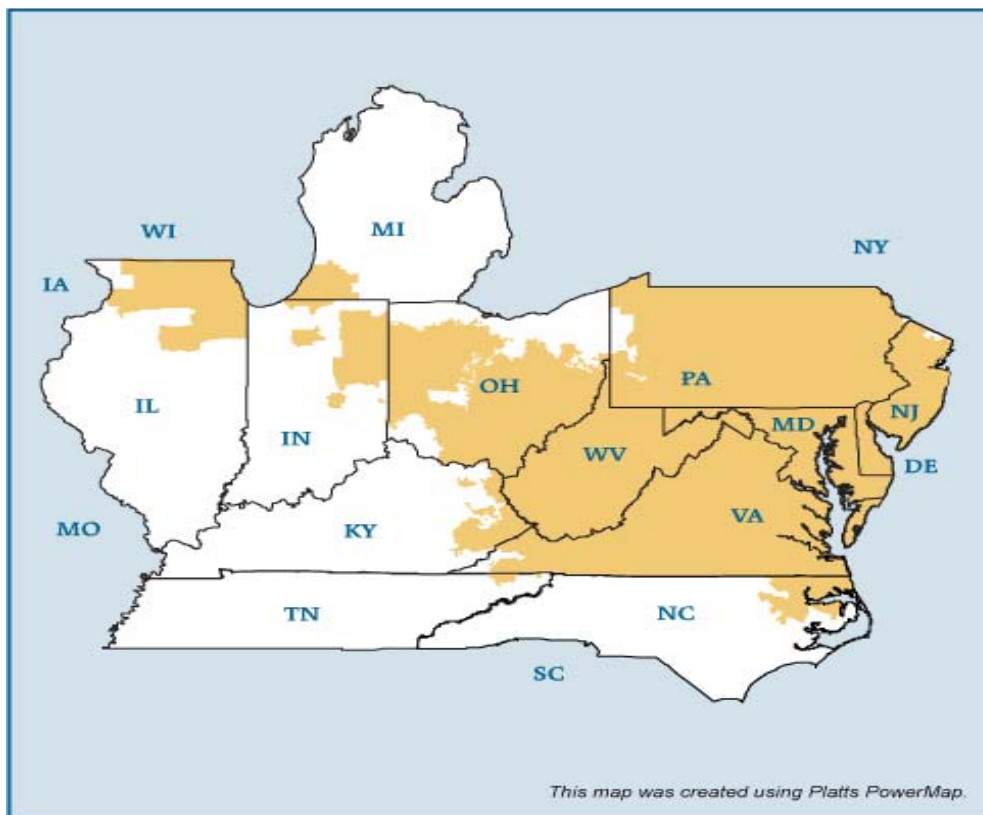


PJM Electric Market



Overview

Market Description: PJM Interconnection (PJM)

Geography

States covered: All or most of Pennsylvania, New Jersey, Maryland, Delaware, District of Columbia, Virginia, West Virginia and Ohio. Parts of Illinois, Michigan, Indiana, Kentucky, North Carolina and Tennessee.

Reliability region: Reliability *First* Corporation (RFC) and SERC Reliability Corporation (SERC)

Balancing authority: PJM

Load zones: Allegheny Power Systems (APS), American Electric Power (AEP), Atlantic Electric Power Company, Inc. (AECO), Baltimore Gas and Electric Company (BGE), ComEd, Dayton Power and Light Company (DAY), Delmarva Power and Light Company (DPL), Dominion (DOM), Duquesne Light (DUQ), Jersey Central Power and Light Company (JCPL), Metropolitan Edison Company (METED), PPL Electric Utilities (PPL), PECO Energy (PECO), Pennsylvania Electric Company (PENELEC), Potomac Electric Power Company (PEPCO), Public Service Electric and Gas Company (PSEG), and Rockland Electric Company (RECO).

Hubs: AEP GEN, AEP-Dayton, Chicago GEN, Chicago, Dominion, Eastern, N. Illinois, New Jersey, Ohio, West INT, Western.

PJM Electric Market: Overview and Focal Points

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

RTO/ISO

PJM Interconnection (PJM) operates the region's power grid and wholesale electric markets:

- Energy market: two-settlement (day ahead and real-time) spot market with locational marginal pricing (prices are calculated at each bus every five minutes),
- Capacity market,
- Ancillary services markets, and
- Financial transmission rights (FTR) market.

Energy and capacity in the region are also traded bilaterally through brokers and the Intercontinental Exchange (ICE).

[PJM 2008 State of the Markets Report \(and links to prior annual reports\)](#)

Market Monitoring Unit: Monitoring Analytics, LLC – External Market Monitor

Generation/Supply

Marginal fuel type: Coal and natural gas

Generating capacity (summer 2008): 164,179 MW

Capacity reserve (summer 2008): 34,079 MW

Reserve margin (summer 2008): 26.0%

Demand

All time peak demand: 144,644 MW (set August 2, 2006)

Peak demand change (2007-2008): 3.5% Decline

Summer Peak Demand (MW): 77,887 (2004) 133,763 (2005) 144,644 (2006) 139,428 (2007) 130,100 (2008)

(Source: PJM)

Prices**Annual Average Day-Ahead Price****PJM Western Hub (A basket of 109 buses from Erie PA to Washington DC)****2004:** \$41.69/MWh**2005:** \$60.61/MWh**2006:** \$50.07/MWh**2007:** \$57.00/MWh**2008:** \$69.88/MWh

Supply and Demand Statistics for PJM

Supply Demand Statistics	2004	2005	2006	2007	2008
Summer Generating Capacity MW	105,600	164,024	162,458	163,659	164,179
Summer Peak Demand MW	77,887	133,763	144,644	139,428	130,100
Summer Reserves MW	27,713	30,261	17,814	24,231	34,079
Summer Reserve Margin:	36%	23%	12%	17%	26%
Annual Load (GWh):	438,874	684,592	696,165	715,524	698,458
Annual Net Generation GWh	447,957	710,435	724,925	752,097	735,244

Source: Derived from *PJM* data.

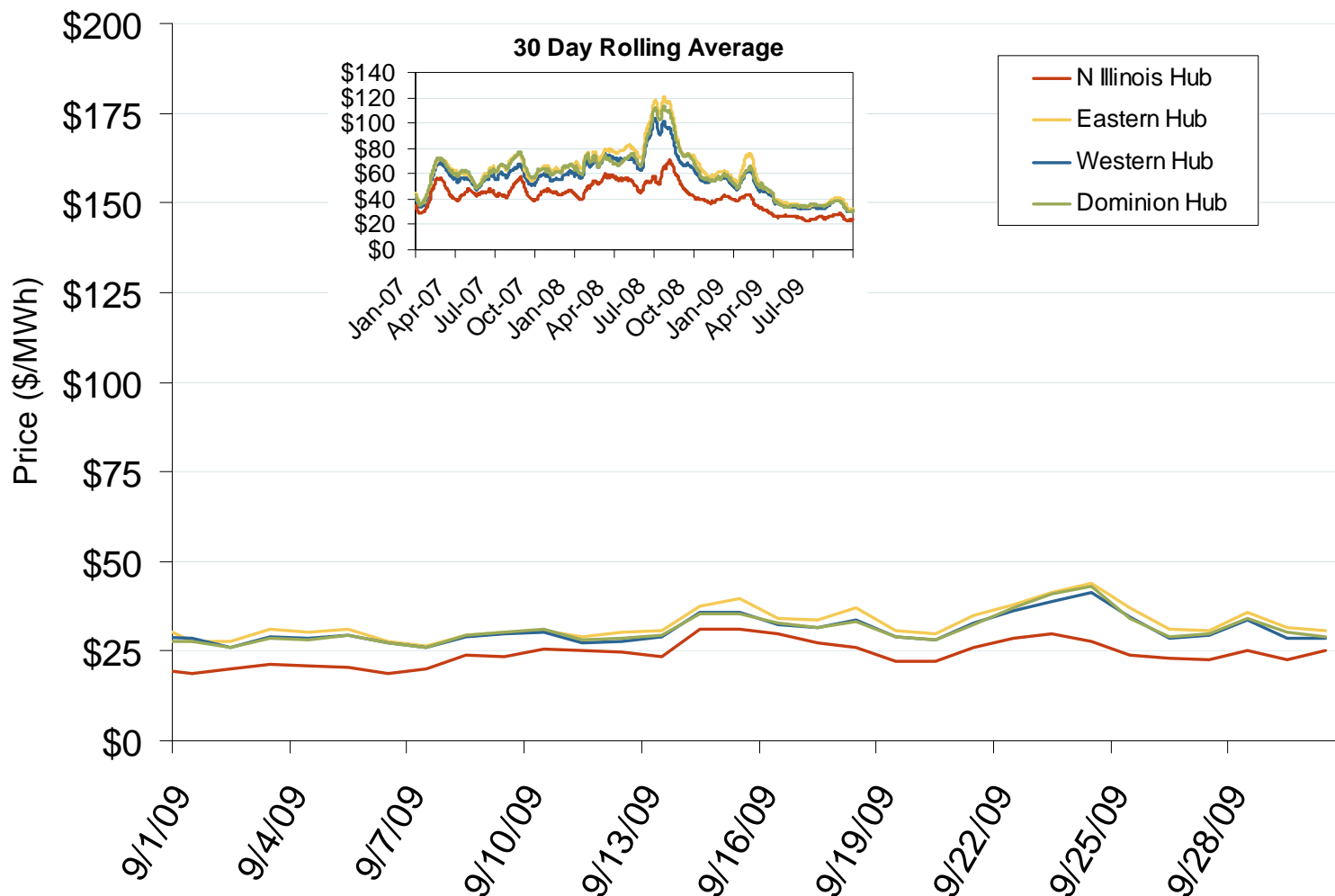
Updated May 13, 2009

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Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2004	2005	2006	2007	2008	5-Year Avg
Mass Hub	\$61.47	\$89.87	\$69.85	\$77.39	\$91.55	\$78.01
Ny Zone G	\$61.74	\$92.46	\$75.95	\$83.51	\$100.99	\$82.91
NY Zone J	\$76.67	\$110.03	\$85.96	\$94.15	\$112.63	\$95.87
NY Zone A	\$52.49	\$76.04	\$58.70	\$64.02	\$68.34	\$63.91
PJM West	\$51.10	\$76.64	\$61.90	\$71.15	\$83.70	\$68.88

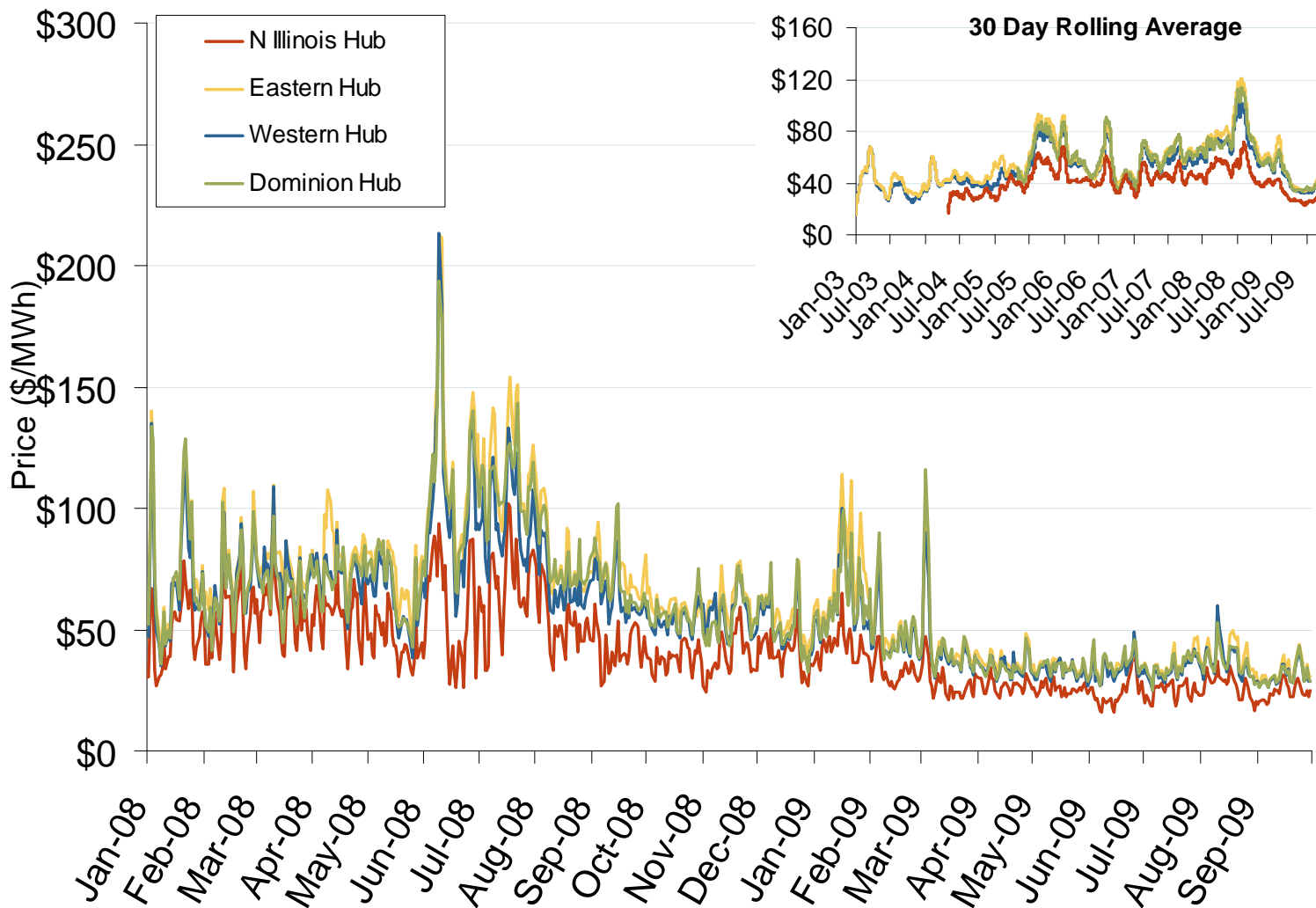
Daily Average of PJM Day-Ahead Prices - All Hours



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

Updated October 7, 2009

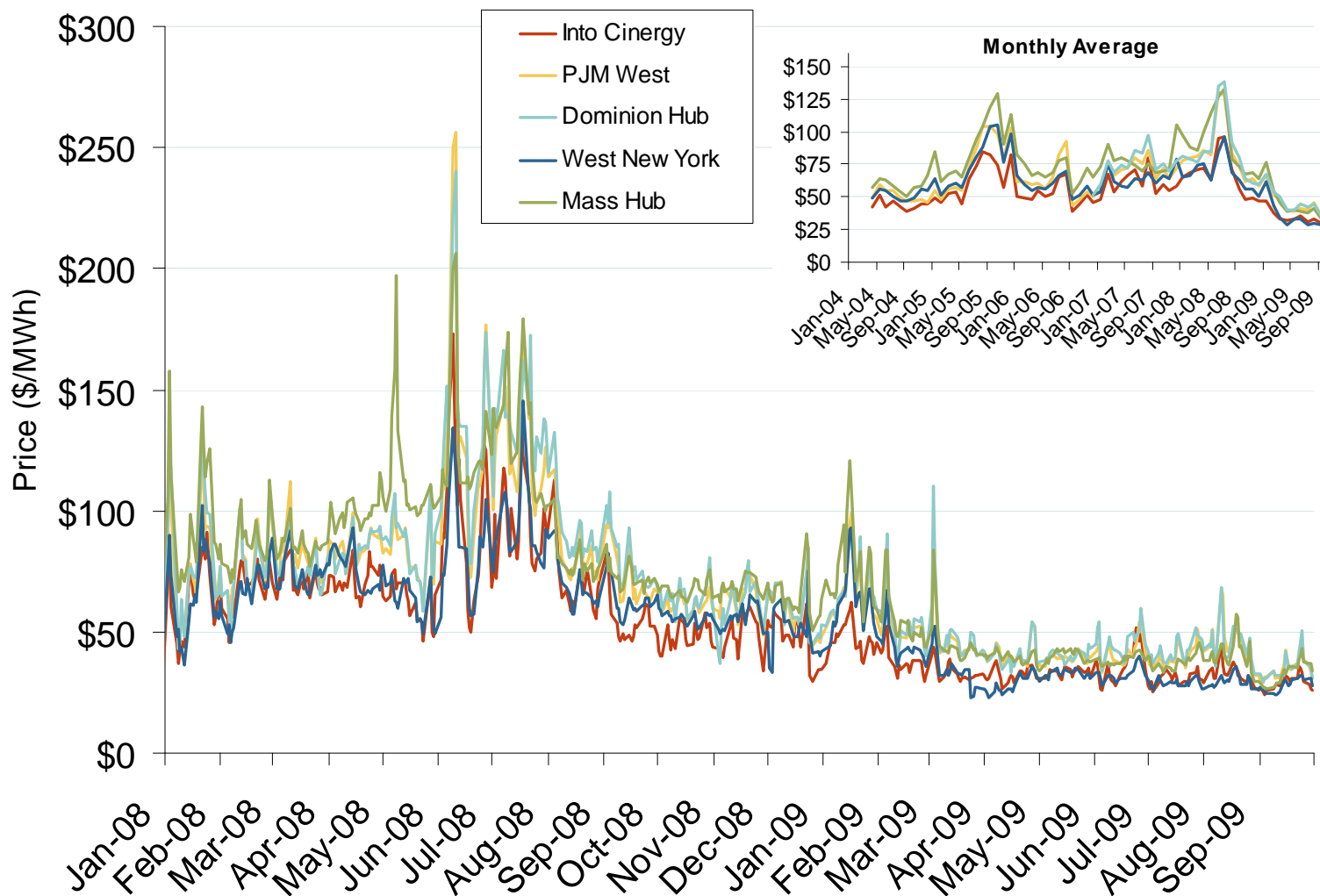
Daily Average of PJM Day-Ahead Prices - All Hours



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

Updated October 7, 2009

Eastern Daily Bilateral Day-Ahead On-Peak Prices

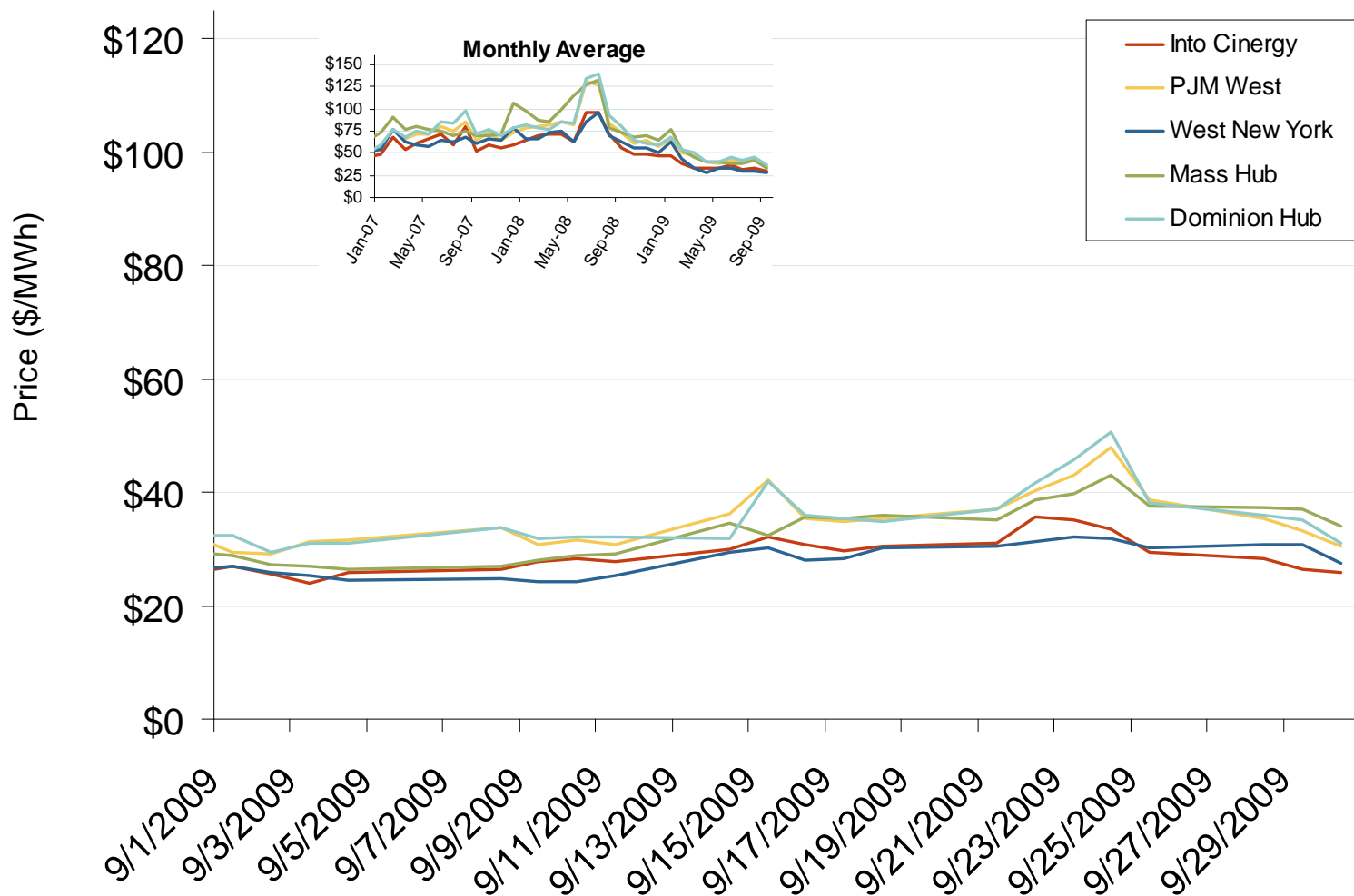


Source: Derived from *Platts* data.

Updated October 7, 2009

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Eastern Daily Bilateral Day-Ahead On-Peak Prices

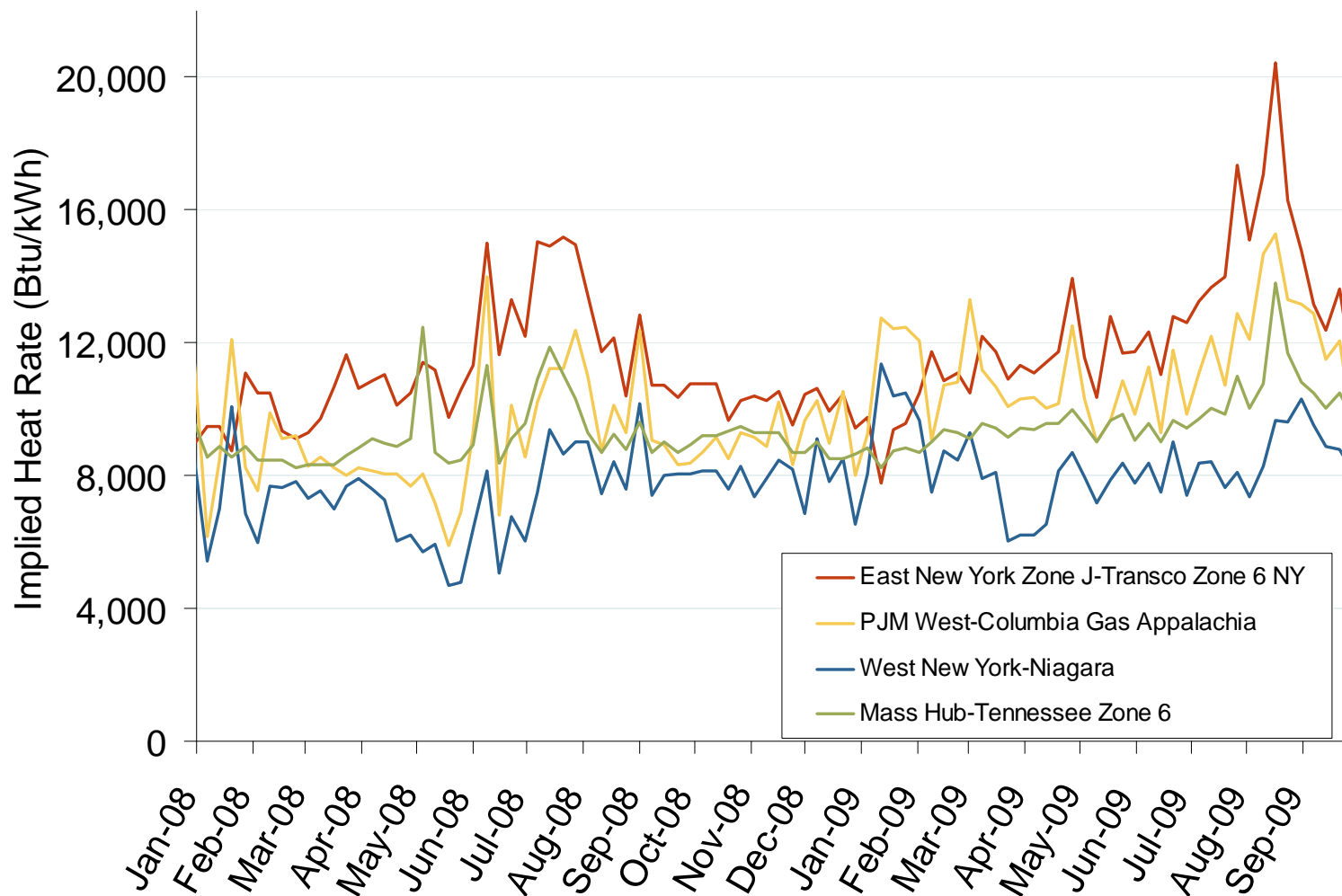


Source: Derived from *Platts* data.

Updated October 7, 2009

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Implied Heat Rates at Eastern Trading Points Weekly Averages

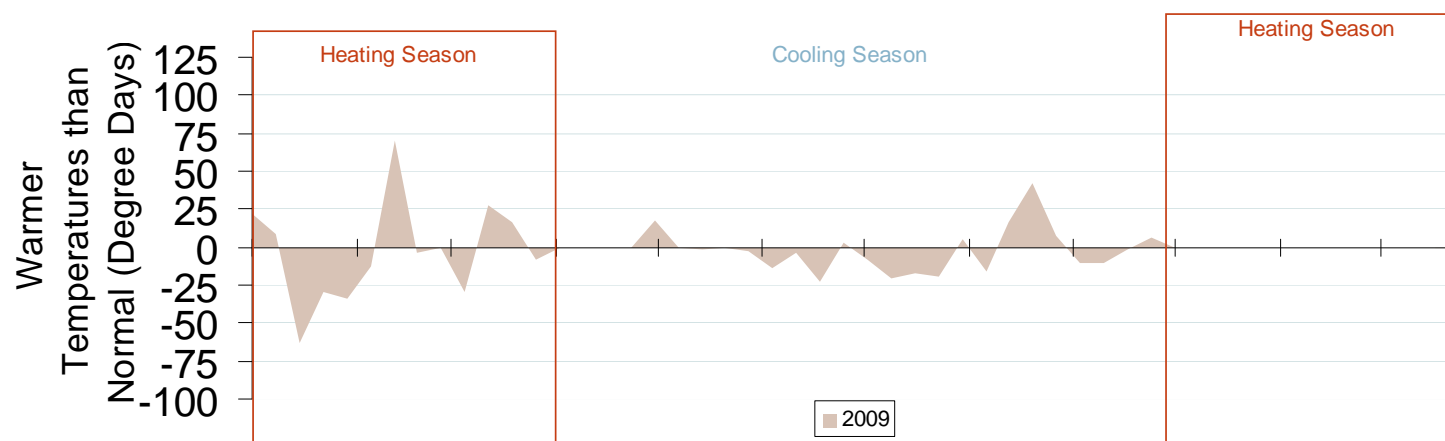
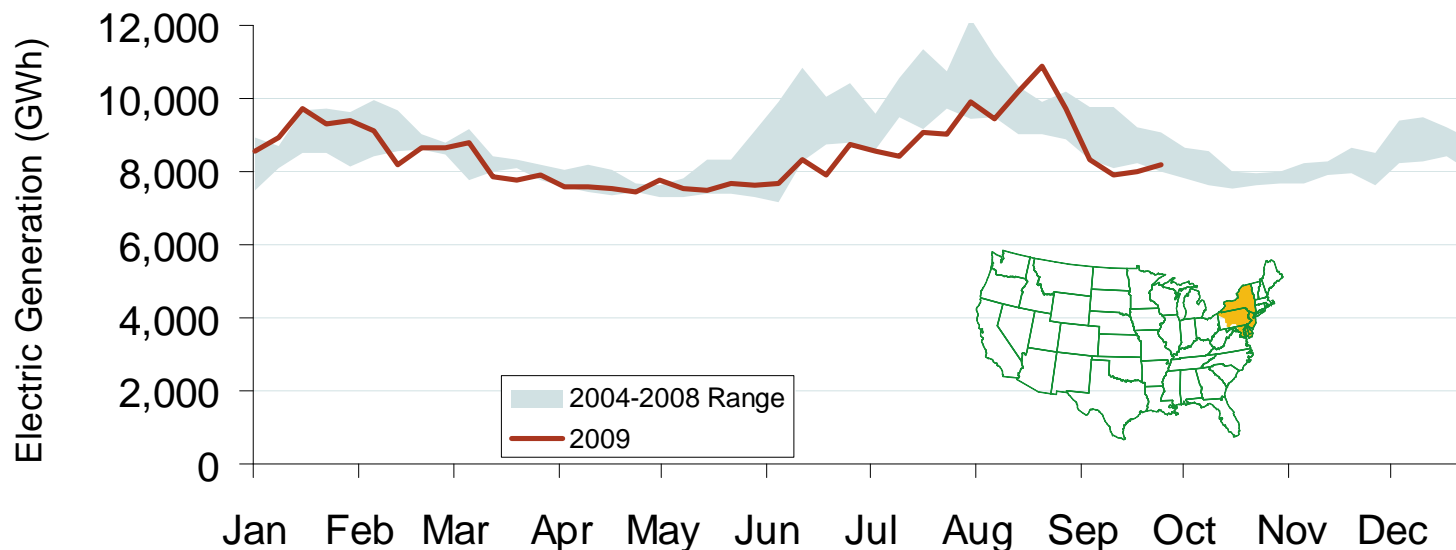


Source: Derived from *Platts* on-peak electric and natural gas price data.

Updated October 7, 2009

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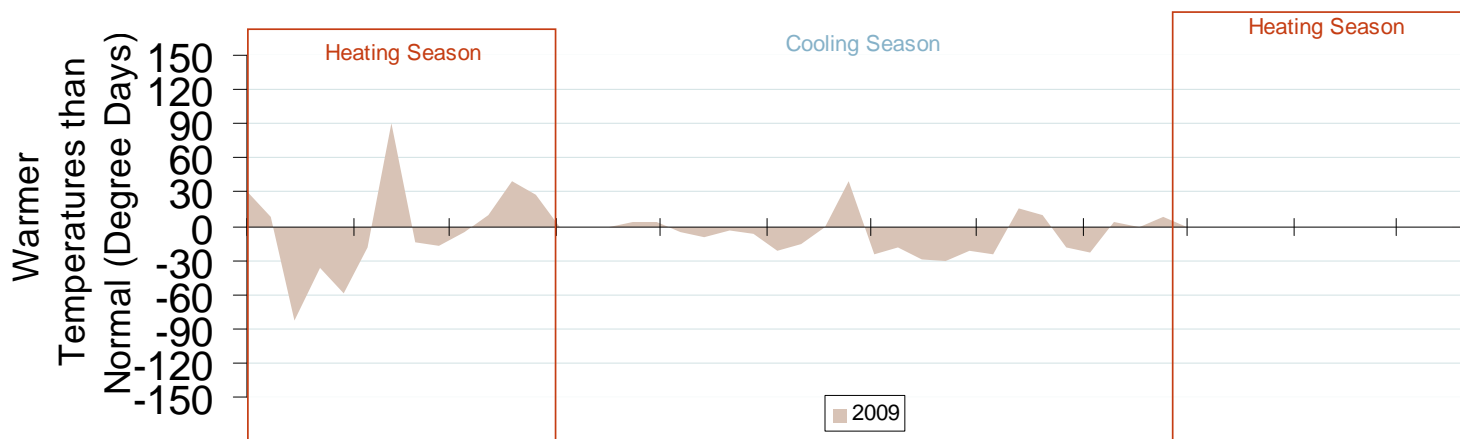
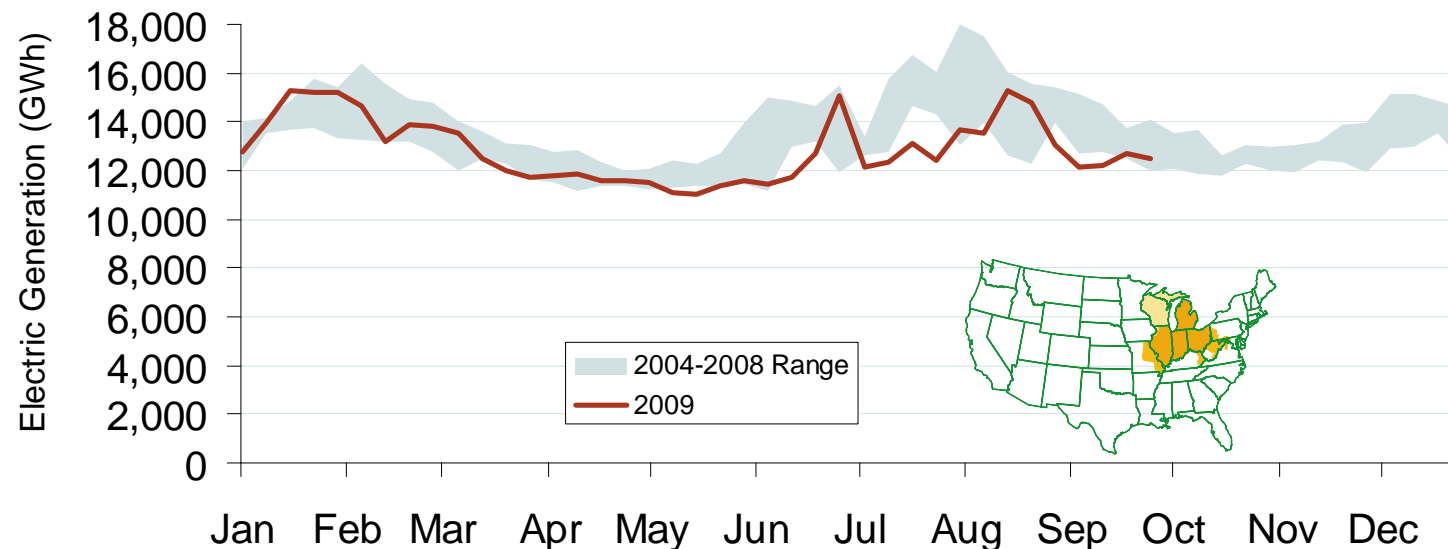
Weekly Electric Generation Output and Temperatures Mid Atlantic Region



Source: Derived from EEI and NOAA data.

Updated October 7, 2009

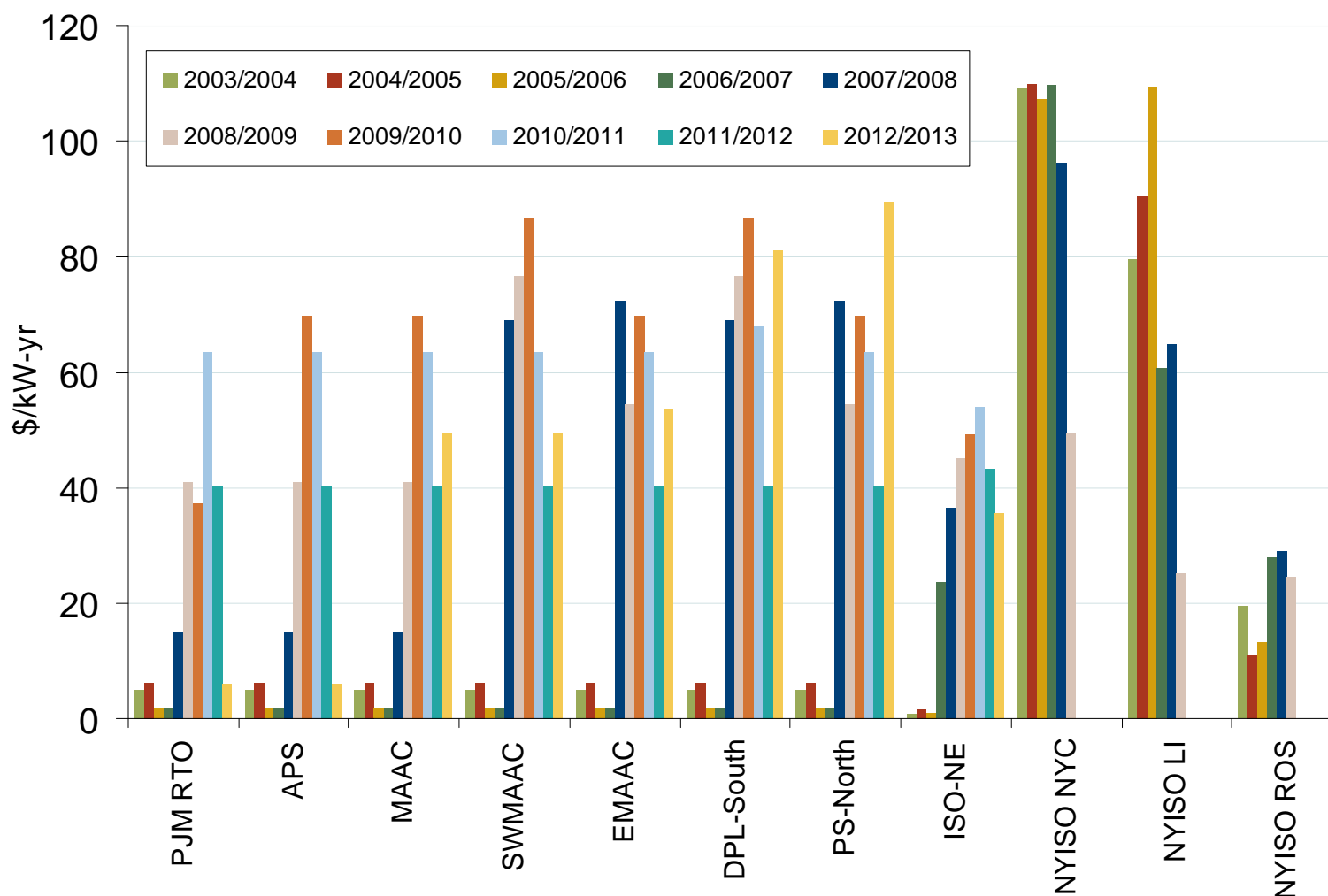
Weekly Electric Generation Output and Temperatures Central Industrial Region



Source: Derived from EEI and NOAA data.

Updated October 7, 2009

PJM, NYISO and ISO-NE Capacity Prices



Note: PJM RPM values are for Base Residual Auctions only.

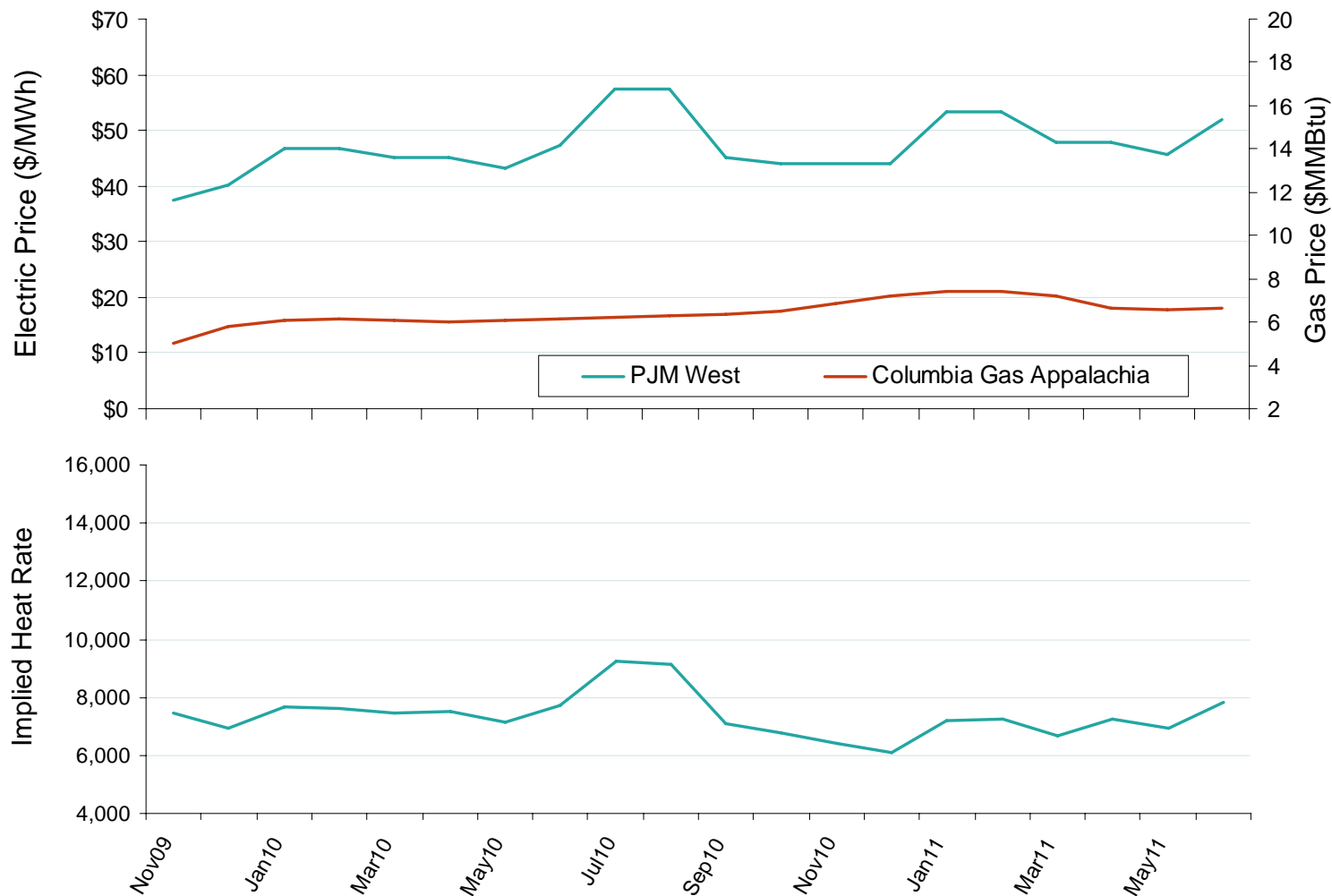
ISO-NE FCM results are based on preliminary FCM auction before pro-rationing and EAS adjustment.

Source: Derived from PJM, NYISO and ISO-NE data

Updated October 7, 2009

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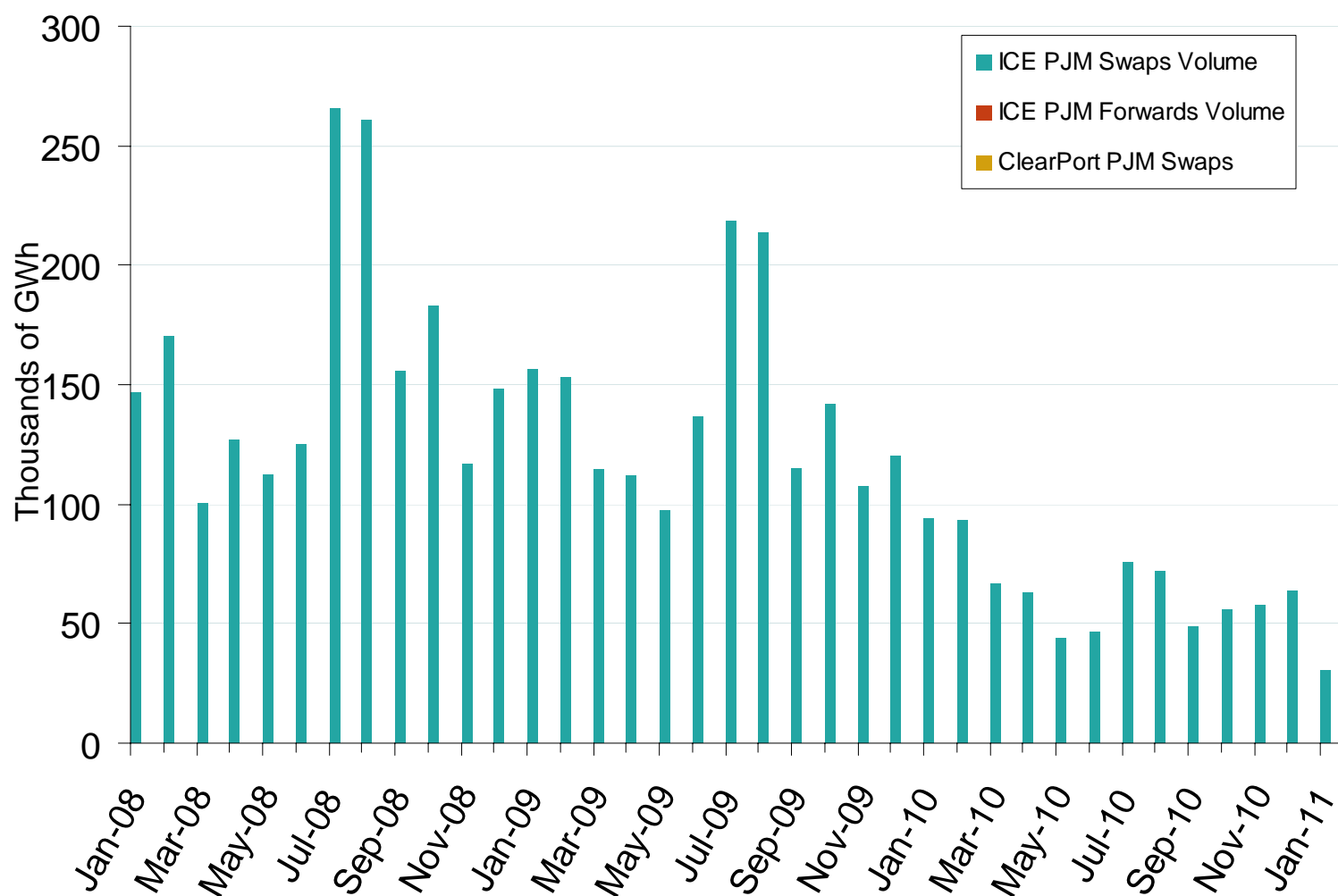
PJM West Electric Forward Price Curves and Implied Heat Rates



Source: Derived from Nymex data.

Updated October 7, 2009

PJM Western Hub Forward and Swap Volumes

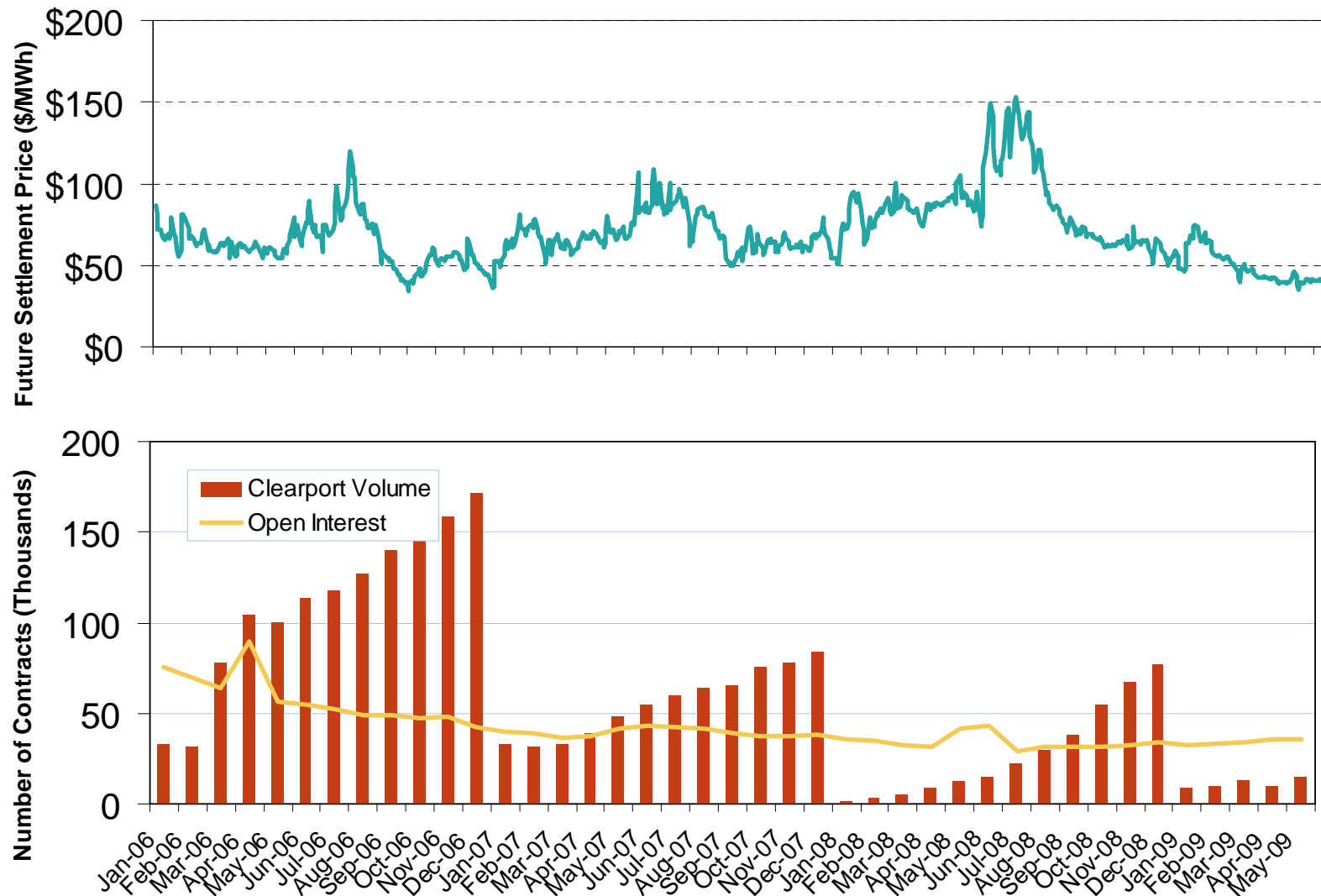


Source: Derived from ICE and Nymex ClearPort data. ICE on-peak forward (physical) and swap (financial) volumes are for PJM's Western Hub and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month. Nymex ClearPort on-peak swap (financial) volumes are for PJM's Western Hub traded by month.

Updated October 7, 2009

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Daily Settlement Price, Monthly Volume and Open Interest



Source: Derived from Nymex data.

Updated June 5, 2009