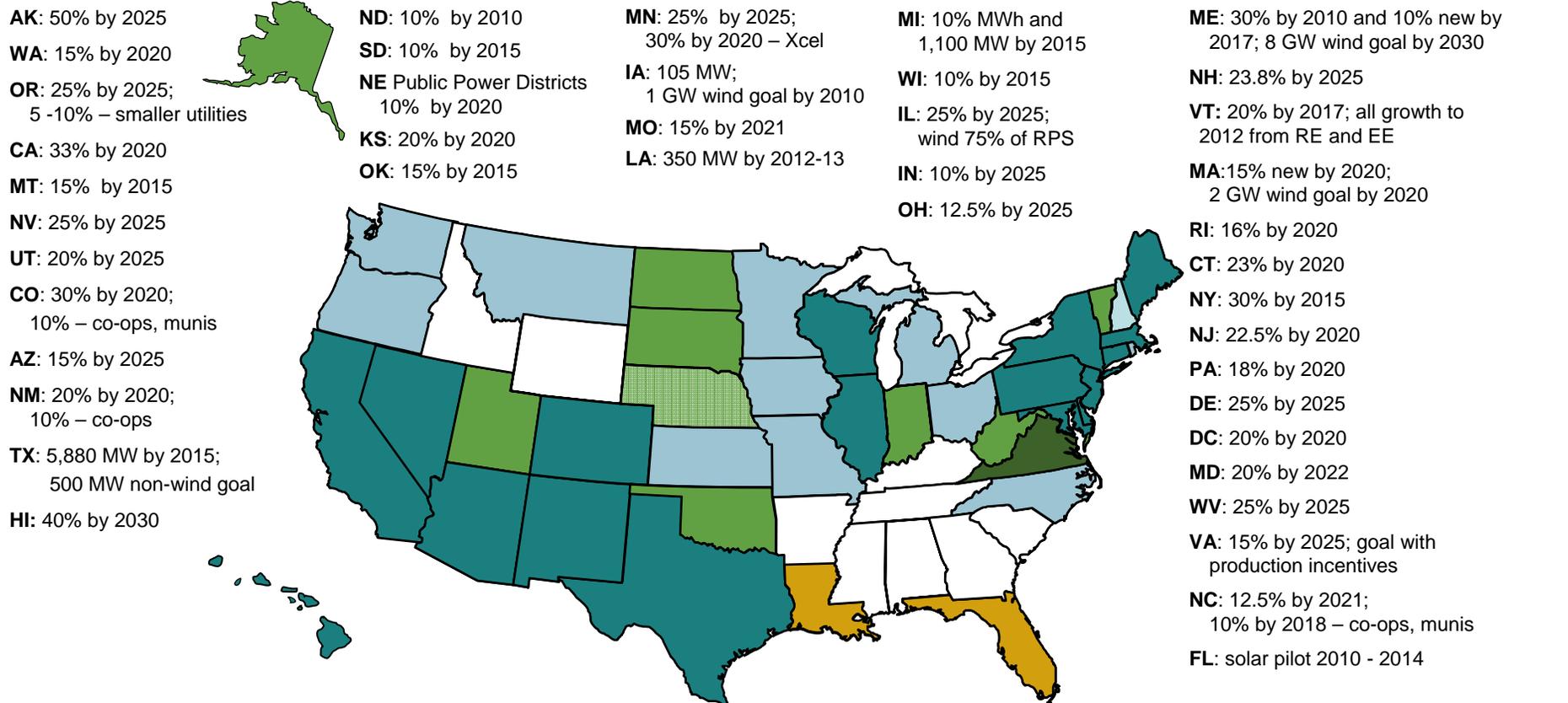


Source: Energy Velocity Generating Unit Capacity Dataset
May 2011 Mid-Atlantic Snapshot Report

Updated May 4, 2011

Renewable Portfolio Standards (RPS) and Goals

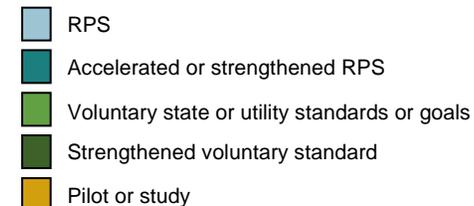
29 states and D.C. have RPS policies; 9 states and 3 power authorities have nonbinding goals



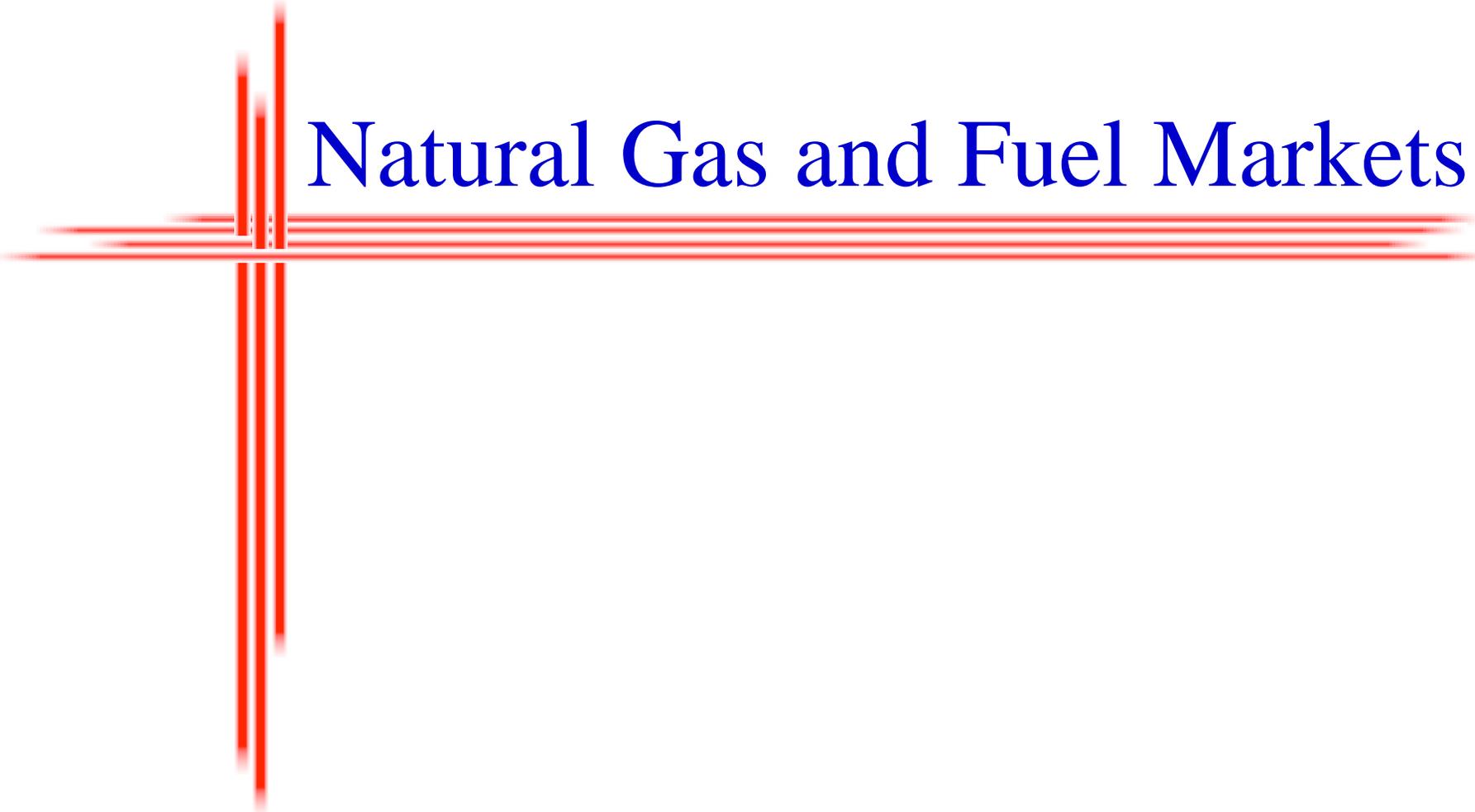
Updates at: <http://www.ferc.gov/market-oversight/othr-mkts/renew.asp>

Notes: A Renewable Standard requires a percent of an electric provider’s energy sales (MWh) or installed capacity (MW) to come from renewable resources; most specify sales (MWh). Map percents are final years’ targets. Nebraska’s two largest public power districts, which serve close to two-thirds of its load, have renewable goals. The Tennessee Valley Authority’s (TVA) goal across its 7-state territory is 50% zero- or low-carbon generation by 2020.

Sources: derived from data from: Lawrence Berkeley Labs, state Public Utility Commission (PUC) and state legislative tracking services, Pew Center. Details, including timelines, are in the *Database of State Incentives for Renewables and Energy Efficiency*: <http://www.dsireusa.org>



Updated May 3, 2011

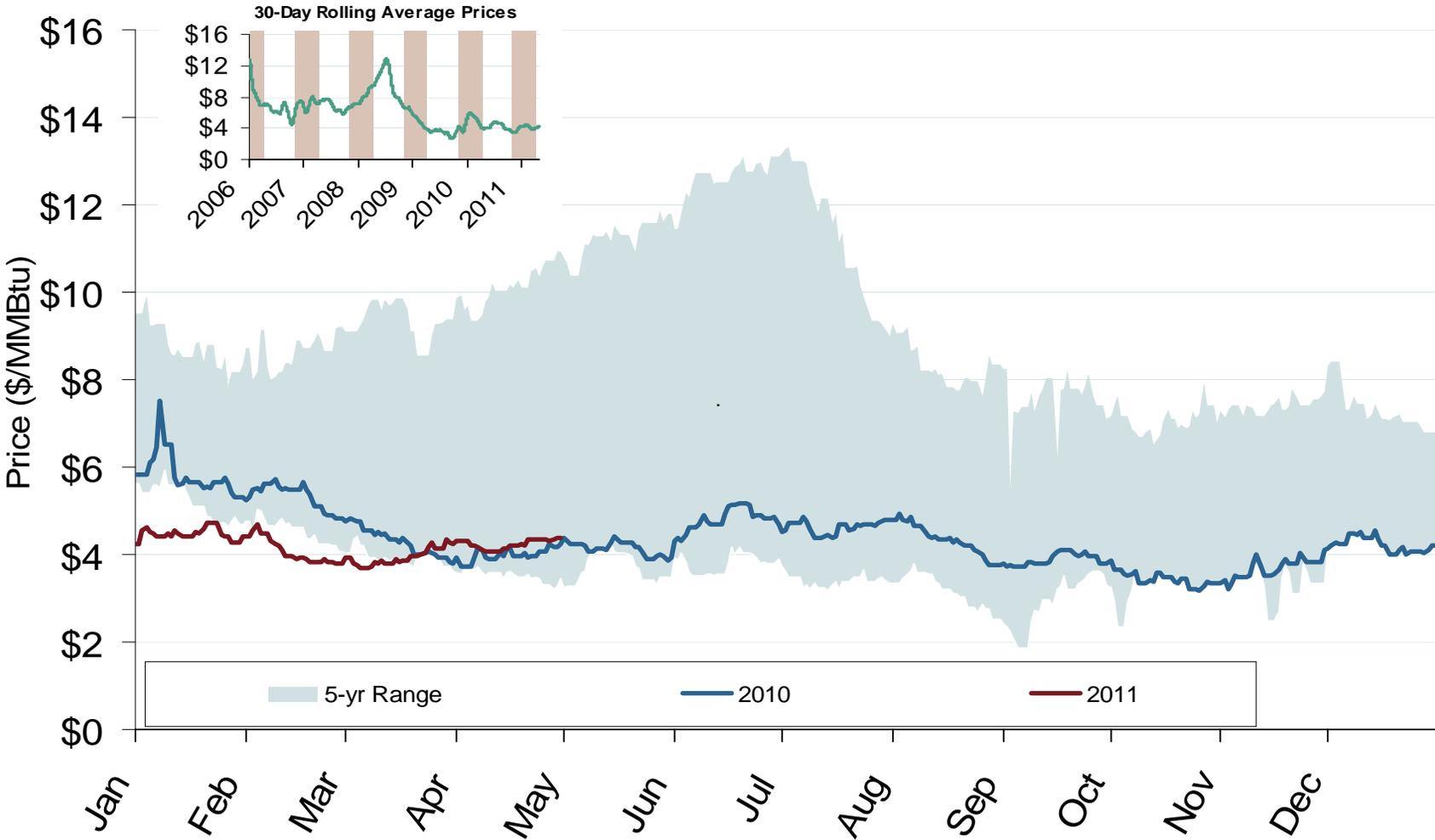


Natural Gas and Fuel Markets

Natural Gas Market Overview: 5 Year Range of Henry Hub Spot Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

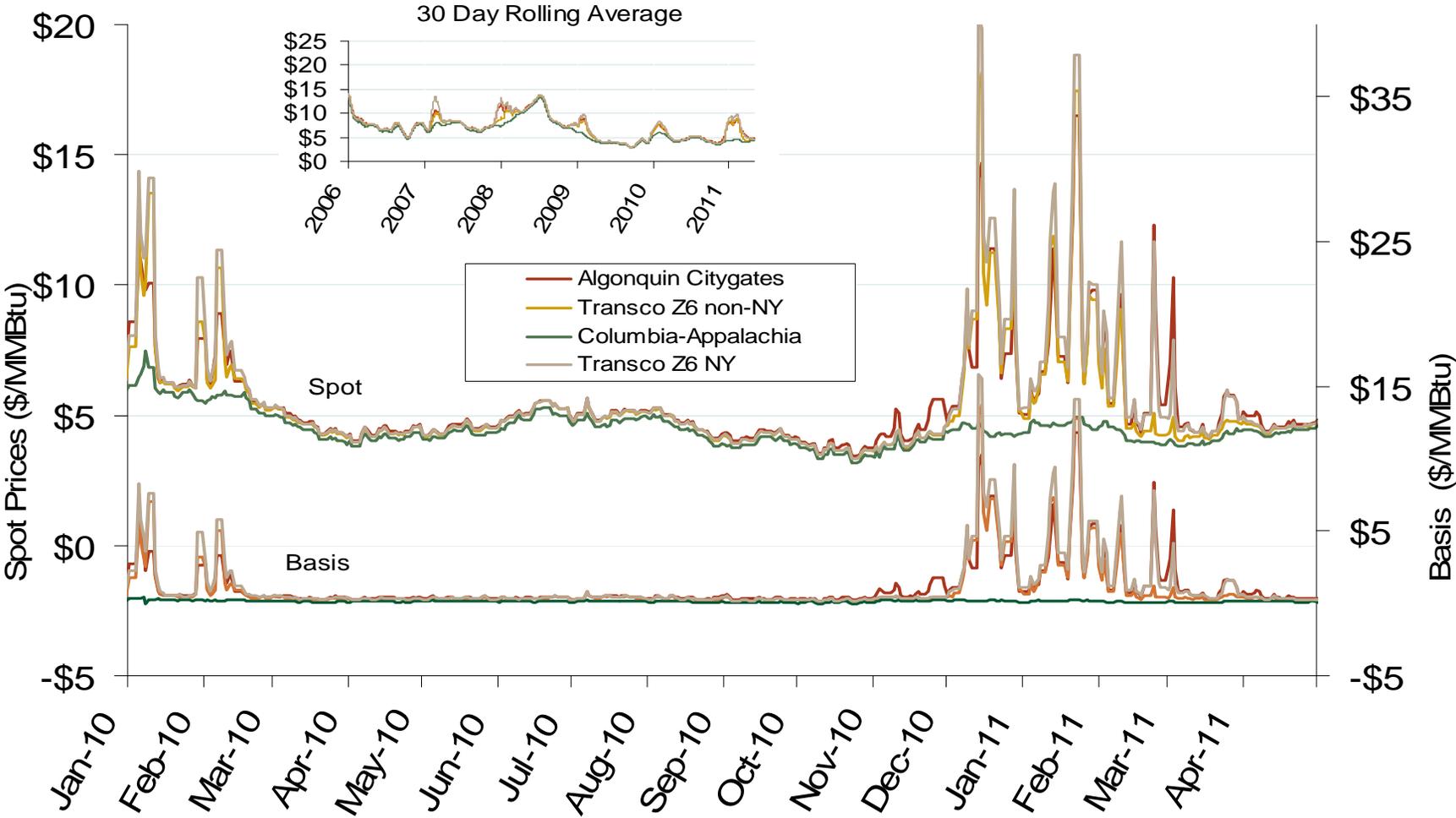
Henry Hub Natural Gas Daily Spot Prices



Source: Derived from *Platts* data.

Updated May 6, 2011

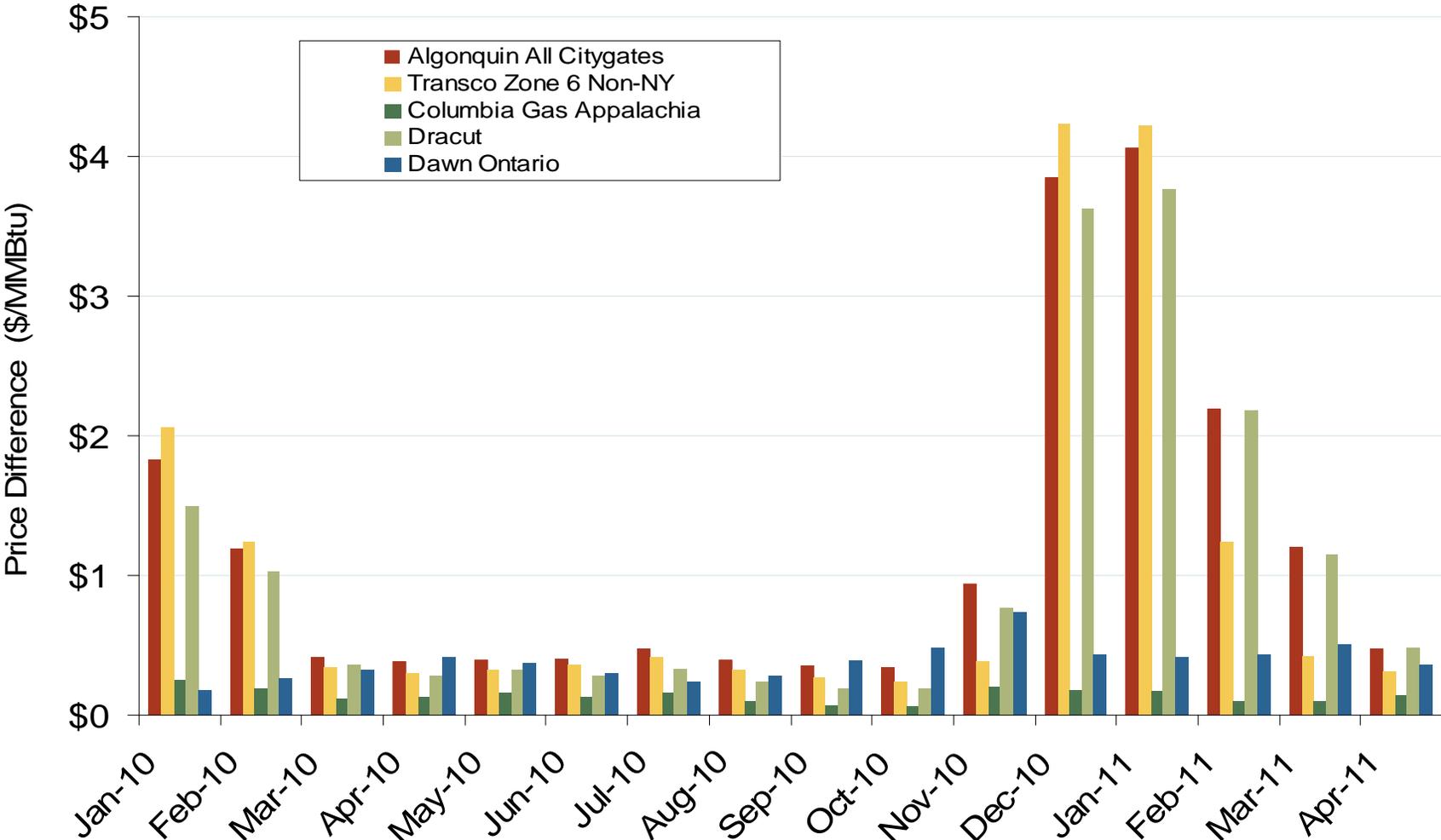
Northeastern Spot Prices and Basis



Source: Derived from *Platts* data.

Updated May 6, 2011

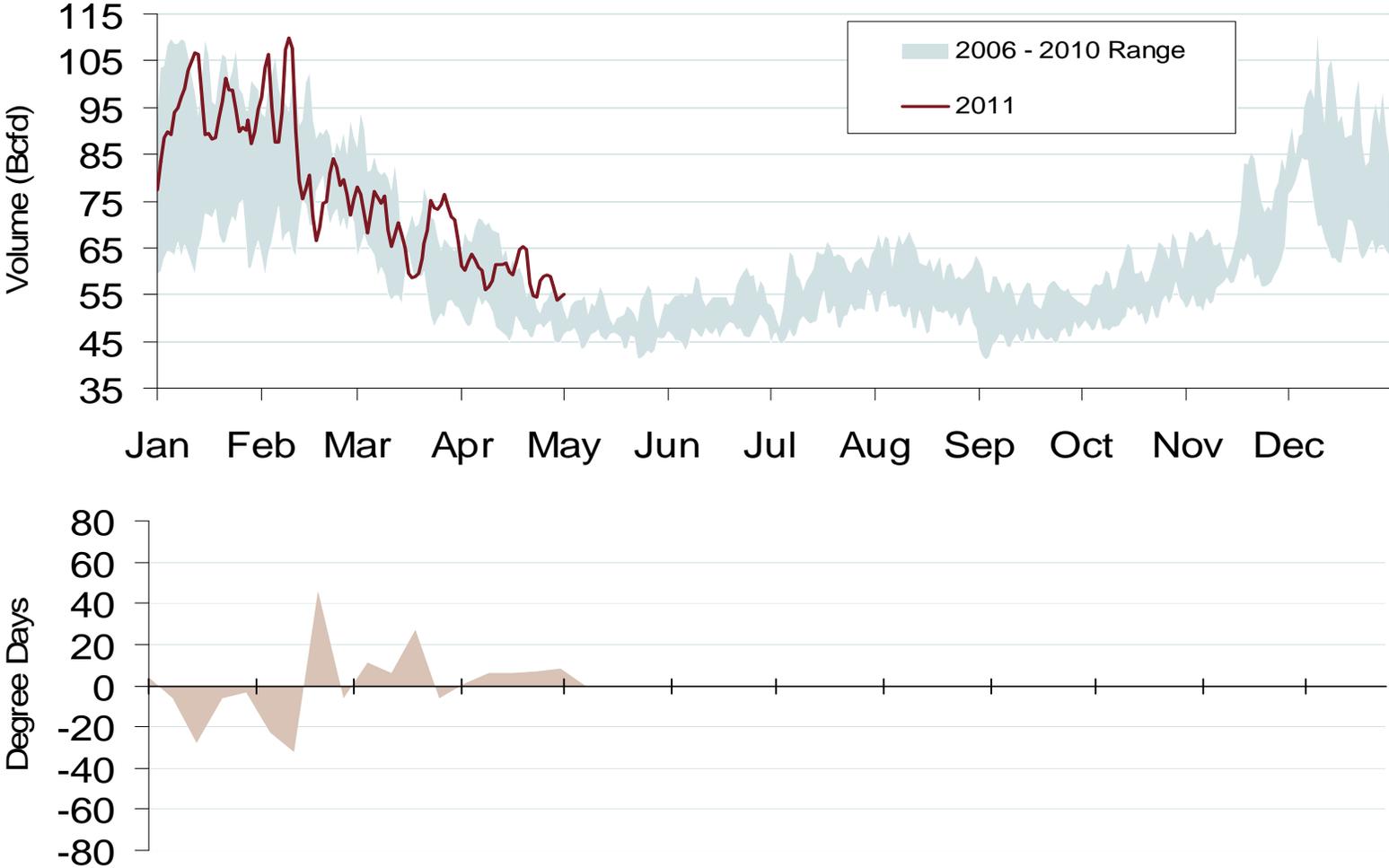
Northeastern Monthly Average Basis Value to Henry Hub



Source: Derived from Platts data.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

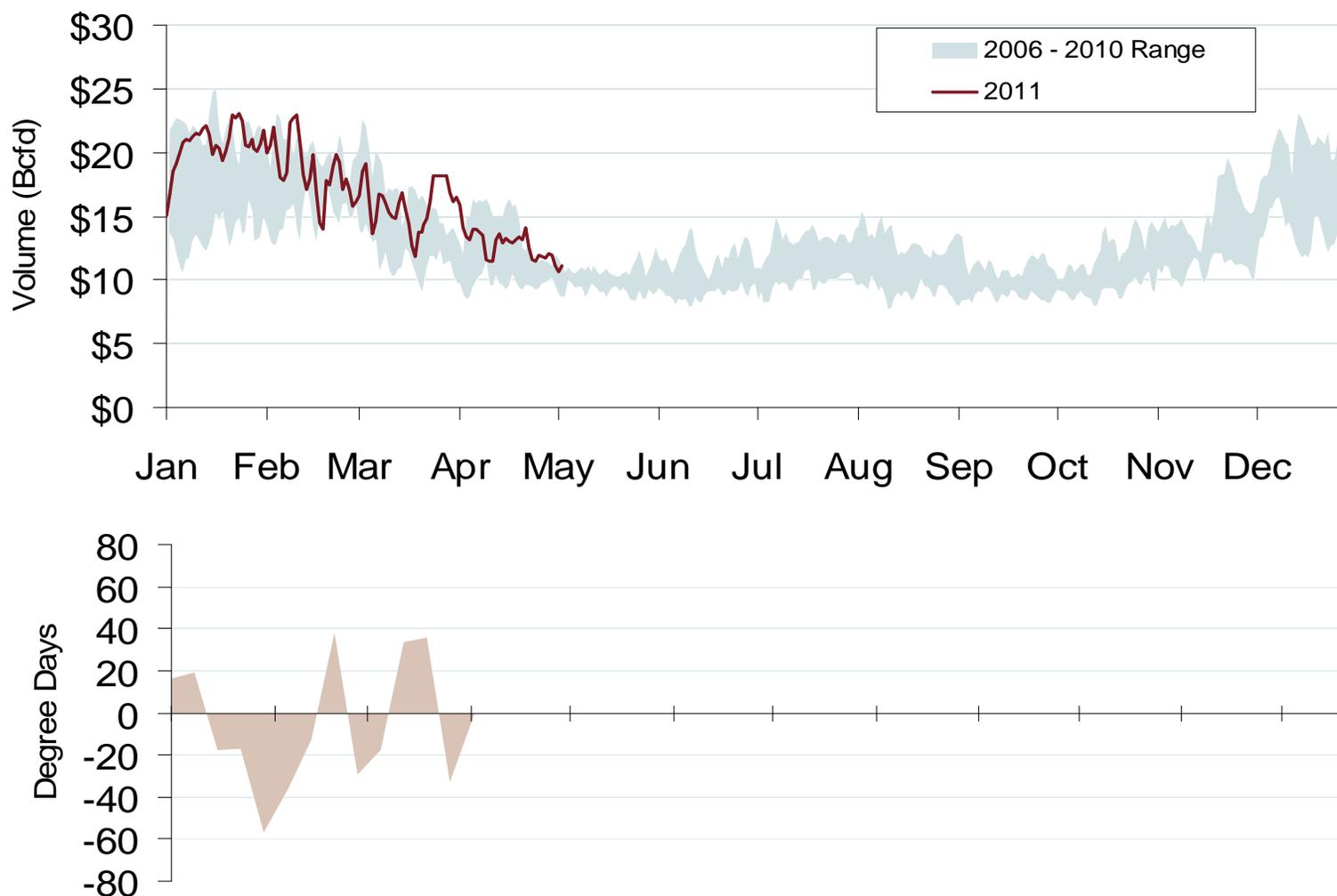
Total U.S. Natural Gas Demand (All Sectors) and Temperatures



Source: Derived from *Bentek Energy* and *Weekly NOAA* data.

Updated May 6, 2011

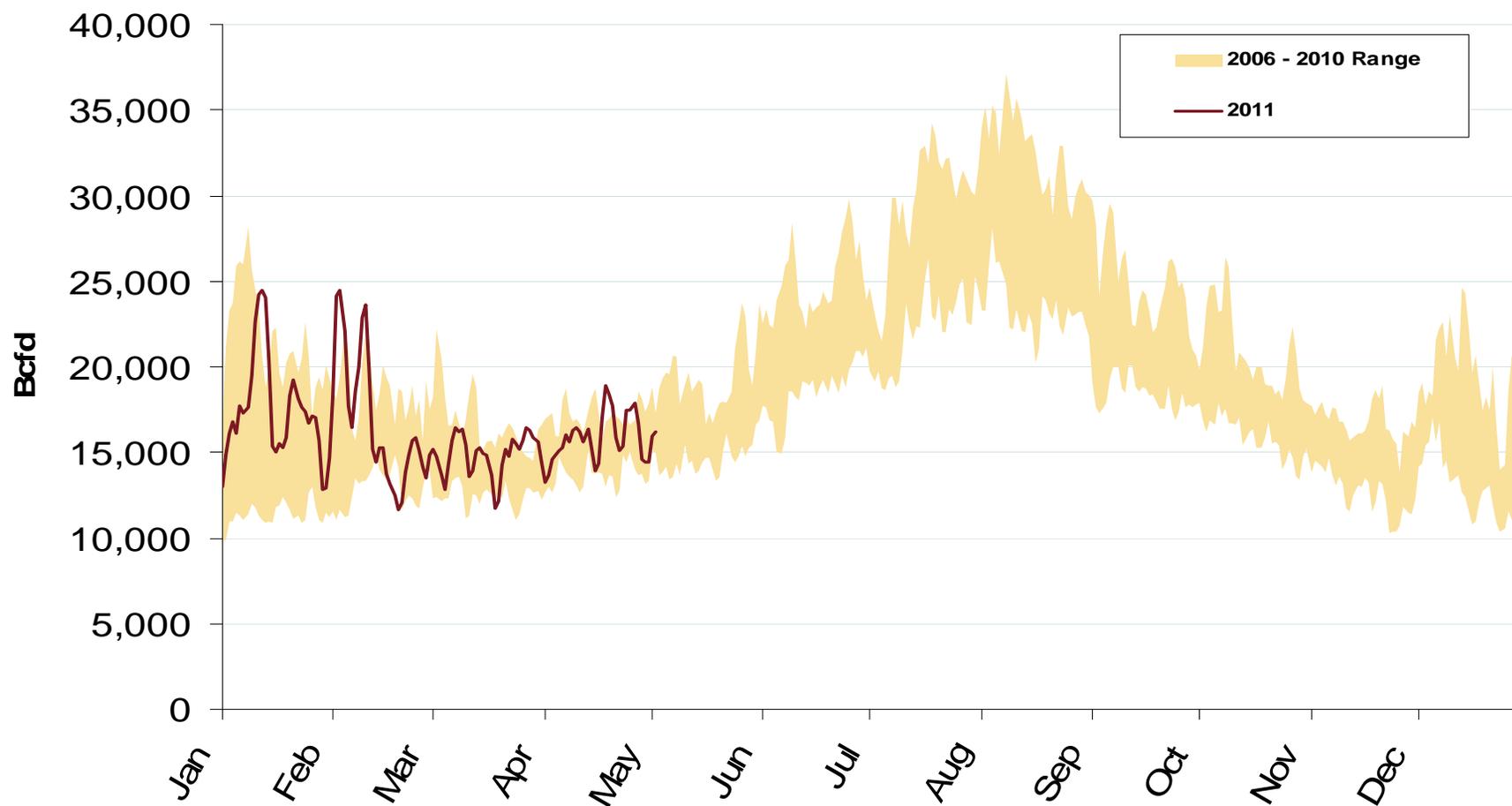
Daily Northeast Natural Gas Demand All Sectors



Source: Derived from *Bentek Energy* and *Weekly NOAA* data.

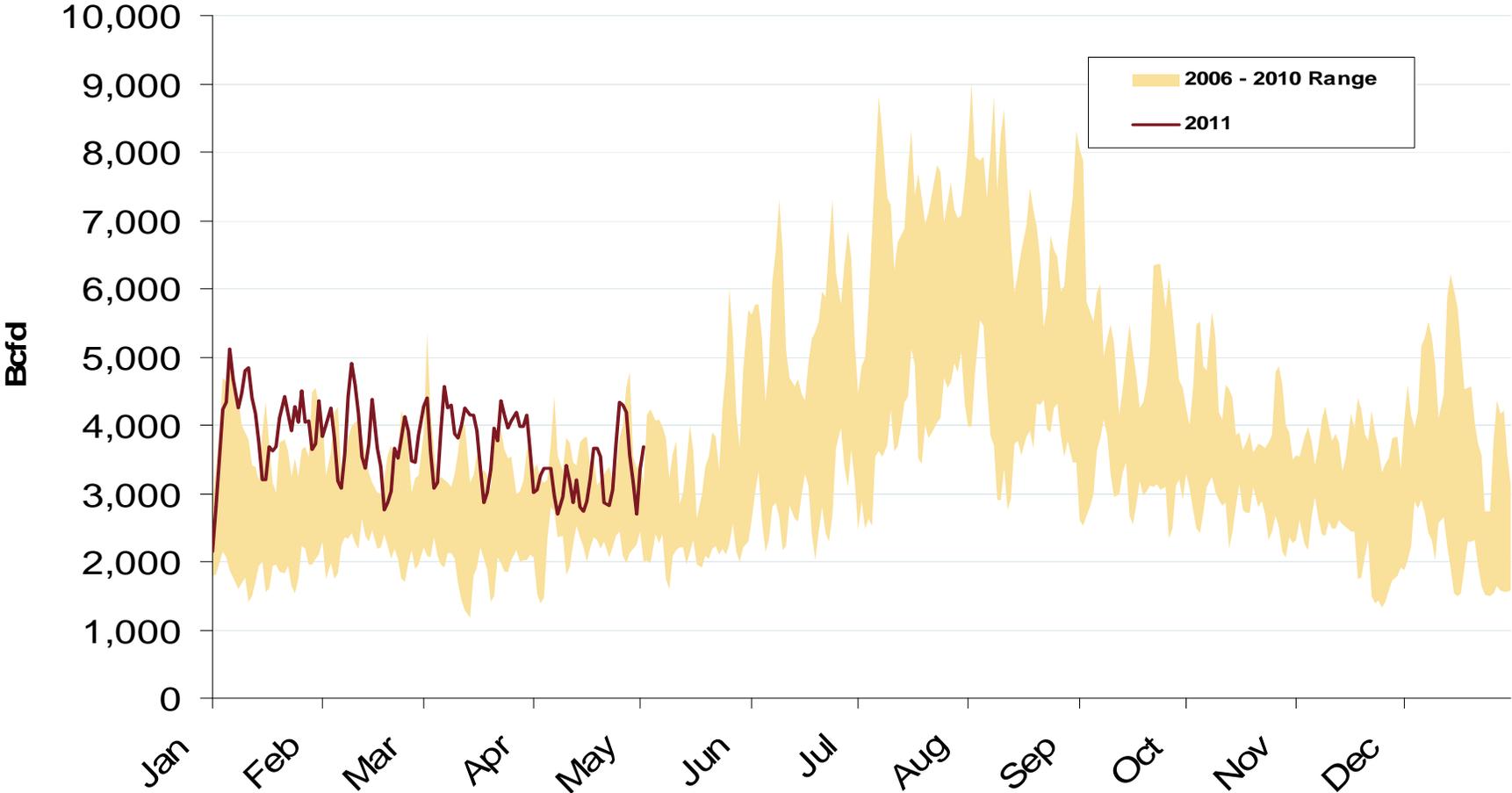
Updated May 6, 2011

U.S. Natural Gas Consumption for Power Generation



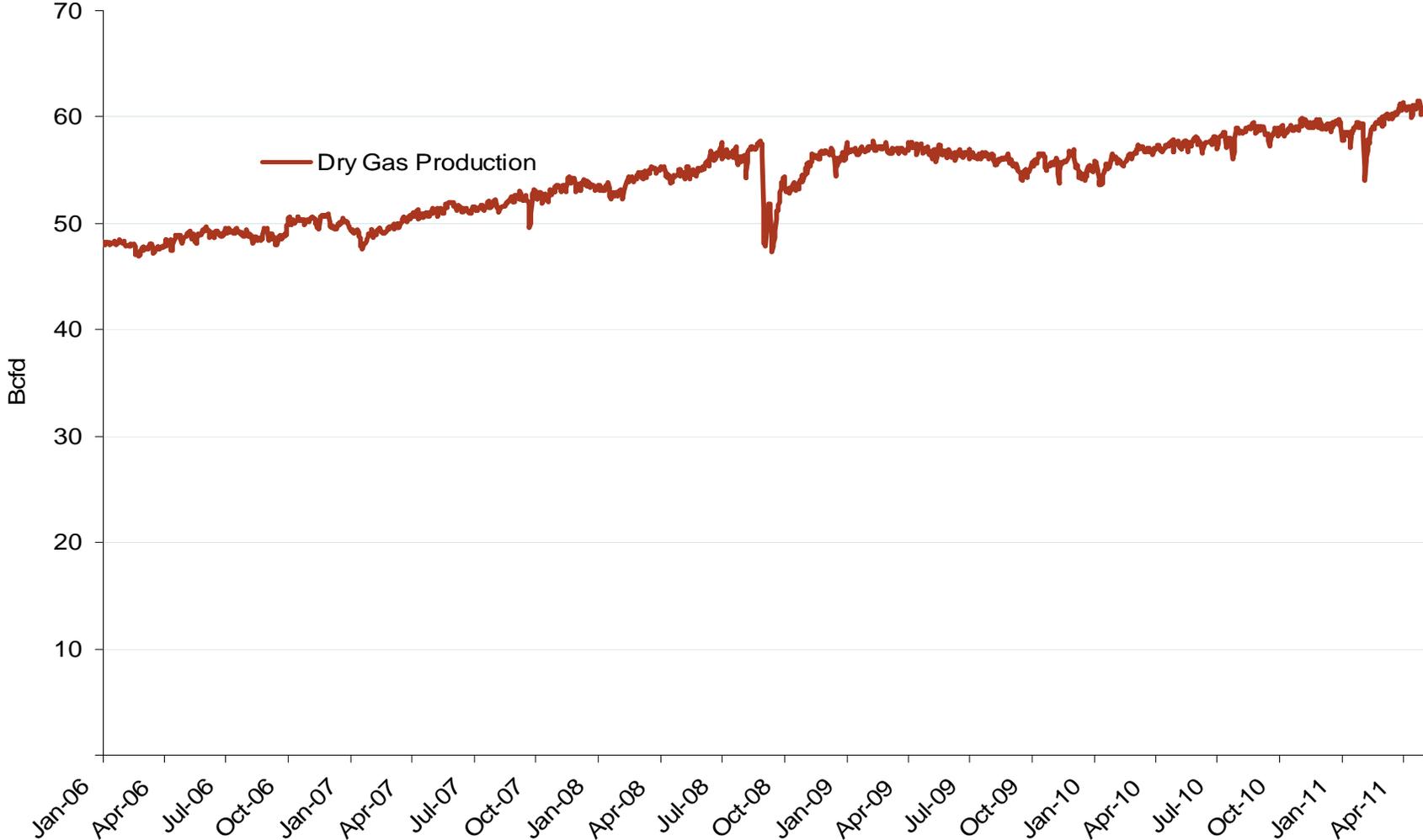
Source: Derived from *Bentek Energy* data.

Northeast Natural Gas Consumption for Power Generation



Source: Derived from *Bentek Energy* data.

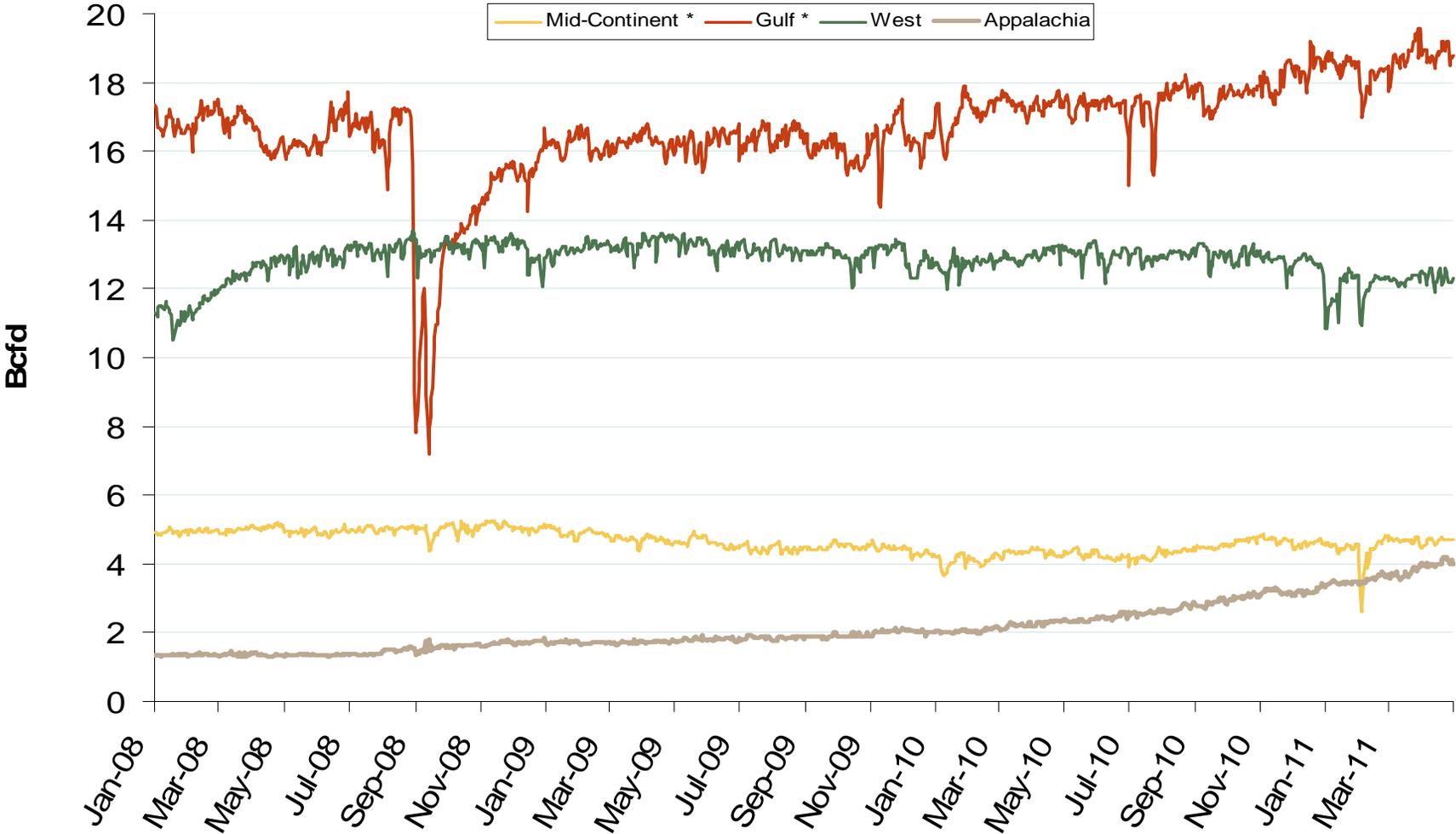
U.S. Dry Gas Production



Source: Derived from *EIA and Bentek data*.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

Regional Natural Gas Production



Source: Derived from Bentek data.

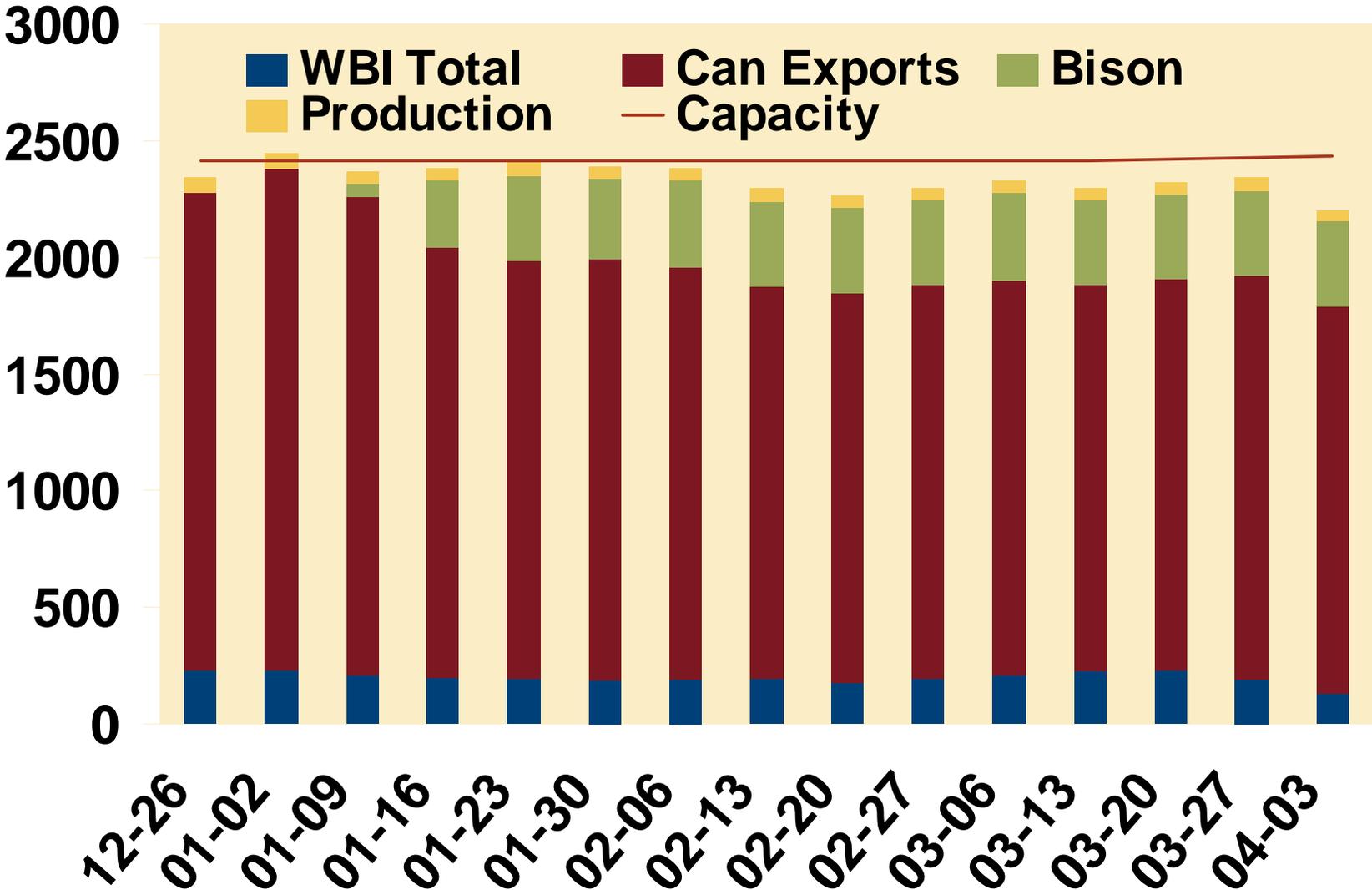
* On July 1, 2009 Bentek redefined its regions, moving some of the southern Midcontinent production to the Southeast, which is included in Gulf series.

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Uncompleted Wells by Shale Regions

<u>Shale Formation</u>	<u>Estimate of Uncompleted and Shut-in Well Count</u>	<u>Production Potential (Bcfd)</u>
Marcellus	900	3.4
Barnett	950	2.5
Eagle Ford	650	4.6
Total	2500	10.5

Bison Pipeline Displaces Canadian Gas

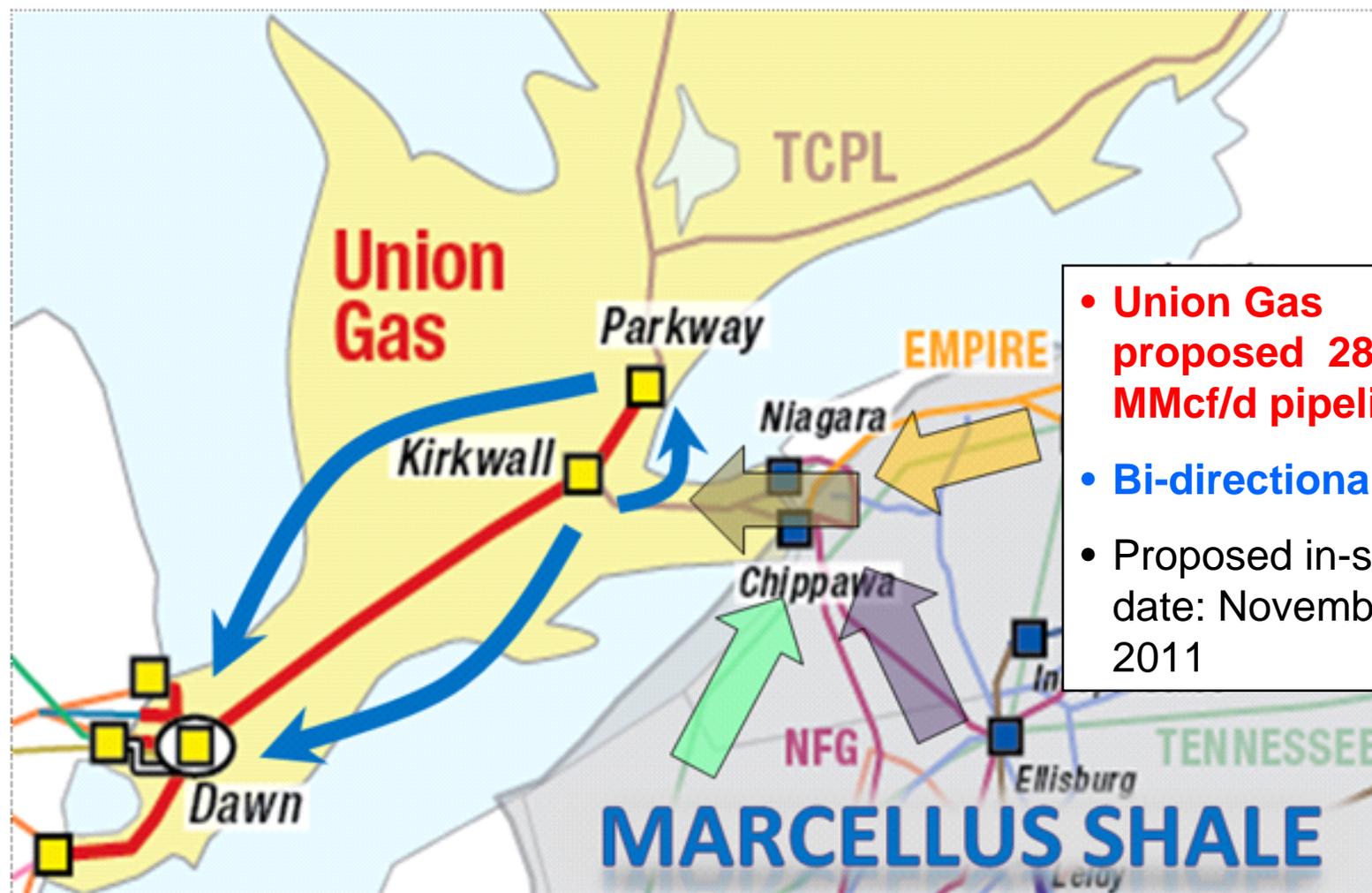


Source: Derived from Bentek Energy Data

WBI = Williston Basin Pipeline
May 2011 Mid-Atlantic Snapshot Report

Updated May 5, 2011

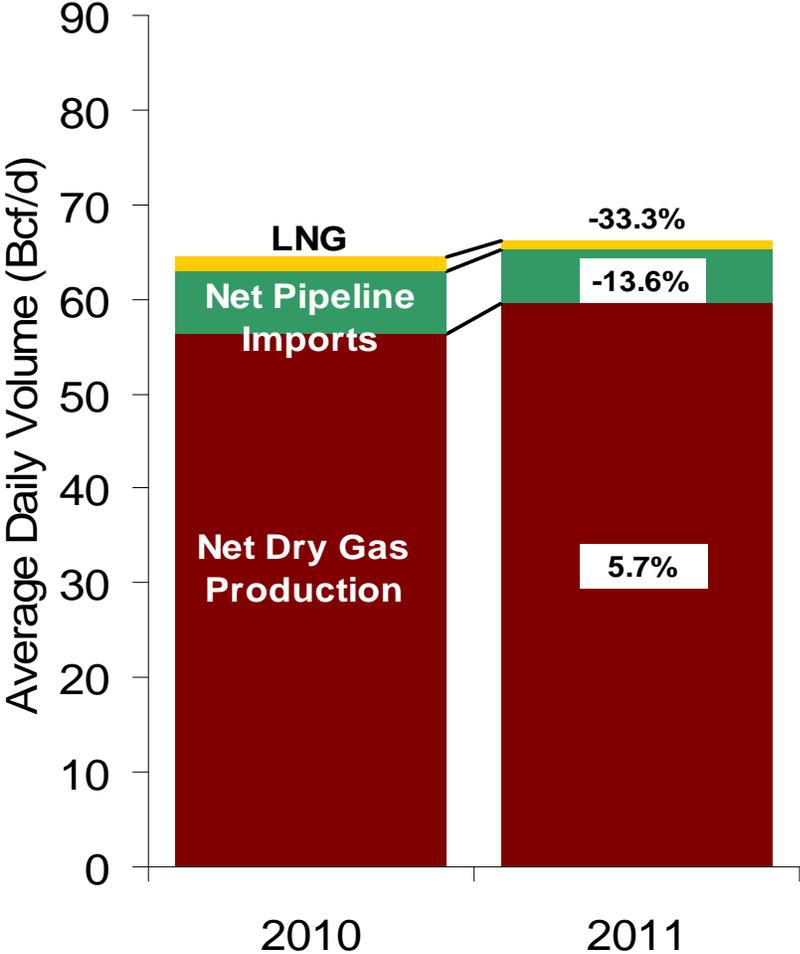
Proposed Pipeline Could Revive Trading at Dawn



U.S. Natural Gas Supply and Demand 2010 vs. 2011: January - April

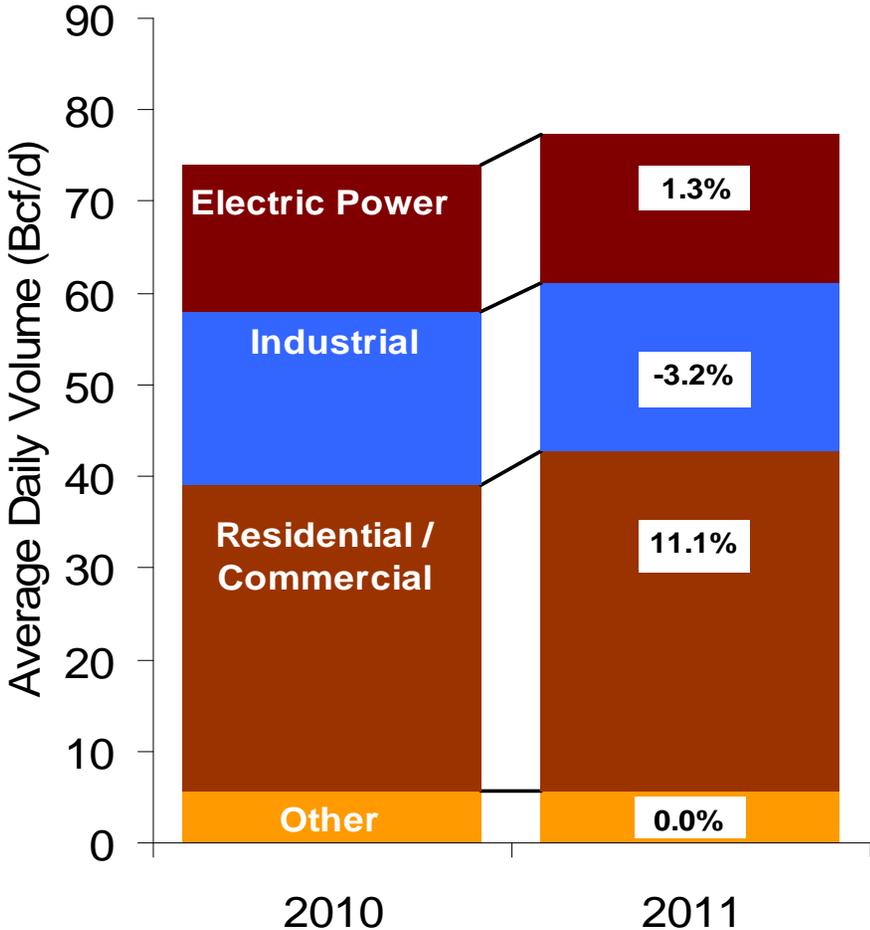
US Natural Gas Supply

Total Change in Supply 3.4%



US Natural Gas Demand

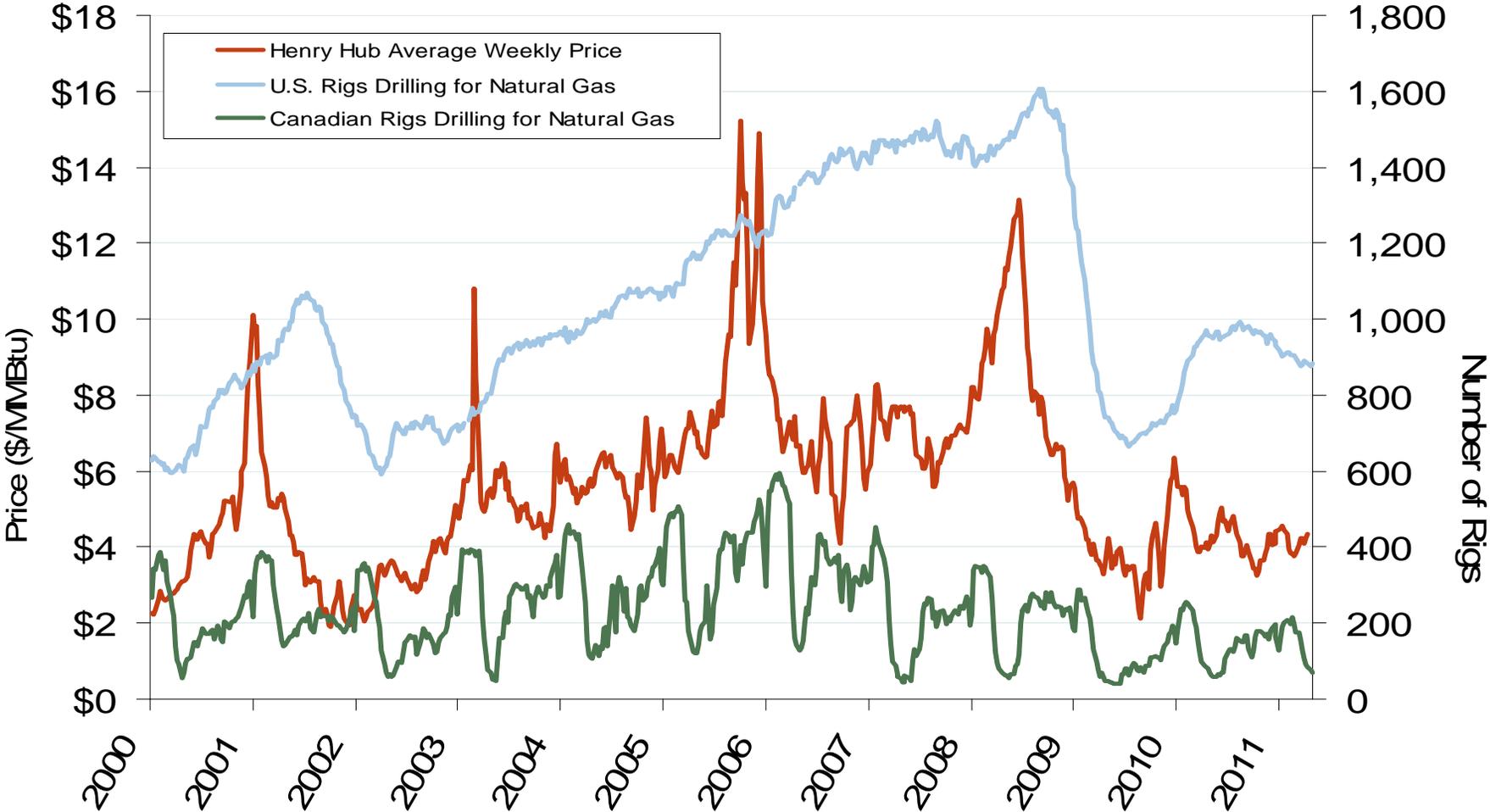
Total Change in Demand 4.7%



Source: Derived from Bentek data.
May 2011 Mid-Atlantic Snapshot Report

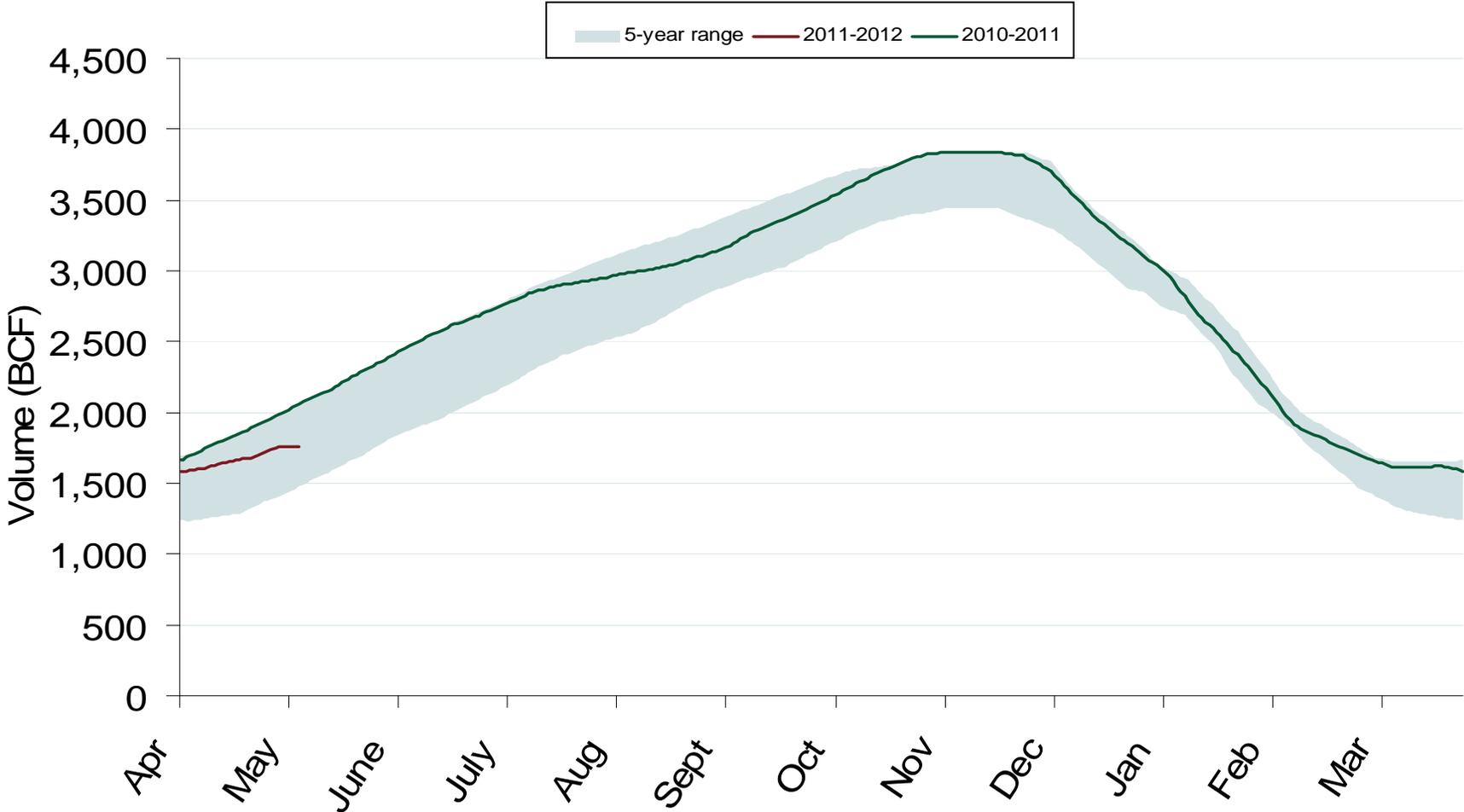
Updated May 6, 2011

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



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

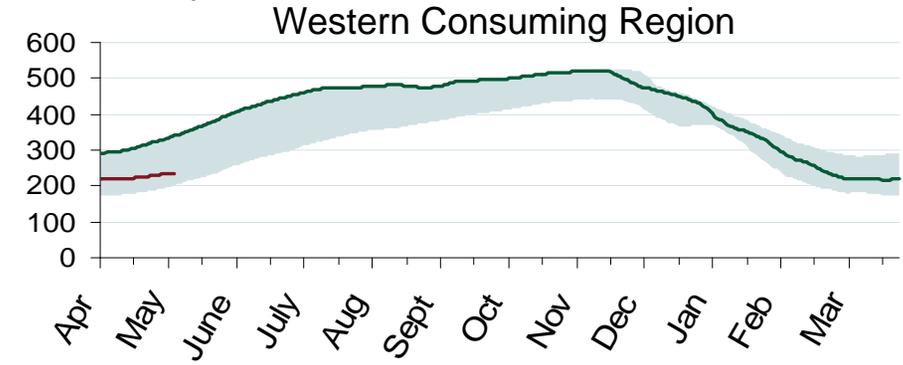
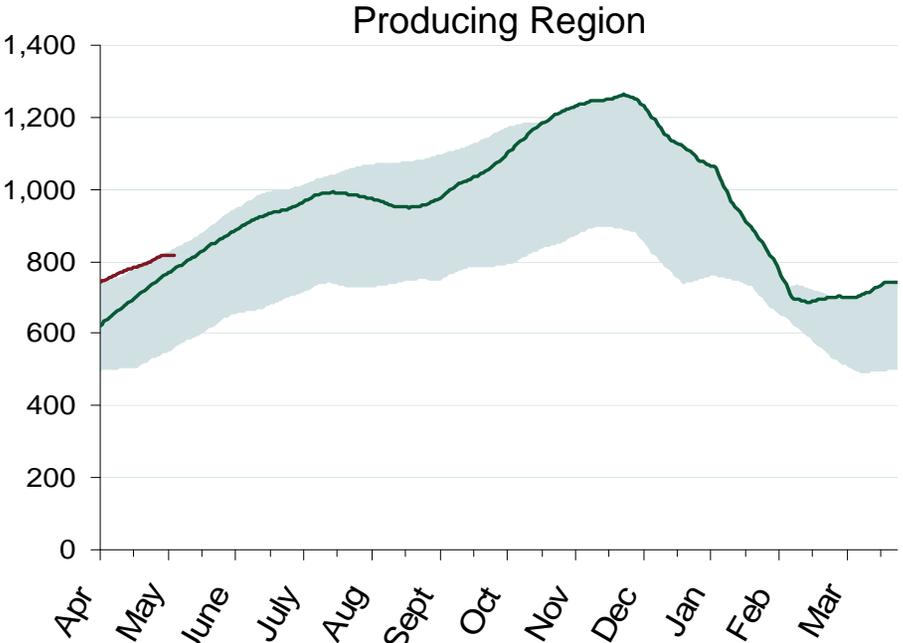
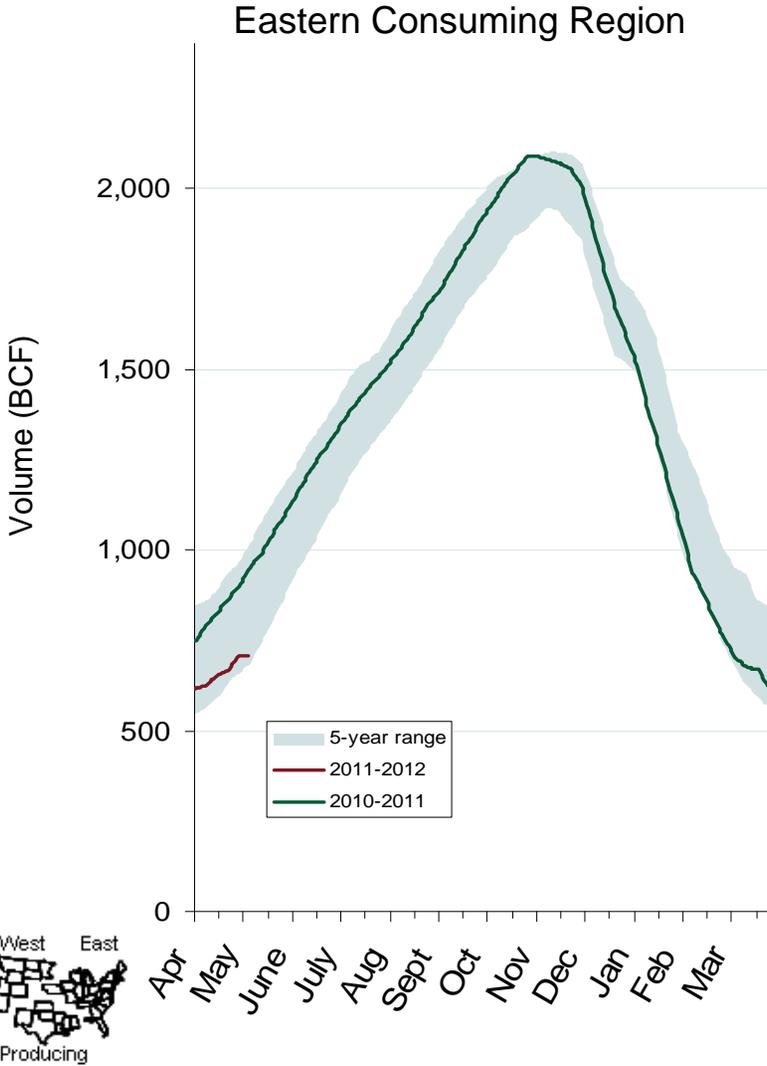
Total U.S. Working Gas in Storage



Source: Derived from EIA data.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

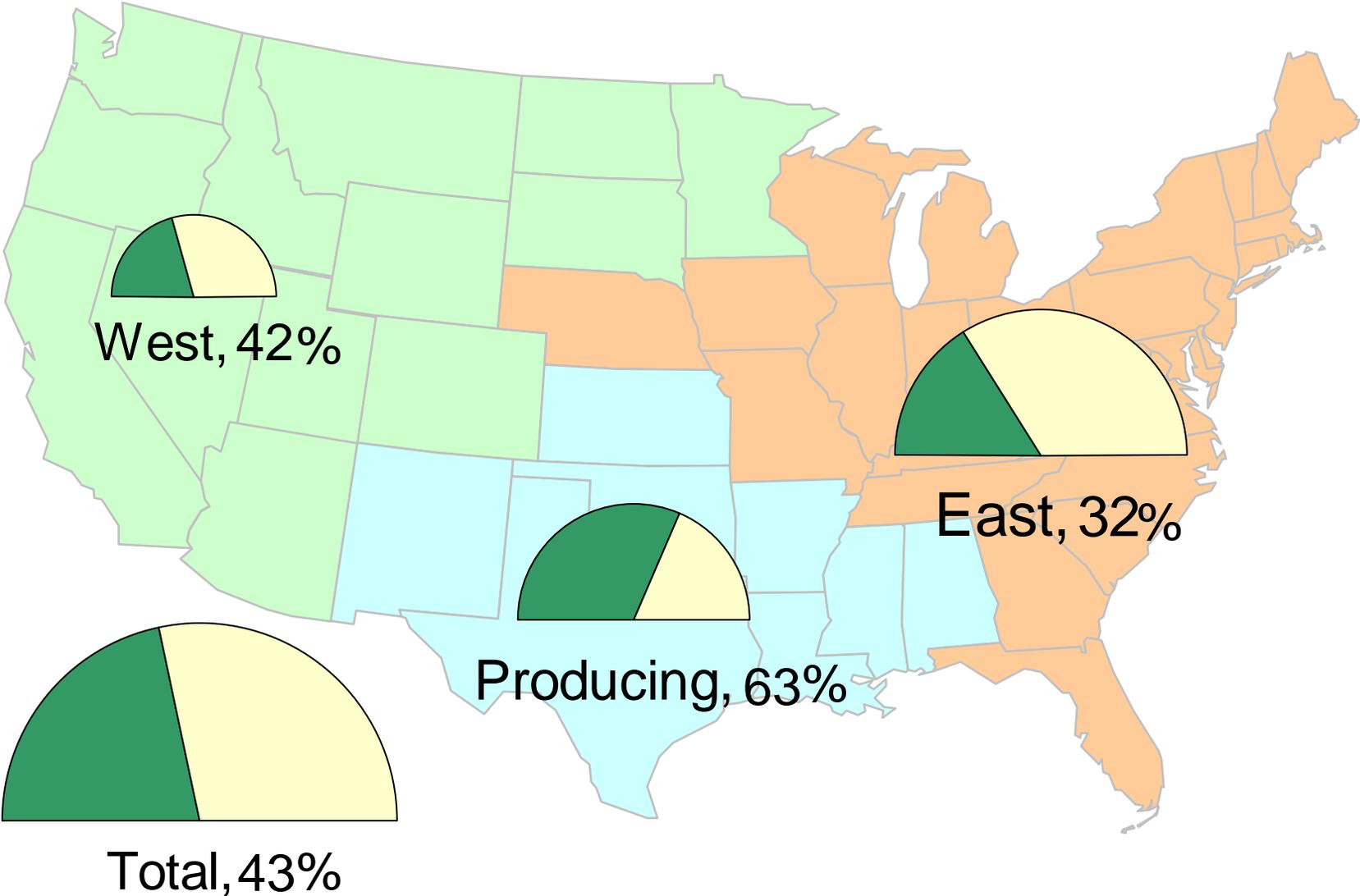
Regional Totals of Working Gas in Storage



Source: Derived from EIA data.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

Natural Gas Storage Inventories – April 29, 2011



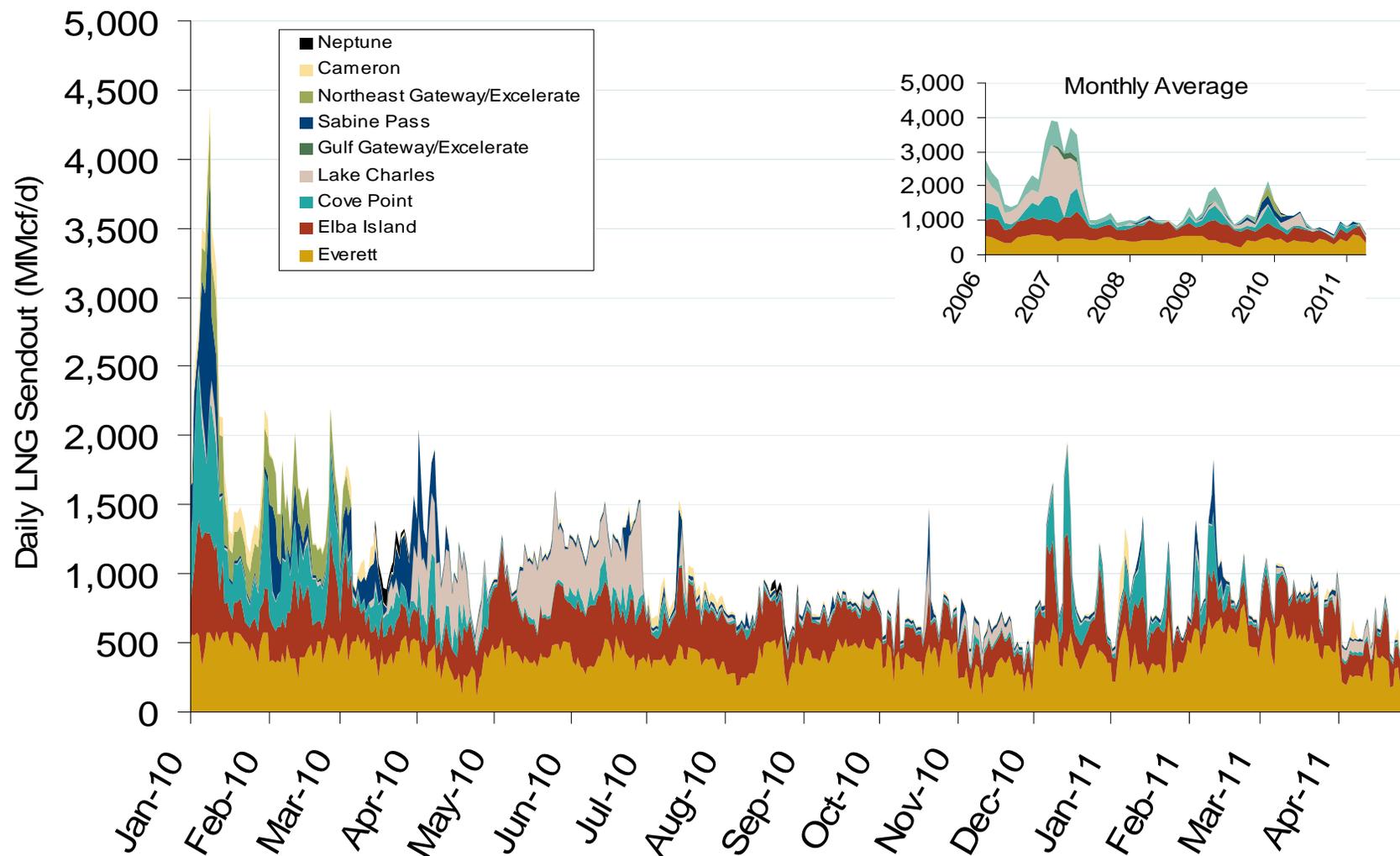
Source: Derived from *EIA Storage and Estimated Working Gas Capacity* data.
May 2011 Mid-Atlantic Snapshot Report

World LNG Estimated June 2011 Landed Prices



Source: *Waterborne Energy, Inc.* Data in \$US/MMBtu.
May 2011 Mid-Atlantic Snapshot Report

Daily Gas Sendout from Existing U.S. LNG Facilities*

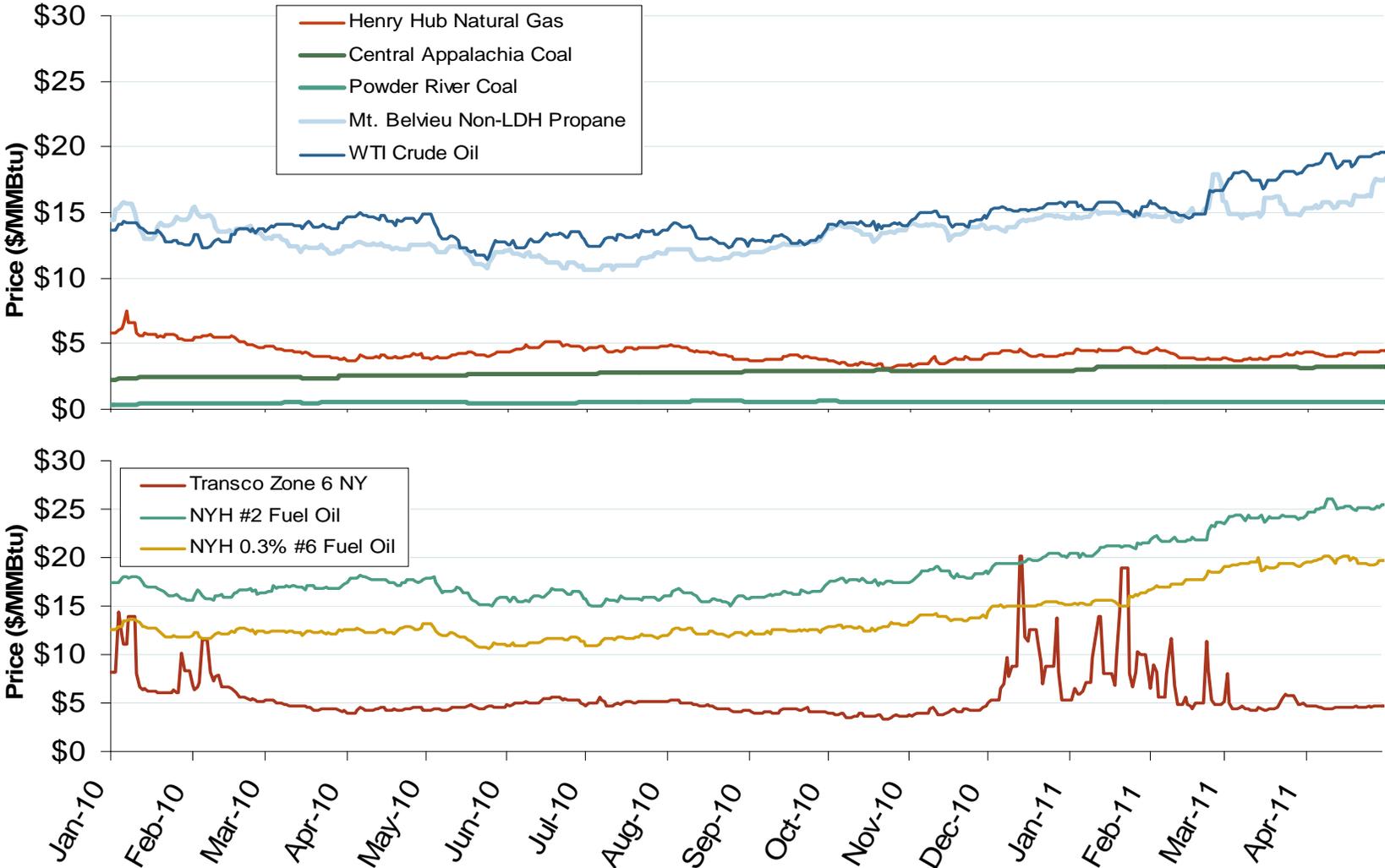


Source: Derived from *Bentek* data.

* Everett data includes flows onto the AGT and TGP interstate lines, plus estimates of flows to the Mystic 7 power plant, Keyspan Boston Gas, and LNG trucked out of the terminal. Excludes Freeport LNG which flows via intrastate pipelines.

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Oil, Coal, Natural Gas and Propane Daily Spot Prices

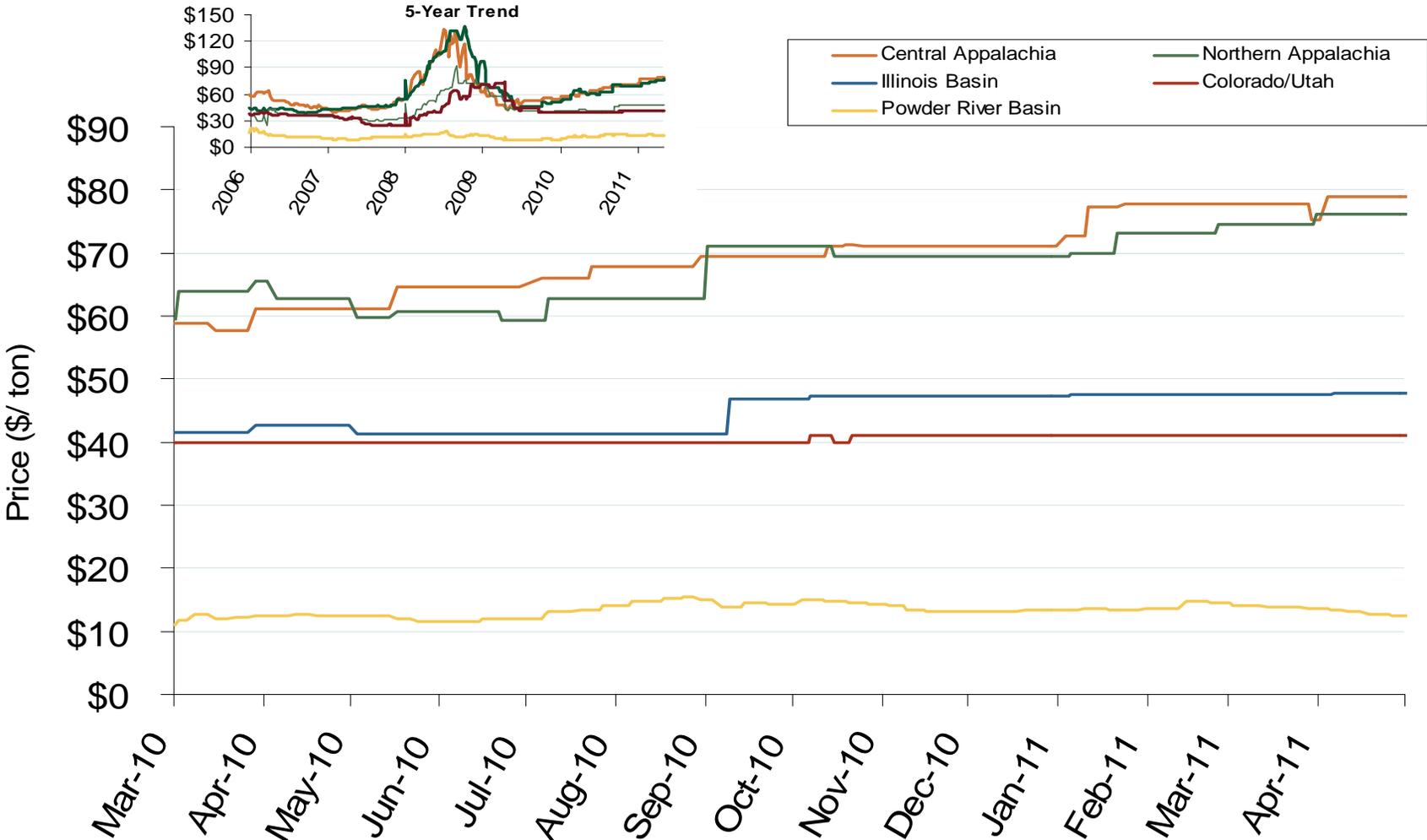


Source: Derived from ICE and Bloomberg data.

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 May 6, 2011

Regional Coal Spot Prices

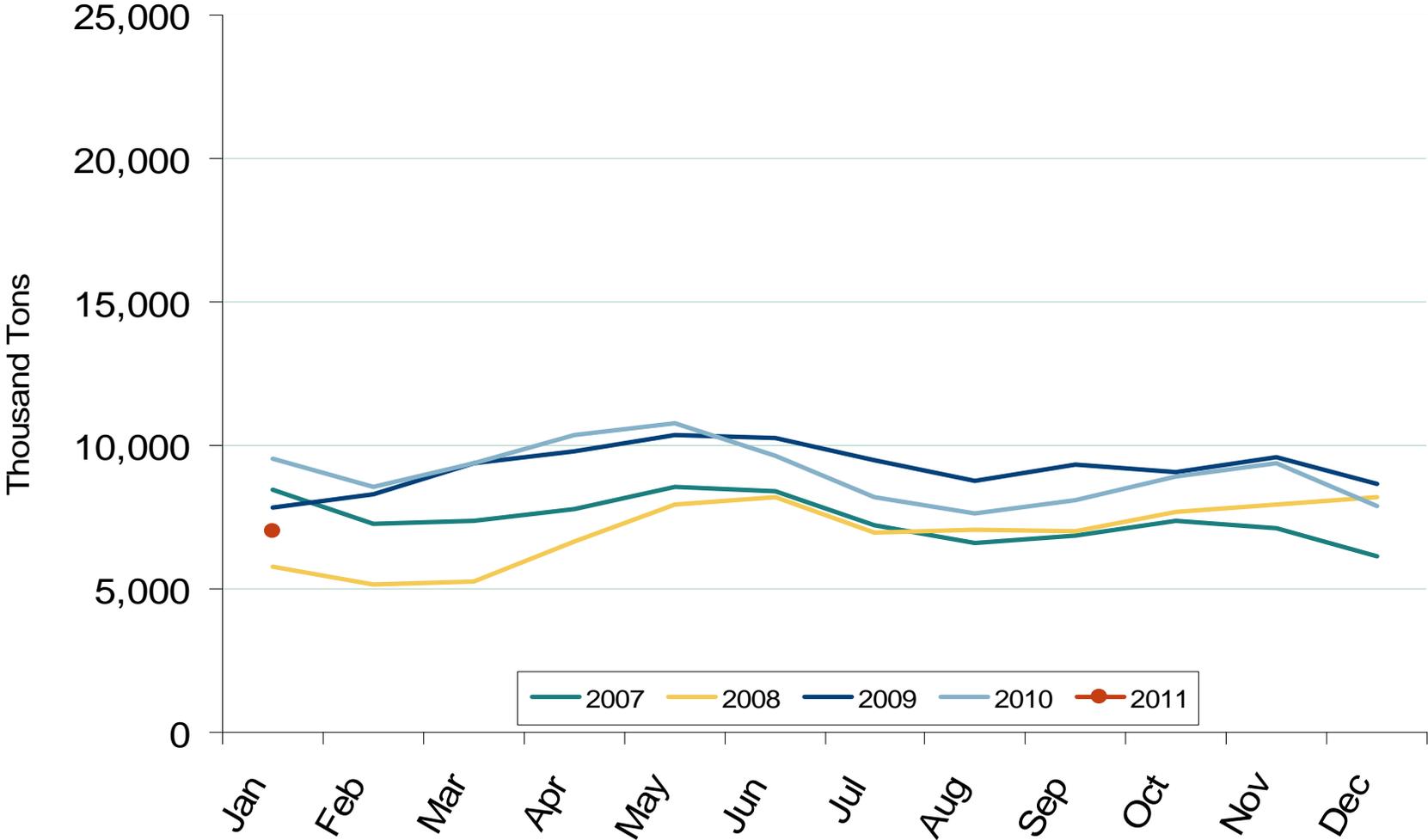


Note: the Central Appalachian (CAPP) coal is priced at Big Sandy. All others are mine mouth prices. Prices do not include transportation costs to a plant, as those can vary widely by contract specifications. Prices exclude incremental cost of emissions allowances.

Source: Derived from *Bloomberg* data.
May 2011 Mid-Atlantic Snapshot Report

Updated May 6, 2011

Northeast Coal Stockpiles at Electric Power Generating Facilities



Source: Derived from *Energy Information Administration*. Excludes Industrial and Commercial Plants.