

# **PJM Market Review**

## **January through November, 2010**

Members Committee  
January 27, 2011

Joseph Bowring

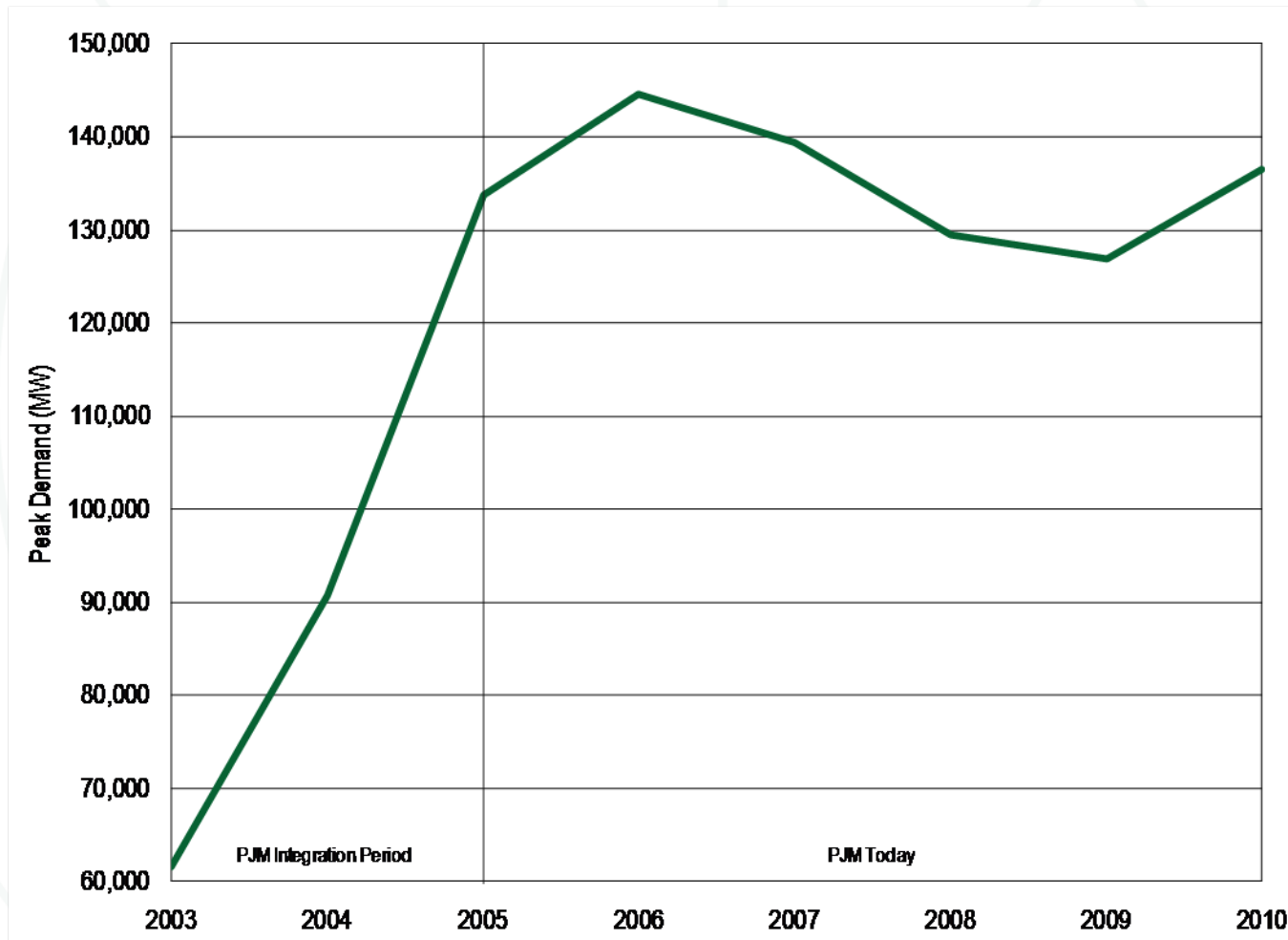


Monitoring Analytics

**Table 1-7 Total price per MWh by Category and Total Revenues by Category: January through December 2009 and January through November 2010 (See 2009 SOM, Table 1-1)**

Category	Totals (\$ Millions) Jan-Dec 2009	Totals (\$ Millions) Jan-Nov 2010	Jan-Dec 2009 \$/MWh	Jan-Nov 2010 \$/MWh	Jan-Dec 2009 Percent	Jan-Nov 2010 Percent
Energy	\$26,008.22	\$30,142.35	\$39.05	\$47.65	70.2%	72.1%
Capacity	\$7,162.71	\$7,714.29	\$10.75	\$12.19	19.3%	18.4%
Transmission Service Charges	\$2,664.73	\$2,556.69	\$4.00	\$4.04	7.2%	6.1%
Operating Reserves (Uplift)	\$324.15	\$473.03	\$0.49	\$0.75	0.9%	1.1%
Reactive	\$228.18	\$253.35	\$0.34	\$0.40	0.6%	0.6%
PJM Administrative Fees	\$242.32	\$232.26	\$0.36	\$0.37	0.7%	0.6%
Regulation	\$203.49	\$222.13	\$0.31	\$0.35	0.5%	0.5%
Transmission Enhancement Cost Recovery	\$63.21	\$104.72	\$0.09	\$0.17	0.2%	0.3%
Transmission Owner (Schedule 1A)	\$56.47	\$56.62	\$0.08	\$0.09	0.2%	0.1%
Synchronized Reserves	\$34.27	\$41.41	\$0.05	\$0.07	0.1%	0.1%
NERC/RFC	\$8.86	\$12.76	\$0.01	\$0.02	0.0%	0.0%
Black Start	\$14.27	\$10.43	\$0.02	\$0.02	0.0%	0.0%
RTO Startup and Expansion	\$9.12	\$8.37	\$0.01	\$0.01	0.0%	0.0%
Load Response	\$1.62	\$4.48	\$0.00	\$0.01	0.0%	0.0%
Transmission Facility Charges	\$1.39	\$1.27	\$0.00	\$0.00	0.0%	0.0%
Total	\$37,023.01	\$41,834.16	\$55.58	\$66.13	100.0%	100.0%

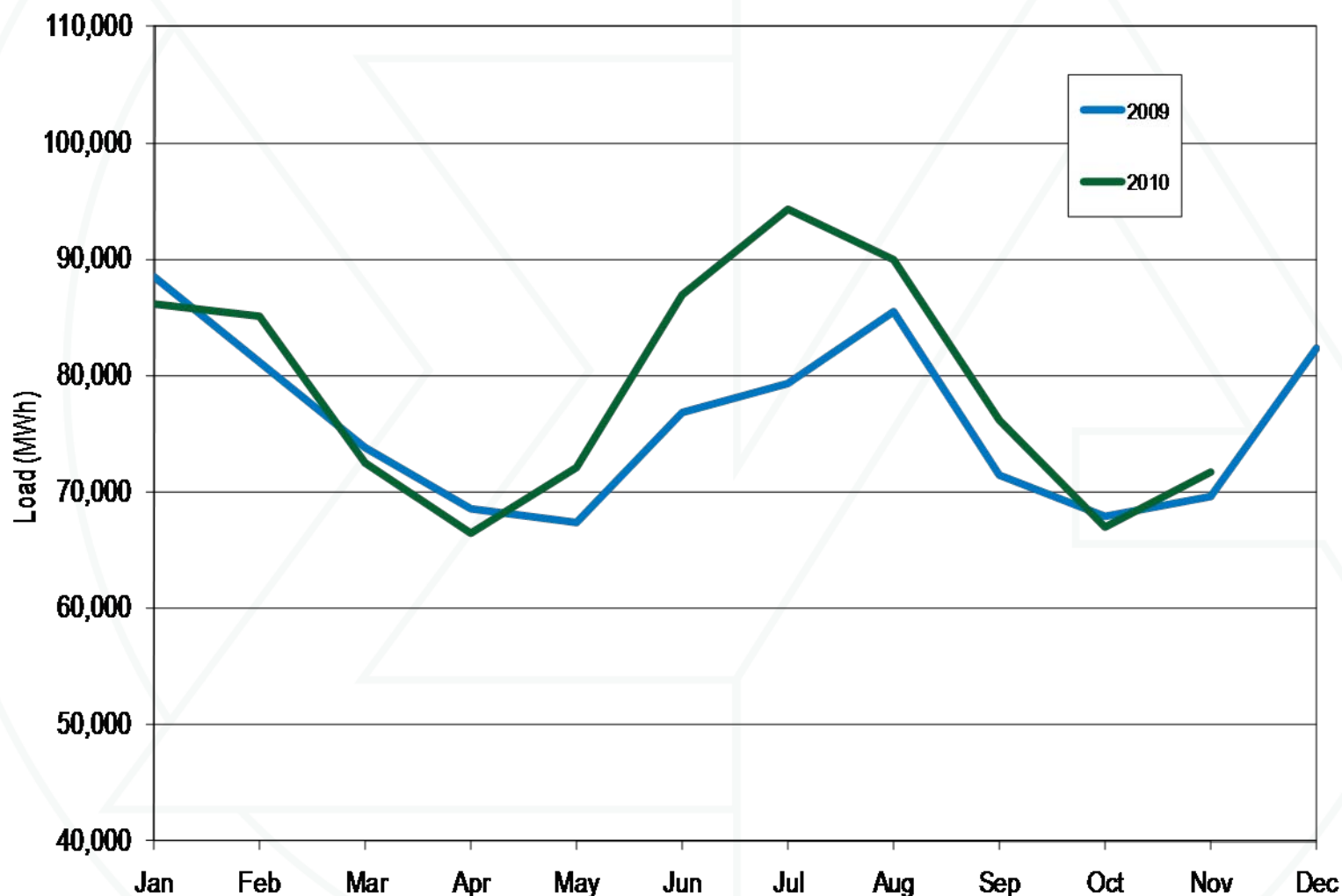
**Figure 2-2 Actual PJM footprint peak loads: January through November of 2003 to 2010 (See 2009 SOM, Figure 2-2)**



**Table 2-53 PJM real-time average load: Calendar years 1998 through November 2010 (See 2009 SOM, Table 2-49)**

	PJM Real-Time Load (MWh)			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
1998	28,578	28,653	5,511	NA	NA	NA
1999	29,641	29,341	5,956	3.7%	2.4%	8.1%
2000	30,113	30,170	5,529	1.6%	2.8%	(7.2%)
2001	30,297	30,219	5,873	0.6%	0.2%	6.2%
2002	35,731	34,746	8,013	17.9%	15.0%	36.5%
2003	37,398	37,031	6,832	4.7%	6.6%	(14.7%)
2004	49,963	48,103	13,004	33.6%	29.9%	90.3%
2005	78,150	76,247	16,296	56.4%	58.5%	25.3%
2006	79,471	78,473	14,534	1.7%	2.9%	(10.8%)
<b>2007</b>	<b>81,681</b>	<b>80,914</b>	<b>14,618</b>	<b>2.8%</b>	<b>3.1%</b>	<b>0.6%</b>
2008	79,515	78,481	13,758	(2.7%)	(3.0%)	(5.9%)
<b>2009</b>	<b>76,035</b>	<b>75,471</b>	<b>13,260</b>	<b>(4.4%)</b>	<b>(3.8%)</b>	<b>(3.6%)</b>
2010	78,919	76,437	15,754	3.8%	1.3%	18.8%

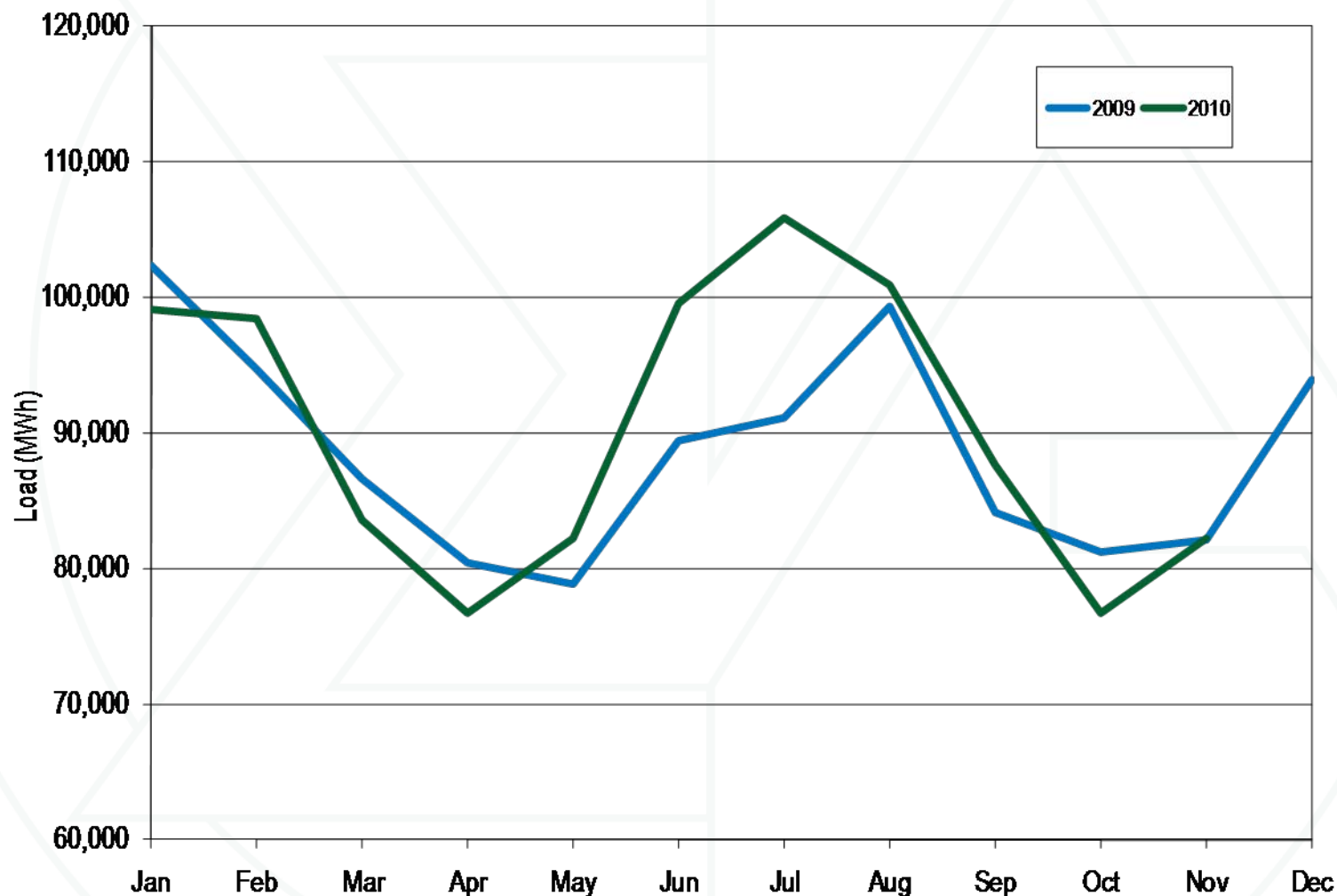
**Figure 2-8 PJM real-time average load: Calendar years 2009 through November 2010 (See 2009 SOM, Figure 2-8)**



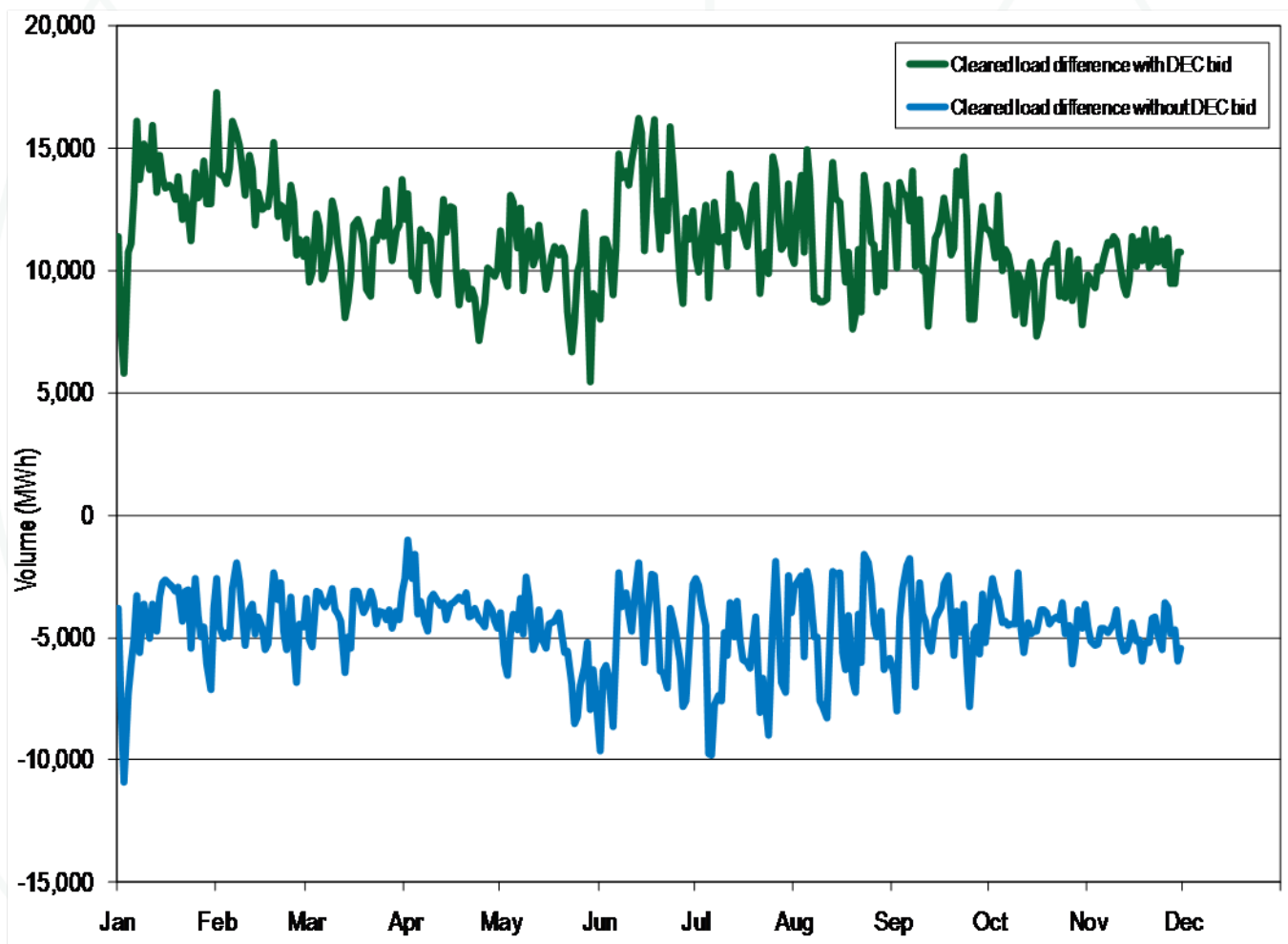
**Table 2-55 PJM day-ahead average load: Calendar years 2000 through November 2010 (See 2009 SOM, Table 2-52)**

	PJM Day-Ahead Load (MWh)			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
2000	33,045	33,217	6,850	NA	NA	NA
2001	33,318	32,812	6,489	0.8%	(1.2%)	(5.3%)
2002	42,131	40,720	10,130	26.4%	24.1%	56.1%
2003	44,340	44,368	7,883	5.2%	9.0%	(22.2%)
2004	61,034	58,544	16,318	37.7%	32.0%	107.0%
2005	92,002	90,424	17,381	50.7%	54.5%	6.5%
2006	94,793	93,331	16,048	3.0%	3.2%	(7.7%)
2007	100,912	99,799	16,190	6.5%	6.9%	0.9%
2008	95,522	94,886	15,439	(5.3%)	(4.9%)	(4.6%)
2009	88,707	88,833	14,896	(7.1%)	(6.4%)	(3.5%)
2010	90,258	87,899	17,328	1.7%	(1.1%)	16.3%

**Figure 2-10 PJM day-ahead average load: Calendar years 2009 through November 2010 (See 2009 SOM, Figure 2-10)**

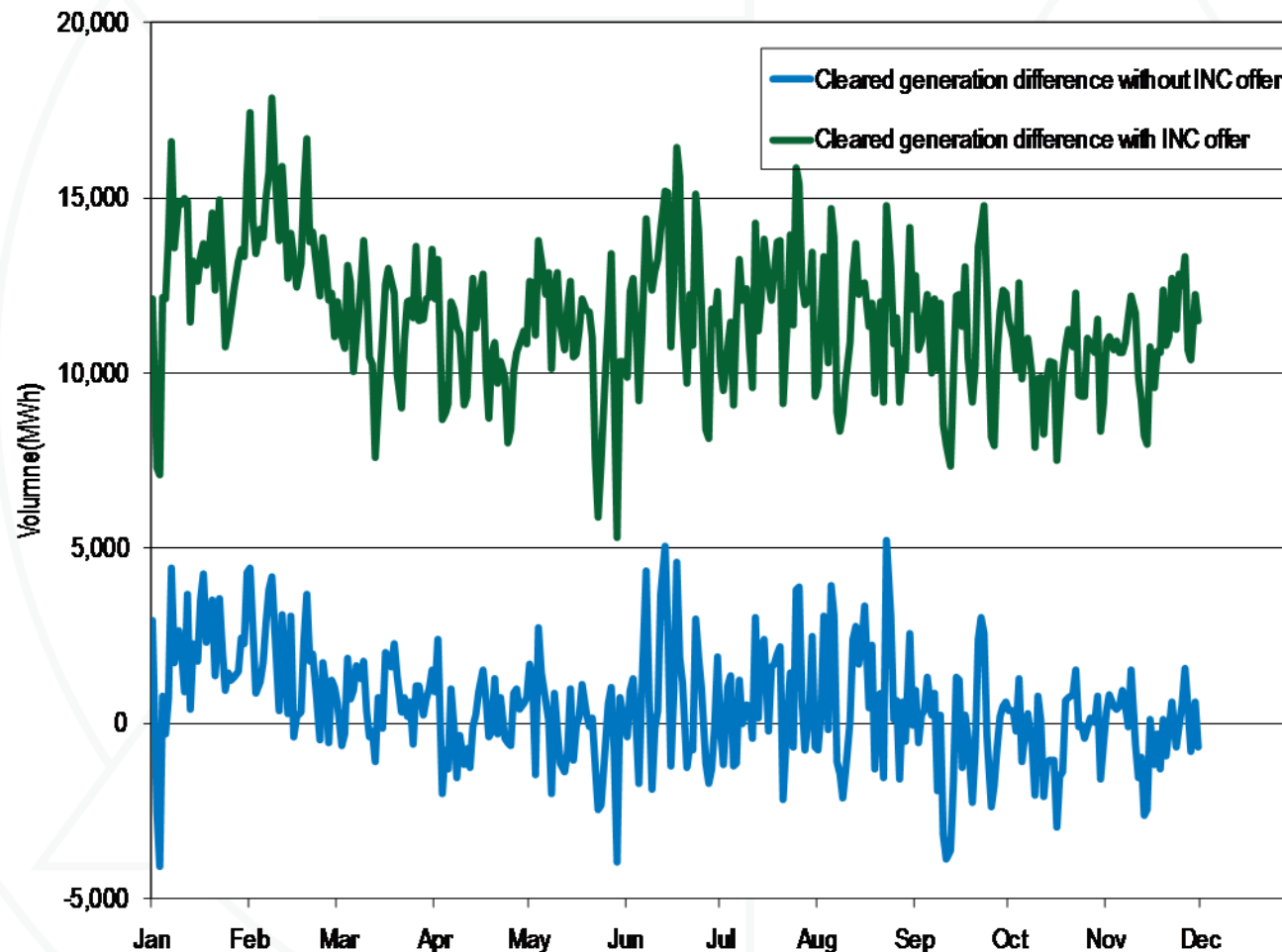


**Figure 2-12 Difference between day-ahead and real-time loads  
(Average daily volumes): January through November 2010  
(New Figure)**





**Figure 2-14 Difference between day-ahead and real-time generation (Average daily volumes): January through November 2010 (New Figure)**



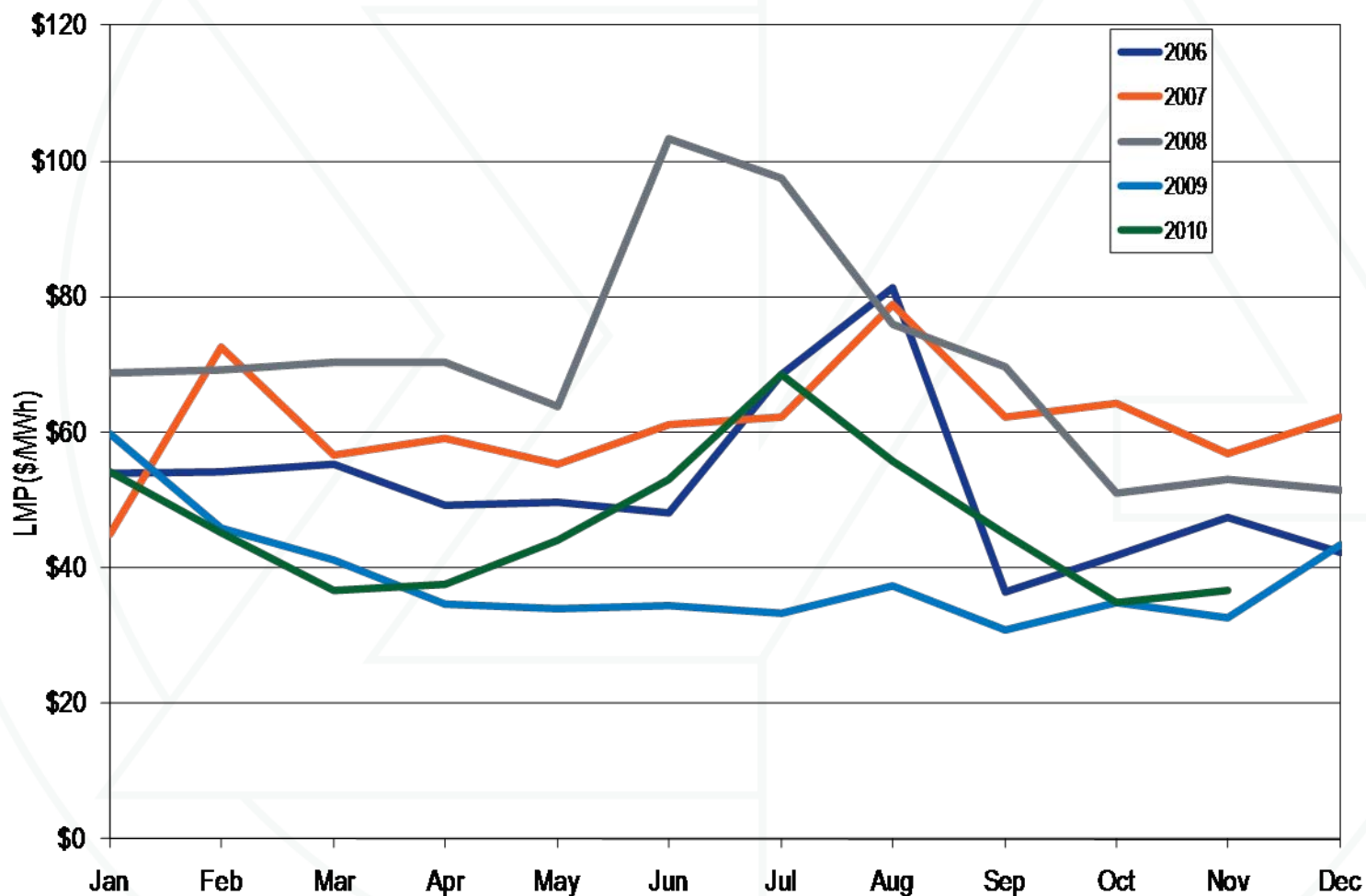
**Table 2-63 PJM real-time, annual, load-weighted, average LMP  
(Dollars per MWh): Calendar years 1998 through November  
2010 (See 2009 SOM, Table 2-59)**

	Real-Time, Load-Weighted, Average LMP			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
1998	\$24.16	\$17.60	\$39.29	NA	NA	NA
1999	\$34.07	\$19.02	\$91.49	<b>41.0%</b>	<b>8.1%</b>	<b>132.8%</b>
2000	\$30.72	\$20.51	\$28.38	(9.8%)	7.9%	(69.0%)
2001	\$36.65	\$25.08	\$57.26	<b>19.3%</b>	<b>22.3%</b>	<b>101.8%</b>
2002	\$31.60	\$23.40	\$26.75	(13.8%)	(6.7%)	(53.3%)
2003	\$41.23	\$34.96	\$25.40	<b>30.5%</b>	<b>49.4%</b>	<b>(5.0%)</b>
2004	\$44.34	\$40.16	\$21.25	7.5%	14.9%	(16.3%)
2005	\$63.46	\$52.93	\$38.10	<b>43.1%</b>	<b>31.8%</b>	<b>79.3%</b>
2006	\$53.35	\$44.40	\$37.81	(15.9%)	(16.1%)	(0.7%)
<b>2007</b>	<b>\$61.66</b>	<b>\$54.66</b>	<b>\$36.94</b>	<b>15.6%</b>	<b>23.1%</b>	<b>(2.3%)</b>
2008	\$71.13	\$59.54	\$40.97	15.4%	8.9%	10.9%
<b>2009</b>	<b>\$39.05</b>	<b>\$34.23</b>	<b>\$18.21</b>	<b>(45.1%)</b>	<b>(42.5%)</b>	<b>(55.6%)</b>
2010	\$47.65	\$38.60	\$28.16	22.0%	12.8%	54.6%

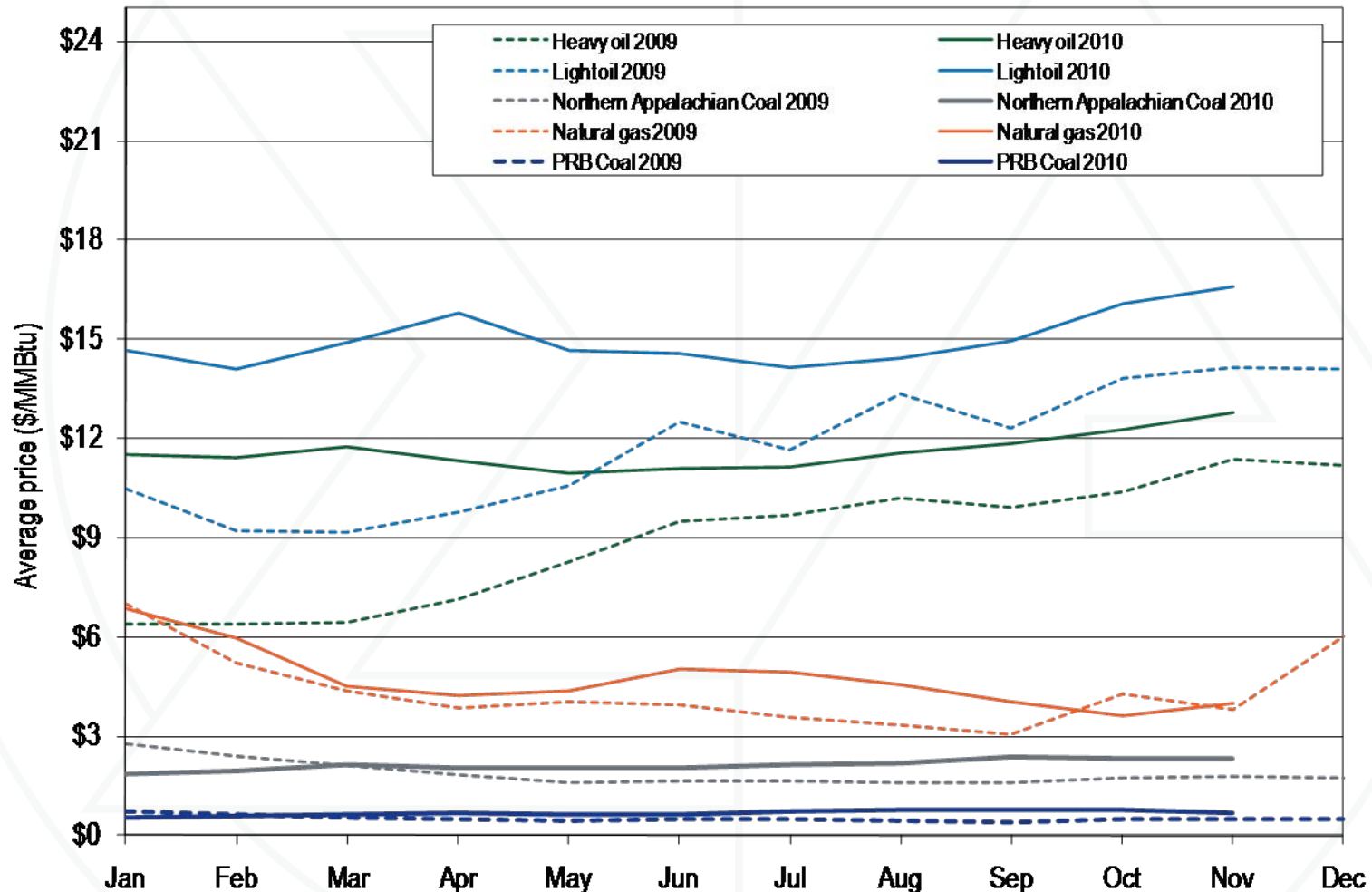
**Table 2-64 PJM real-time, annual, load-weighted, average LMP (Dollars per MWh): January through November 2006, 2007, 2008, 2009 and 2010 (New Table)**

	Real-Time, Load-Weighted, Average LMP			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
2006 (Jan - Nov)	\$54.39	\$45.41	\$38.46	NA	NA	NA
2007 (Jan - Nov)	<b>\$61.61</b>	<b>\$54.89</b>	<b>\$37.07</b>	<b>13.3%</b>	<b>20.9%</b>	<b>(3.6%)</b>
2008 (Jan - Nov)	\$73.03	\$61.58	\$41.82	18.5%	12.2%	12.8%
2009 (Jan - Nov)	<b>\$38.60</b>	<b>\$33.91</b>	<b>\$18.13</b>	<b>(47.1%)</b>	<b>(44.9%)</b>	<b>(56.6%)</b>
2010 (Jan - Nov)	\$47.65	\$38.60	\$28.16	23.4%	13.8%	55.3%

**Figure 2-16 PJM real-time, monthly, load-weighted, average LMP: Calendar years 2006 through November 2010 (See 2009 SOM, Figure 2-14)**



**Figure 2-17 Spot average fuel price comparison: Calendar years 2009 through November 2010 (See 2009 SOM, Figure 2-15)**



**Table 2-74 PJM day-ahead, load-weighted, average LMP  
(Dollars per MWh): Calendar years 2000 through November  
2010 (See 2009 SOM, Table 2-68)**

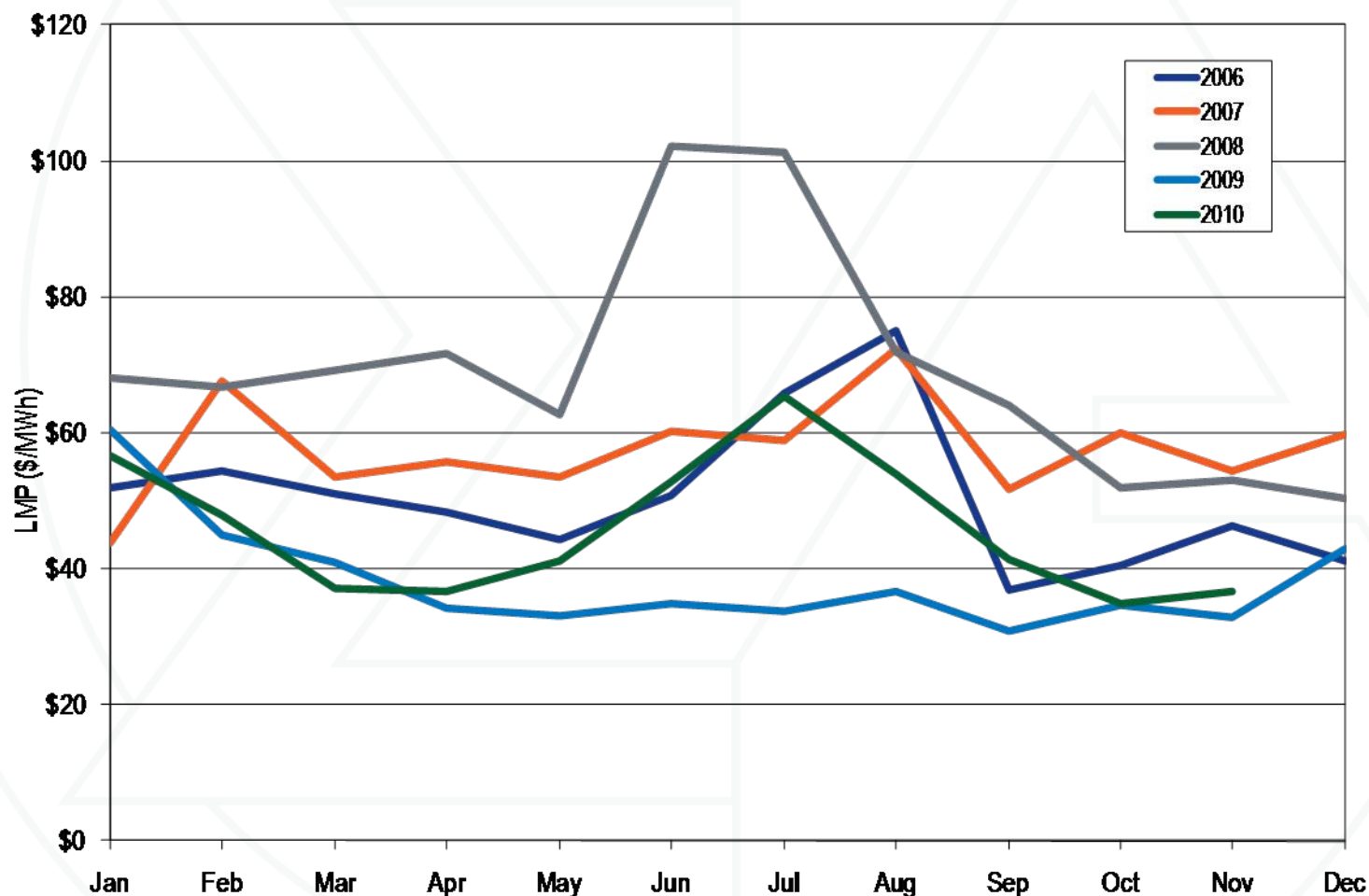
	Day-Ahead, Load-Weighted, Average LMP			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
2000	\$35.12	\$28.50	\$22.26	NA	NA	NA
2001	\$36.01	\$29.02	\$37.48	2.5%	1.8%	68.3%
2002	\$31.80	\$26.00	\$20.68	(11.7%)	(10.4%)	(44.8%)
2003	\$41.43	\$38.29	\$21.32	30.3%	47.3%	3.1%
2004	\$42.87	\$41.96	\$16.32	3.5%	9.6%	(23.4%)
2005	<b>\$62.50</b>	<b>\$54.74</b>	<b>\$31.72</b>	<b>45.8%</b>	<b>30.4%</b>	<b>94.3%</b>
2006	\$51.33	\$46.72	\$26.45	(17.9%)	(14.6%)	(16.6%)
2007	<b>\$57.88</b>	<b>\$55.91</b>	<b>\$25.02</b>	<b>12.8%</b>	<b>19.7%</b>	<b>(5.4%)</b>
2008	\$70.25	\$62.91	\$33.14	21.4%	12.5%	32.4%
2009	<b>\$38.82</b>	<b>\$36.67</b>	<b>\$14.03</b>	<b>(44.7%)</b>	<b>(41.7%)</b>	<b>(57.7%)</b>
2010	\$46.98	\$41.49	\$20.39	21.0%	13.1%	45.4%

**Table 2-75 PJM day-ahead, load-weighted, average LMP  
(Dollars per MWh): January through November 2006, 2007,  
2008, 2009 to 2010 (New Table)**

	Day-Ahead, Load-Weighted, Average LMP			Year-to-Year Change		
	Average	Median	Standard Deviation	Average	Median	Standard Deviation
2006 (Jan - Nov)	\$52.31	\$47.69	\$26.95	NA	NA	NA
2007 (Jan - Nov)	<b>\$57.70</b>	<b>\$55.96</b>	<b>\$25.29</b>	<b>10.3%</b>	<b>17.3%</b>	<b>(6.1%)</b>
2008 (Jan - Nov)	\$72.09	\$65.22	\$33.75	24.9%	16.5%	33.4%
2009 (Jan - Nov)	<b>\$38.41</b>	<b>\$36.23</b>	<b>\$14.16</b>	<b>(46.7%)</b>	<b>(44.5%)</b>	<b>(58.1%)</b>
2010 (Jan - Nov)	\$46.98	\$41.49	\$20.39	22.3%	14.5%	44.0%



**Figure 2-20 Day-ahead, monthly, load-weighted, average LMP: Calendar years 2006 through November 2010 (See 2009 SOM, Figure 2-18)**





**Table 2-91 PJM virtual bids by type of bid parent organization (MW): January through November 2010 (See 2009 SOM, Table 2-84)**

	Category	Total Virtual Bids MW	Percentage
2010	Financial	152,197,534	41.2%
2010	Physical	217,151,282	58.8%
2010	Total	369,348,816	100.0%

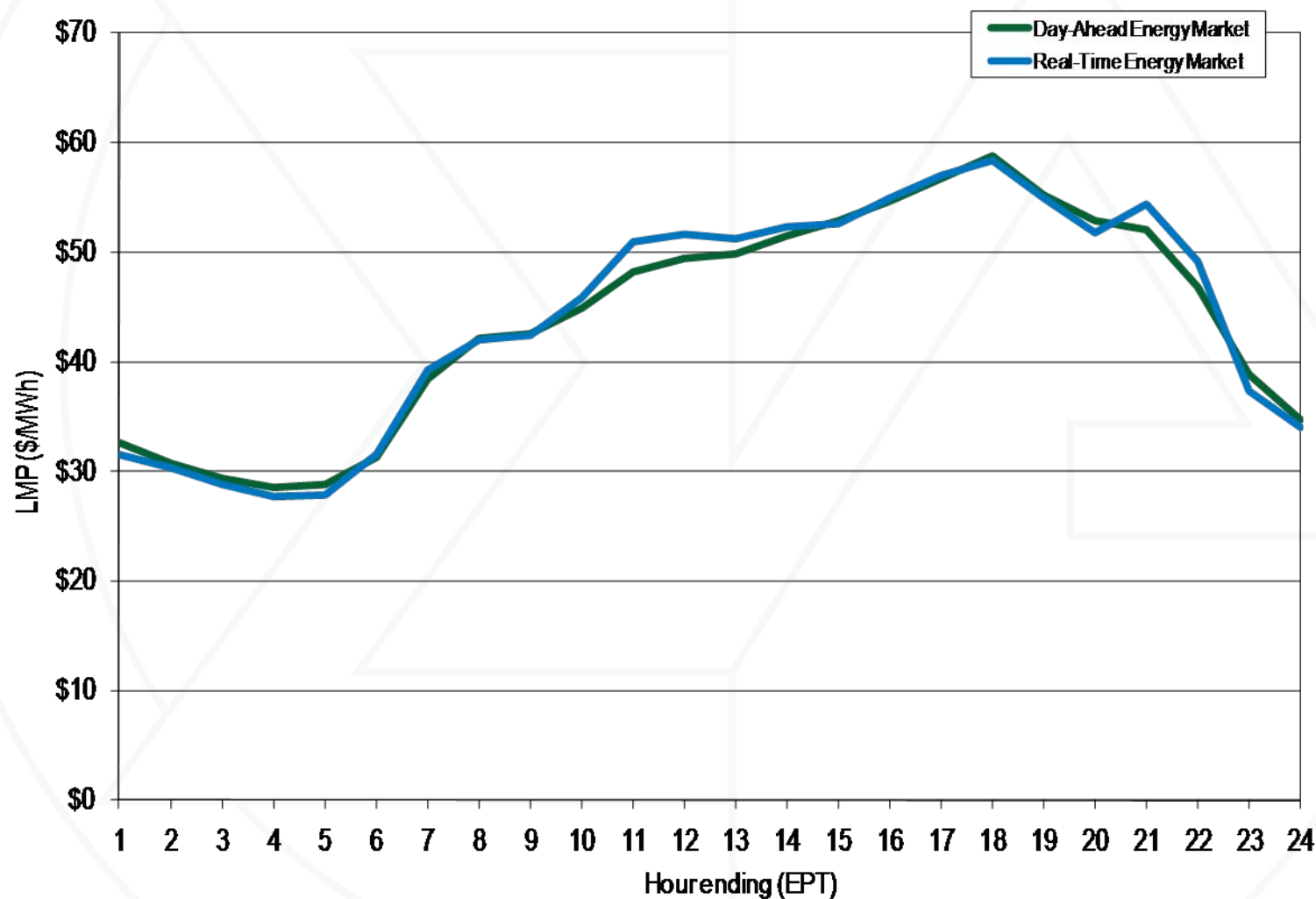
**Table 2-92 PJM virtual bids by top ten locations (MW): January through November 2010 (See 2009 SOM, Table 2-85)**

Aggregate Name	Aggregate Type	INC MW	DEC MW	Total MW
WESTERN HUB	HUB	55,083,354	62,534,973	117,618,326
N ILLINOIS HUB	HUB	10,668,350	11,210,144	21,878,494
AEP-DAYTON HUB	HUB	5,423,597	7,018,222	12,441,820
PPL	ZONE	480,977	7,727,451	8,208,427
PSEG	ZONE	2,407,133	5,108,756	7,515,889
Pepco	ZONE	5,905,364	1,153,245	7,058,610
BGE	ZONE	3,658,154	3,310,469	6,968,624
JCPL	ZONE	3,926,887	2,186,370	6,113,257
MISO	INTERFACE	1,164,158	3,458,823	4,622,981
ComEd	ZONE	2,037,735	2,291,319	4,329,053

**Table 2-94 Day-ahead and real-time simple annual average LMP (Dollars per MWh): Calendar years 2000 through November 2010 (See 2009 SOM, Table 2-87)**

	Day Ahead	Real Time	Difference	Difference as Percent of Real Time
2000	\$31.97	\$30.36	(\$1.61)	(5.0%)
2001	<b>\$32.75</b>	<b>\$32.38</b>	<b>(\$0.37)</b>	<b>(1.1%)</b>
2002	\$28.46	\$28.30	(\$0.16)	(0.6%)
2003	<b>\$38.73</b>	<b>\$38.28</b>	<b>(\$0.45)</b>	<b>(1.2%)</b>
2004	\$41.43	\$42.40	\$0.97	2.3%
2005	<b>\$57.89</b>	<b>\$58.08</b>	<b>\$0.18</b>	<b>0.3%</b>
2006	\$48.10	\$49.27	\$1.17	2.4%
2007	<b>\$54.67</b>	<b>\$57.58</b>	<b>\$2.90</b>	<b>5.3%</b>
2008	\$66.12	\$66.40	\$0.28	0.4%
2009	<b>\$37.00</b>	<b>\$37.08</b>	<b>\$0.08</b>	<b>0.2%</b>
2010	\$43.84	\$44.08	\$0.24	0.5%

**Figure 2-24 PJM system simple hourly average LMP: January through November 2010 (See 2009 SOM, Figure 2-22)**



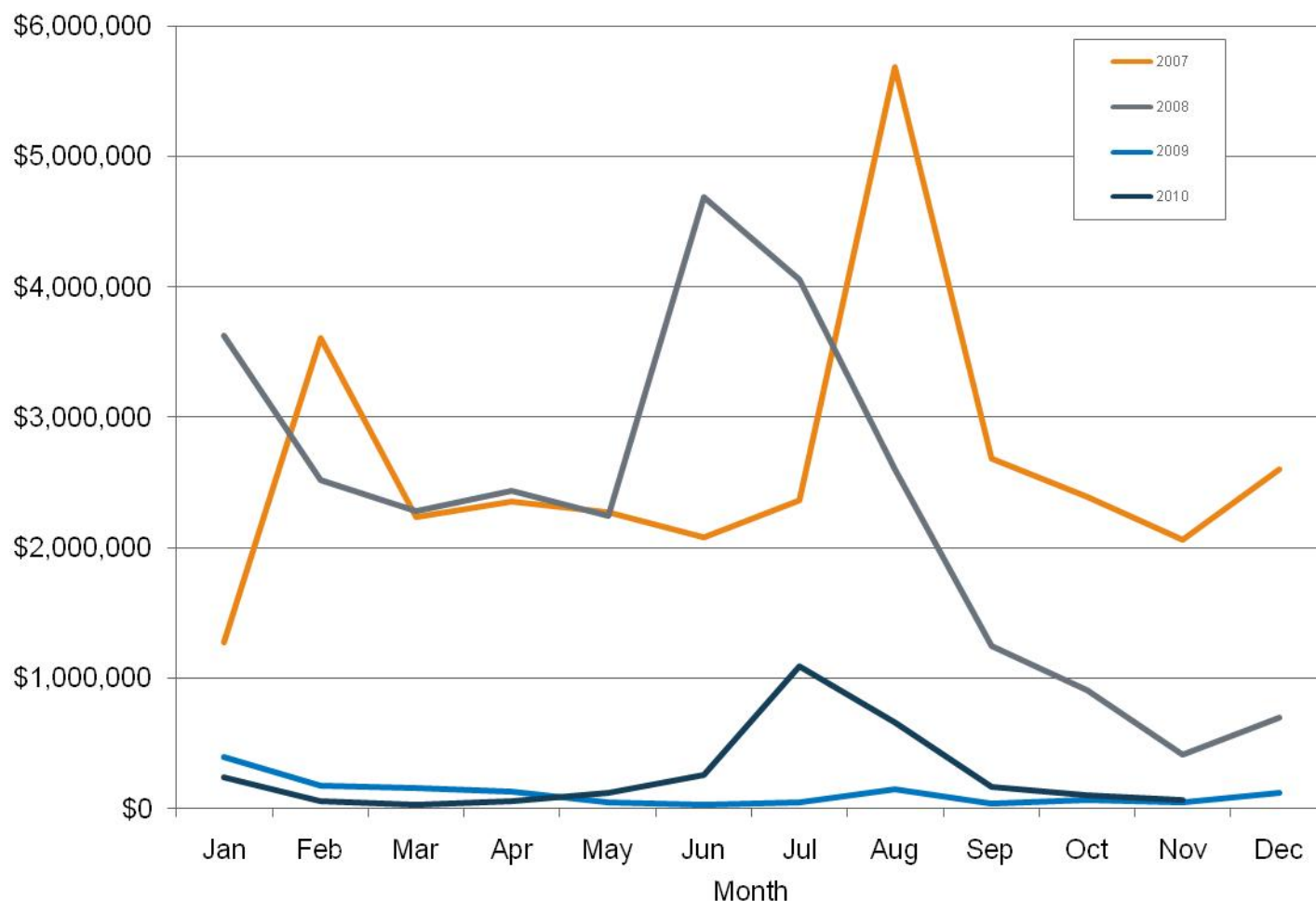
**Table 2-97 Zonal Monthly Capacity Credits in the Load Management Program: January through November 2010 (See 2009 SOM, Table 2-106)**

Zone	January	February	March	April	May	June	July	August	September	October	November	Total
AECO	\$538,827	\$486,683	\$387,589	\$521,446	\$538,827	\$498,630	\$515,251	\$515,251	\$498,630	\$515,251	\$498,630	\$5,515,014
AEP	<b>\$3,871,619</b>	<b>\$3,496,946</b>	<b>\$3,871,619</b>	<b>\$3,746,728</b>	<b>\$3,871,619</b>	<b>\$7,469,753</b>	<b>\$7,718,744</b>	<b>\$7,718,744</b>	<b>\$7,469,753</b>	<b>\$7,718,744</b>	<b>\$7,469,753</b>	<b>\$64,424,021</b>
APS	\$3,380,342	\$3,053,212	\$3,082,016	\$3,271,298	\$3,380,342	\$4,134,986	\$4,272,819	\$4,272,819	\$4,134,986	\$4,272,819	\$4,134,986	\$41,390,626
BGE	<b>\$4,971,814</b>	<b>\$4,490,671</b>	<b>\$4,613,517</b>	<b>\$4,811,433</b>	<b>\$4,971,814</b>	<b>\$4,877,253</b>	<b>\$5,039,828</b>	<b>\$5,039,828</b>	<b>\$4,877,253</b>	<b>\$5,039,828</b>	<b>\$4,877,253</b>	<b>\$53,610,492</b>
ComEd	\$4,423,355	\$3,995,288	\$4,357,876	\$4,280,666	\$4,423,355	\$7,893,843	\$8,156,971	\$8,156,971	\$7,893,843	\$8,156,971	\$7,893,843	\$69,632,981
DAY	<b>\$667,966</b>	<b>\$603,324</b>	<b>\$667,966</b>	<b>\$646,419</b>	<b>\$667,966</b>	<b>\$1,114,399</b>	<b>\$1,151,545</b>	<b>\$1,151,545</b>	<b>\$1,114,399</b>	<b>\$1,151,545</b>	<b>\$1,114,399</b>	<b>\$10,051,474</b>
DLCO	\$387,642	\$350,129	\$387,642	\$375,138	\$387,642	\$1,082,462	\$1,118,544	\$1,118,544	\$1,082,462	\$1,118,544	\$1,082,462	\$8,491,212
Dominion	<b>\$1,655,820</b>	<b>\$1,495,580</b>	<b>\$1,655,820</b>	<b>\$1,602,407</b>	<b>\$1,655,820</b>	<b>\$5,271,768</b>	<b>\$5,447,494</b>	<b>\$5,447,494</b>	<b>\$5,271,768</b>	<b>\$5,447,494</b>	<b>\$5,271,768</b>	<b>\$40,223,234</b>
DPL	\$1,117,919	\$1,009,733	\$1,004,045	\$1,081,857	\$1,117,919	\$1,053,129	\$1,088,233	\$1,088,233	\$1,053,129	\$1,088,233	\$1,053,129	\$11,755,557
JCPL	<b>\$1,374,149</b>	<b>\$1,241,167</b>	<b>\$897,896</b>	<b>\$1,329,822</b>	<b>\$1,374,149</b>	<b>\$1,259,066</b>	<b>\$1,301,034</b>	<b>\$1,301,034</b>	<b>\$1,259,066</b>	<b>\$1,301,034</b>	<b>\$1,259,066</b>	<b>\$13,897,482</b>
Met-Ed	\$1,357,392	\$1,226,031	\$1,357,392	\$1,313,605	\$1,357,392	\$1,166,215	\$1,205,089	\$1,205,089	\$1,166,215	\$1,205,089	\$1,166,215	\$13,725,724
PECO	<b>\$2,717,550</b>	<b>\$2,454,561</b>	<b>\$2,120,899</b>	<b>\$2,629,887</b>	<b>\$2,717,550</b>	<b>\$2,735,060</b>	<b>\$2,826,229</b>	<b>\$2,826,229</b>	<b>\$2,735,060</b>	<b>\$2,826,229</b>	<b>\$2,735,060</b>	<b>\$29,324,313</b>
PENELEC	\$1,325,705	\$1,197,411	\$1,325,705	\$1,282,941	\$1,325,705	\$1,768,655	\$1,827,610	\$1,827,610	\$1,768,655	\$1,827,610	\$1,768,655	\$17,246,261
Pepco	<b>\$1,161,239</b>	<b>\$1,048,861</b>	<b>\$814,714</b>	<b>\$1,123,780</b>	<b>\$1,161,239</b>	<b>\$1,265,186</b>	<b>\$1,307,359</b>	<b>\$1,307,359</b>	<b>\$1,265,186</b>	<b>\$1,307,359</b>	<b>\$1,265,186</b>	<b>\$13,027,467</b>
PPL	\$3,583,739	\$3,236,926	\$3,617,545	\$3,468,134	\$3,583,739	\$3,982,417	\$4,115,164	\$4,115,164	\$3,982,417	\$4,115,164	\$3,982,417	\$41,782,826
PSEG	<b>\$2,266,920</b>	<b>\$2,047,540</b>	<b>\$1,777,619</b>	<b>\$2,193,793</b>	<b>\$2,266,920</b>	<b>\$2,454,980</b>	<b>\$2,536,813</b>	<b>\$2,536,813</b>	<b>\$2,454,980</b>	<b>\$2,536,813</b>	<b>\$2,454,980</b>	<b>\$25,528,172</b>
RECO	\$24,425	\$22,061	\$18,494	\$23,637	\$24,425	\$8,967	\$9,266	\$9,266	\$8,967	\$9,266	\$8,967	\$167,741
<b>Total</b>	<b>\$34,826,423</b>	<b>\$31,456,124</b>	<b>\$31,958,354</b>	<b>\$33,702,990</b>	<b>\$34,826,423</b>	<b>\$48,036,768</b>	<b>\$49,637,993</b>	<b>\$49,637,993</b>	<b>\$48,036,768</b>	<b>\$49,637,993</b>	<b>\$48,036,768</b>	<b>\$459,794,596</b>

**Table 2-90 Economic Program Participation by zonal reduction: January through November 2010 (See 2009 SOM, Table 2-99)**

	Real Time			Day Ahead			Dispatched in Real Time			Totals		
	MWh	Credits	Hours	MWh	Credits	Hours	MWh	Credits	Hours	MWh	Credits	Hours
AECO	9	\$406	8				78	\$4,620	79	87	\$5,026	87
<b>AEP</b>	<b>7</b>	<b>\$56</b>	<b>3</b>							<b>7</b>	<b>\$56</b>	<b>3</b>
AP	4,268	\$113,214	1,192				110	\$11,535	39	4,378	\$124,750	1,231
<b>BGE</b>	<b>1,806</b>	<b>\$300,724</b>	<b>251</b>				<b>1,873</b>	<b>\$145,183</b>	<b>232</b>	<b>3,679</b>	<b>\$445,908</b>	<b>483</b>
ComEd	121	\$3,628	122				2,166	\$36,168	986	2,287	\$39,796	1,108
<b>DAY</b>	<b>0</b>	<b>\$8</b>	<b>2</b>				<b>11</b>	<b>\$1,165</b>	<b>1</b>	<b>11</b>	<b>\$1,173</b>	<b>3</b>
DLCO										0	\$0	0
<b>Dominion</b>	<b>12,729</b>	<b>\$957,661</b>	<b>876</b>	<b>13,376</b>	<b>\$415,711</b>	<b>2,078</b>	<b>1,054</b>	<b>\$50,637</b>	<b>1,109</b>	<b>27,160</b>	<b>\$1,424,010</b>	<b>4,063</b>
DPL	1	\$248	10							1	\$248	10
<b>JCPL</b>	<b>200</b>	<b>\$18,384</b>	<b>31</b>				<b>35</b>	<b>\$2,155</b>	<b>130</b>	<b>235</b>	<b>\$20,539</b>	<b>161</b>
Met-Ed	33	\$1,359	36							33	\$1,359	36
<b>PECO</b>	<b>31,012</b>	<b>\$715,695</b>	<b>21,334</b>				<b>463</b>	<b>\$44,408</b>	<b>1,833</b>	<b>31,475</b>	<b>\$760,103</b>	<b>23,167</b>
PENELEC	40	\$645	36				3	\$273	14	43	\$918	50
<b>Pepco</b>	<b>28</b>	<b>\$1,564</b>	<b>75</b>				<b>30</b>	<b>\$1,542</b>	<b>132</b>	<b>58</b>	<b>\$3,106</b>	<b>207</b>
PPL	425	\$11,283	415	3	\$407	11	51	\$3,558	225	479	\$15,249	651
<b>PSEG</b>	<b>61</b>	<b>\$1,458</b>	<b>114</b>							<b>61</b>	<b>\$1,458</b>	<b>114</b>
RECO	0	\$24	1							0	\$24	1
<b>Total</b>	<b>50,741</b>	<b>\$2,126,356</b>	<b>24,506</b>	<b>13,379</b>	<b>\$416,119</b>	<b>2,089</b>	<b>5,875</b>	<b>\$301,246</b>	<b>4,780</b>	<b>69,995</b>	<b>\$2,843,720</b>	<b>31,375</b>
Max	31,012	\$957,661	21,334	13,376	\$415,711	2,078	2,166	\$145,183	1,833	31,475	\$1,424,010	23,167
<b>Avg</b>	<b>3,171</b>	<b>\$132,897</b>	<b>1,532</b>	<b>6,690</b>	<b>\$208,059</b>	<b>1,045</b>	<b>534</b>	<b>\$27,386</b>	<b>435</b>	<b>4,117</b>	<b>\$167,278</b>	<b>1,846</b>

**Figure 2-25 Economic Program payments: Calendar years 2007 through 2009 and January through November 2010 (See 2009 SOM, Figure 2-24)**





**Table 2-112 Demand Response (DR) offered and cleared in RPM Base Residual Auction: Delivery years 2007/2008 through 2013/2014 (See 2009 SOM, Table 2-107)**

<b>Delivery Year</b>	<b>DR Offered in BRA</b>	<b>DR Cleared in BRA</b>
2007/2008	123.5	123.5
2008/2009	691.9	518.5
2009/2010	906.9	865.2
2010/2011	935.6	908.1
2011/2012	1,597.3	1,319.5
2012/2013	9,535.4	6,824.1
2013/2014	12,528.7	8,977.4



**Table 3-23 PJM installed capacity (By fuel source): January 1, May 31, June 1, and November 30, 2010 (See 2009 SOM, Table 3-35)**

	1-Jan-10		31-May-10		1-Jun-10		30-Nov-10	
	MW	Percent	MW	Percent	MW	Percent	MW	Percent
Coal	68,382.1	40.7%	68,155.5	40.7%	67,991.1	40.8%	68,007.0	40.8%
Gas	<b>49,238.8</b>	<b>29.3%</b>	<b>48,991.4</b>	<b>29.3%</b>	<b>48,424.5</b>	<b>29.0%</b>	<b>48,513.8</b>	<b>29.1%</b>
Hydroelectric	7,921.9	4.7%	7,923.5	4.7%	7,923.5	4.8%	7,954.5	4.8%
Nuclear	<b>30,611.9</b>	<b>18.2%</b>	<b>30,599.3</b>	<b>18.3%</b>	<b>30,619.0</b>	<b>18.4%</b>	<b>30,737.4</b>	<b>18.4%</b>
Oil	10,700.1	6.4%	10,649.4	6.4%	10,645.5	6.4%	10,193.6	6.1%
Solid waste	<b>672.1</b>	<b>0.4%</b>	<b>672.1</b>	<b>0.4%</b>	<b>672.1</b>	<b>0.4%</b>	<b>680.1</b>	<b>0.4%</b>
Wind	326.9	0.2%	409.5	0.2%	481.1	0.3%	591.3	0.4%
Total	<b>167,853.8</b>	<b>100.0%</b>	<b>167,400.7</b>	<b>100.0%</b>	<b>166,756.8</b>	<b>100.0%</b>	<b>166,677.7</b>	<b>100.0%</b>

**Table 3-24 PJM generation (By fuel source (GWh)): January through November 2010 (See 2009 SOM, Table 3-36)**

	GWh	Percent
Coal	329,231.6	49.3%
<b>Nuclear</b>	<b>231,159.1</b>	<b>34.6%</b>
Gas	77,965.4	11.7%
Natural Gas	76,464.1	11.4%
Landfill Gas	1,500.9	0.2%
Biomass Gas	0.4	0.0%
<b>Hydroelectric</b>	<b>13,157.1</b>	<b>2.0%</b>
Wind	7,694.0	1.2%
<b>Waste</b>	<b>5,617.2</b>	<b>0.8%</b>
Solid Waste	4,247.6	0.6%
Miscellaneous	1,369.6	0.2%
Oil	3,087.9	0.5%
Heavy Oil	2,625.6	0.4%
Light Oil	417.8	0.1%
Diesel	29.3	0.0%
Kerosene	15.2	0.0%
Jet Oil	0.1	0.0%
<b>Solar</b>	<b>5.0</b>	<b>0.0%</b>
Battery	0.3	0.0%
<b>Total</b>	<b>667,917.7</b>	<b>100.0%</b>

**Table 3-42 Regional balancing charges allocation: January through November 2010 (See 2009 SOM, Table 3-55)**

	Reliability Charges			Deviation Charges				Total
	Real-Time Load	Real-Time Exports	Reliability Total	Demand Deviations	Supply Deviations	Generator Deviations	Deviations Total	
RTO	\$30,123,879 11.5%	\$1,242,651 0.5%	\$31,366,530 12.0%	\$73,783,792 28.2%	\$35,280,178 13.5%	\$22,225,615 8.5%	\$131,289,585 50.1%	\$162,656,115 62.1%
East	\$43,499,333 16.6%	\$1,624,709 0.6%	\$45,124,042 17.2%	\$14,069,823 5.4%	\$6,124,129 2.3%	\$3,414,815 1.3%	\$23,608,767 9.0%	\$68,732,809 26.2%
West	\$18,551,423 7.1%	\$802,954 0.3%	\$19,354,377 7.4%	\$6,274,650 2.4%	\$2,690,458 1.0%	\$2,360,129 0.9%	\$11,325,237 4.3%	\$30,679,614 11.7%
Total	\$92,174,635 35.2%	\$3,670,313 1.4%	\$95,844,949 36.6%	\$94,128,265 35.9%	\$44,094,765 16.8%	\$28,000,559 10.7%	\$166,223,589 63.4%	\$262,068,538 100.0%

**Table 3-54 Difference in total operating reserve charges between old rules and new rules: January through November 2010 (See 2009 SOM, Table 3-70)**

	Reliability Charges			Deviation Charges			
	Real-Time Load	Real-Time Exports	Reliability Total	Demand Deviations	Injection Deviations	Generator Deviations	Deviations Total
Charges (Old)	\$0	\$0	\$0	\$147,904,857	\$69,558,520	\$44,605,161	\$262,068,538
Charges (Current)	\$92,174,635	\$3,670,313	\$95,844,949	\$94,128,265	\$44,094,765	\$28,000,559	\$166,223,589
Difference	\$92,174,635	\$3,670,313	\$95,844,949	(\$53,776,592)	(\$25,463,755)	(\$16,604,602)	(\$95,844,949)

**Table 3-56 Comparison of balancing operating reserve charges to virtual bids: January through November 2010 (See 2009 SOM, Table 3-72)**

Month	Charges Under Current Rules	Charges Under Old Rules	Difference
Jan	\$10,190,867	\$12,708,013	(\$2,517,146)
Feb	\$3,936,420	\$5,382,344	(\$1,445,924)
Mar	\$3,468,829	\$4,612,939	(\$1,144,110)
Apr	\$5,301,308	\$6,530,621	(\$1,229,313)
May	\$10,158,307	\$13,848,609	(\$3,690,302)
Jun	\$10,673,612	\$18,798,616	(\$8,125,004)
Jul	\$14,327,987	\$18,301,314	(\$3,973,327)
Aug	\$7,575,980	\$9,836,883	(\$2,260,904)
Sep	\$10,820,010	\$13,134,009	(\$2,313,999)
Oct	\$6,456,368	\$8,736,051	(\$2,279,683)
Nov	\$3,925,450	\$5,725,142	(\$1,799,692)
Total	\$86,835,138	\$117,614,540	(\$30,779,403)

**Table 3-58 Impact of segmented make whole payments:  
December 2008 through November 2010 (See 2009 SOM, Table  
3-74)**

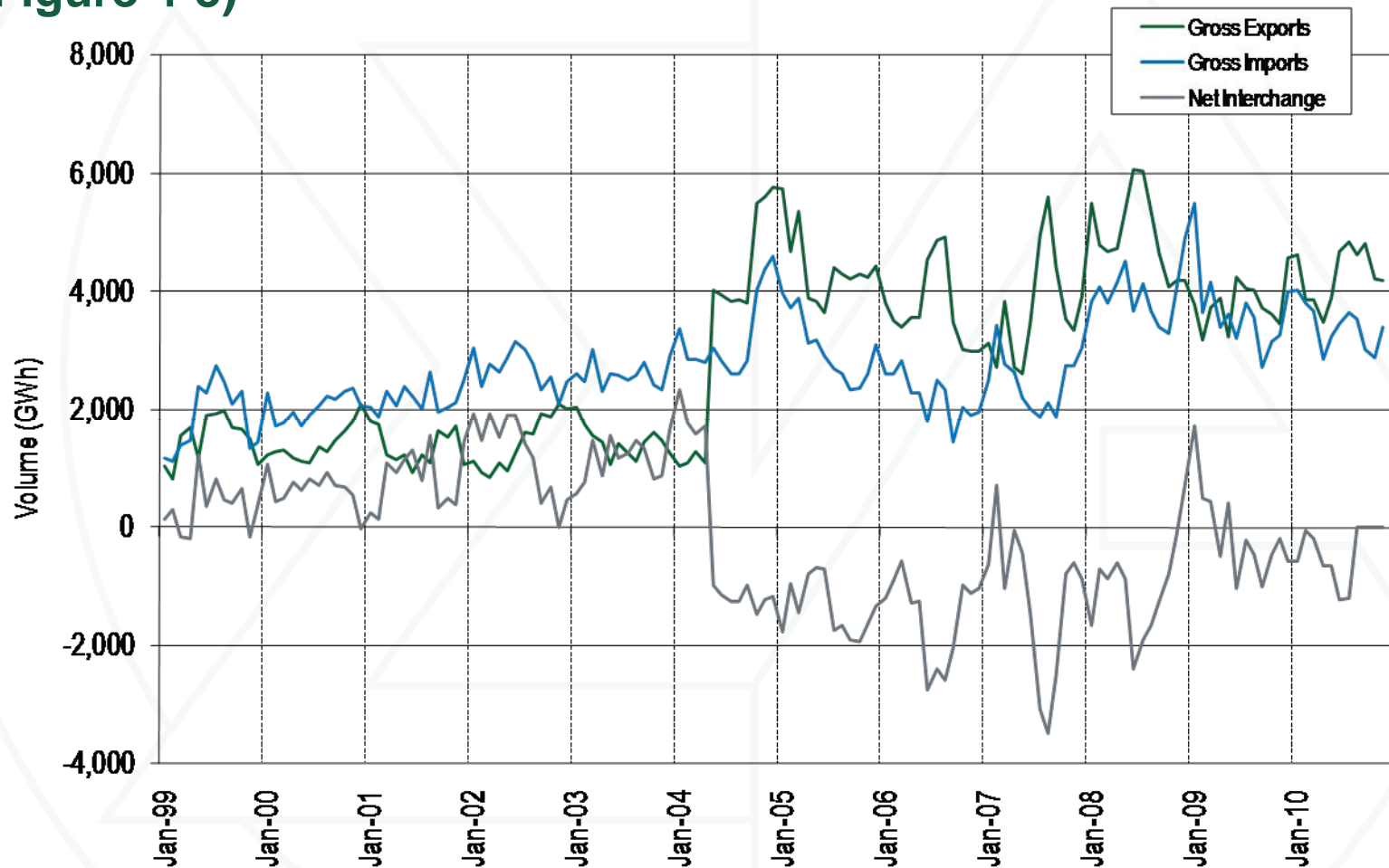
Year	Month	Balancing Credits	Balancing Credits	Difference
		Under Old Rules	Under New Rules	
2008	Dec	\$17,879,706	\$18,564,627	\$684,920
2009	Jan	\$24,958,891	\$26,413,119	\$1,454,228
2009	Feb	\$13,834,755	\$14,391,550	\$556,795
2009	Mar	\$21,434,893	\$22,200,141	\$765,248
2009	Apr	\$10,532,594	\$10,741,260	\$208,666
2009	May	\$13,499,668	\$13,813,209	\$313,541
2009	Jun	\$15,111,383	\$16,058,545	\$947,162
2009	Jul	\$14,657,498	\$15,414,023	\$756,525
2009	Aug	\$14,467,711	\$15,602,754	\$1,135,043
2009	Sep	\$10,293,949	\$10,576,618	\$282,669
2009	Oct	\$14,337,978	\$14,605,878	\$267,900
2009	Nov	\$8,889,163	\$9,091,845	\$202,682
2009	Dec	\$19,403,859	\$20,002,885	\$599,026
2010	Jan	\$32,982,105	\$33,924,489	\$942,385
2010	Feb	\$17,321,317	\$17,609,133	\$287,815
2010	Mar	\$13,458,120	\$13,672,172	\$214,052
2010	Apr	\$16,441,644	\$17,036,058	\$594,414
2010	May	\$21,854,306	\$23,455,721	\$1,601,415
2010	Jun	\$36,297,521	\$38,885,349	\$2,587,828
2010	Jul	\$32,251,623	\$37,053,630	\$4,802,007
2010	Aug	\$21,867,024	\$24,335,171	\$2,468,147
2010	Sep	\$24,293,196	\$25,686,790	\$1,393,593
2010	Oct	\$21,839,101	\$22,478,455	\$639,354
2010	Nov	\$15,795,391	\$16,238,383	\$442,991
Total		\$453,703,395	\$477,851,803	\$24,148,409

**Table 3-64 Top 10 units and organizations receiving total operating reserve credits: January through November 2010  
(See 2009 SOM, Table 3-81)**

Units				Organizations		
Rank	Total Credit	Total Credit Share	Total Credit Cumulative Distribution	Total Credit	Total Credit Share	Total Credit Cumulative Distribution
1	\$33,525,438	7.4%	7.4%	\$103,436,773	22.7%	22.7%
2	\$25,402,449	5.6%	13.0%	\$87,431,779	19.2%	42.0%
3	\$21,543,721	4.7%	17.7%	\$58,158,513	12.8%	54.7%
4	\$18,256,867	4.0%	21.7%	\$34,946,171	7.7%	62.4%
5	\$14,092,829	3.1%	24.8%	\$23,166,206	5.1%	67.5%
6	\$12,524,539	2.8%	27.6%	\$19,268,516	4.2%	71.7%
7	\$10,687,323	2.3%	29.9%	\$18,957,738	4.2%	75.9%
8	\$5,810,534	1.3%	31.2%	\$17,011,515	3.7%	79.7%
9	\$5,803,737	1.3%	32.5%	\$11,497,457	2.5%	82.2%
10	\$4,708,924	1.0%	33.5%	\$6,795,703	1.5%	83.7%

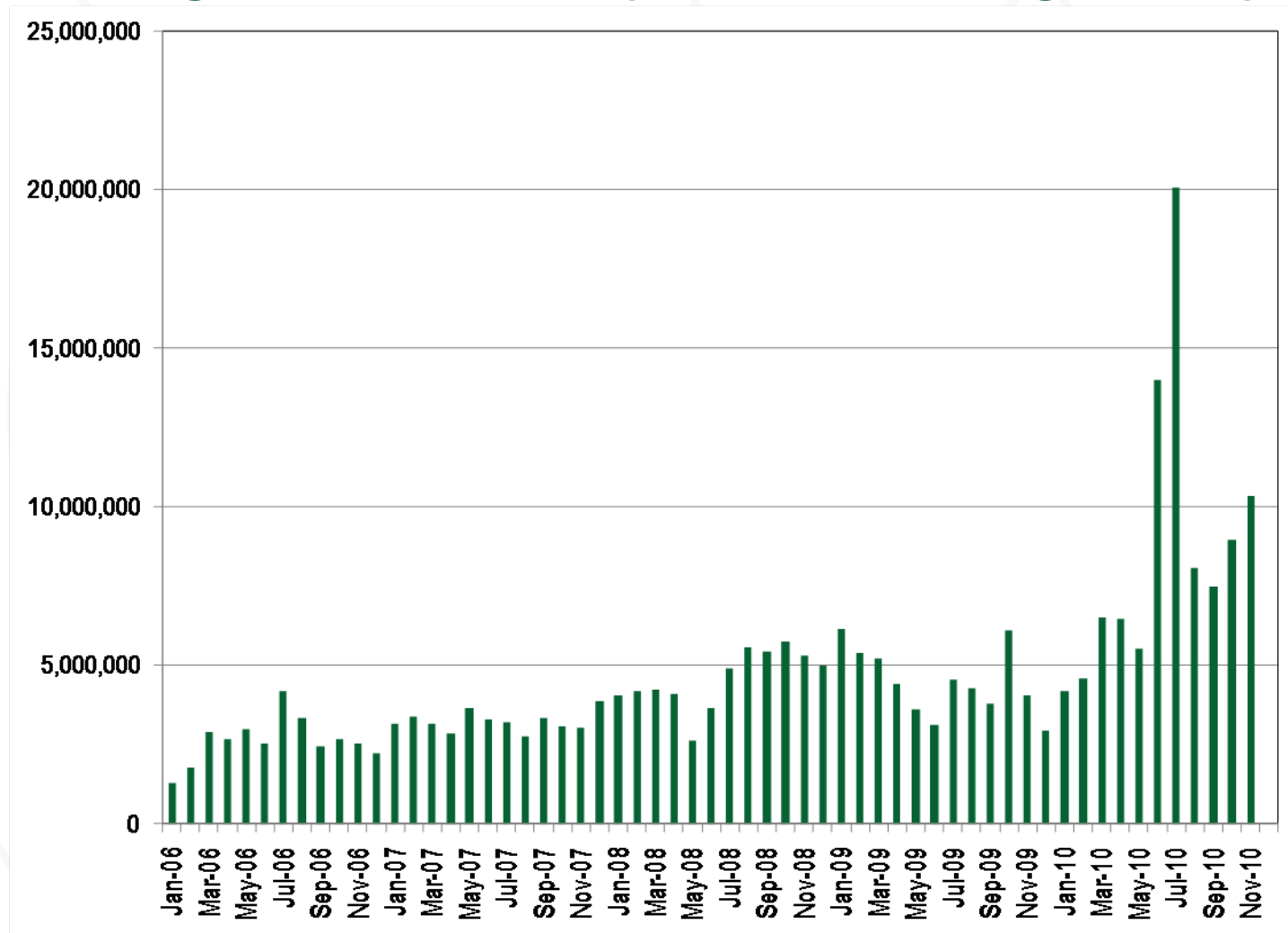


**Figure 4-3 PJM scheduled import and export transaction volume history: 1999 through November 2010 (See 2009 SOM, Figure 4-3)**

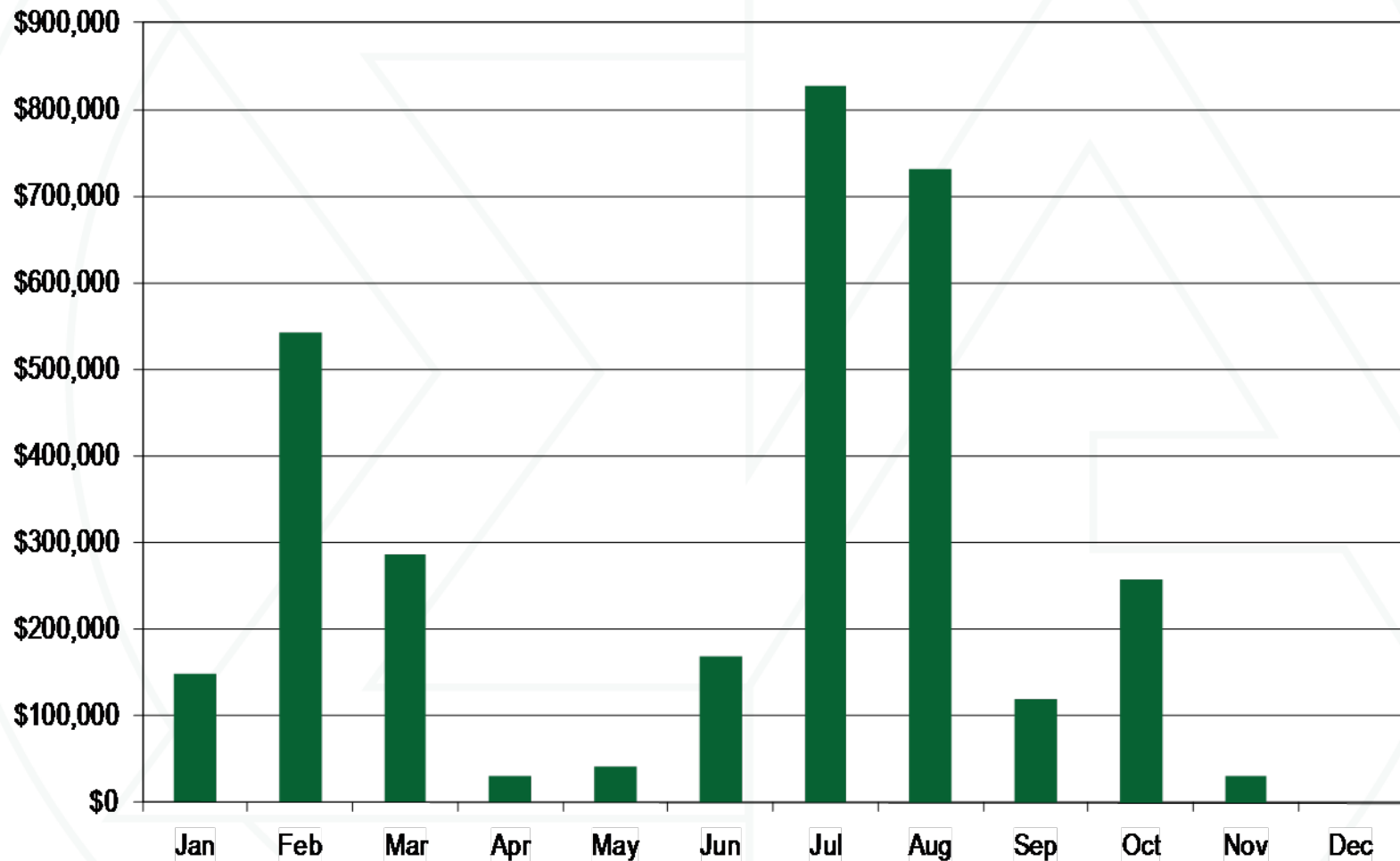




**Figure 4-23 Monthly up-to congestion bids in MWh: January 2006 through November 2010 (See 2009 SOM, Figure 4-23)**



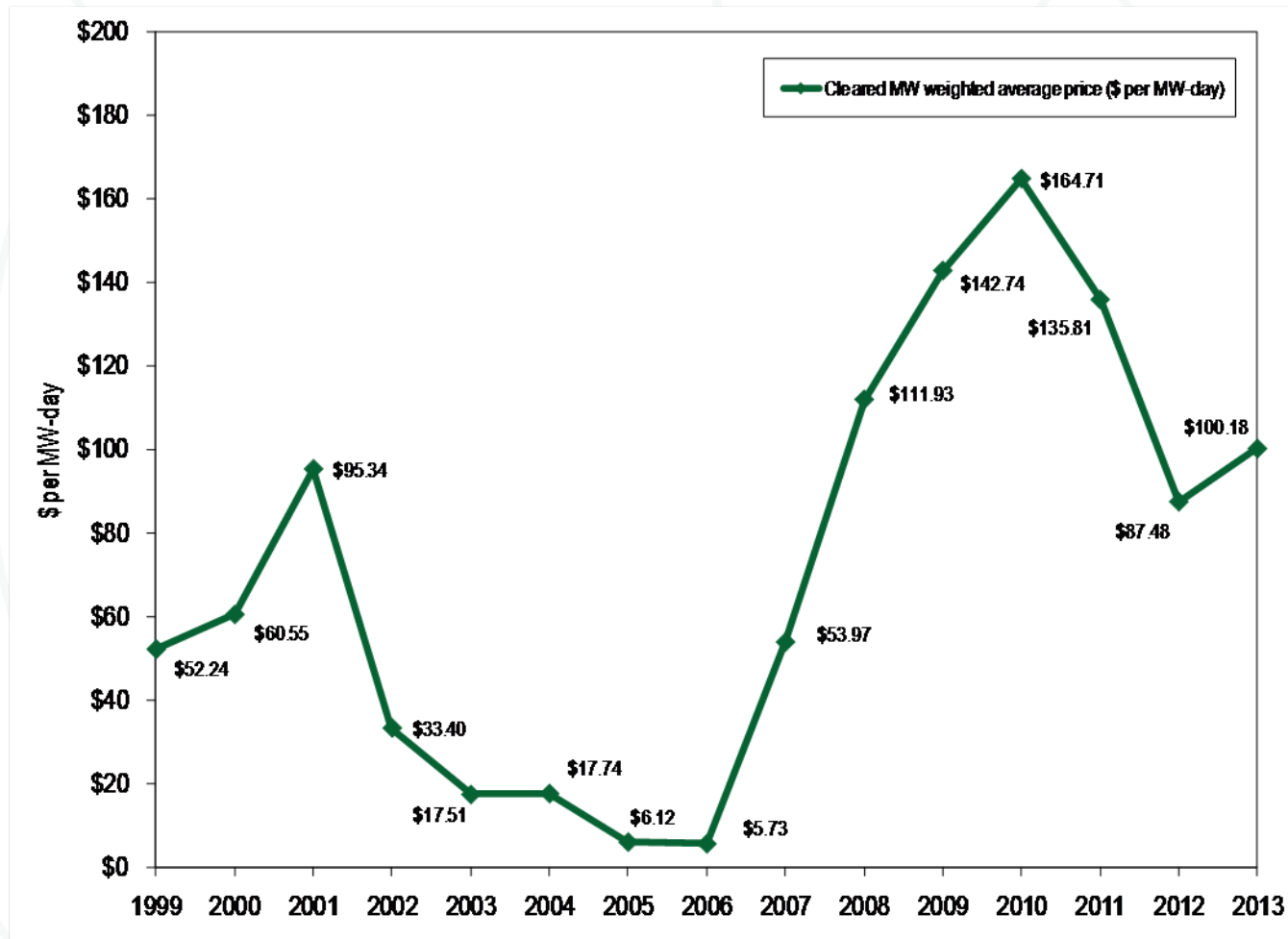
**Figure 4-31 Monthly uncollected congestion charges: January through November 2010 (See 2009 SOM, Figure 4-31)**



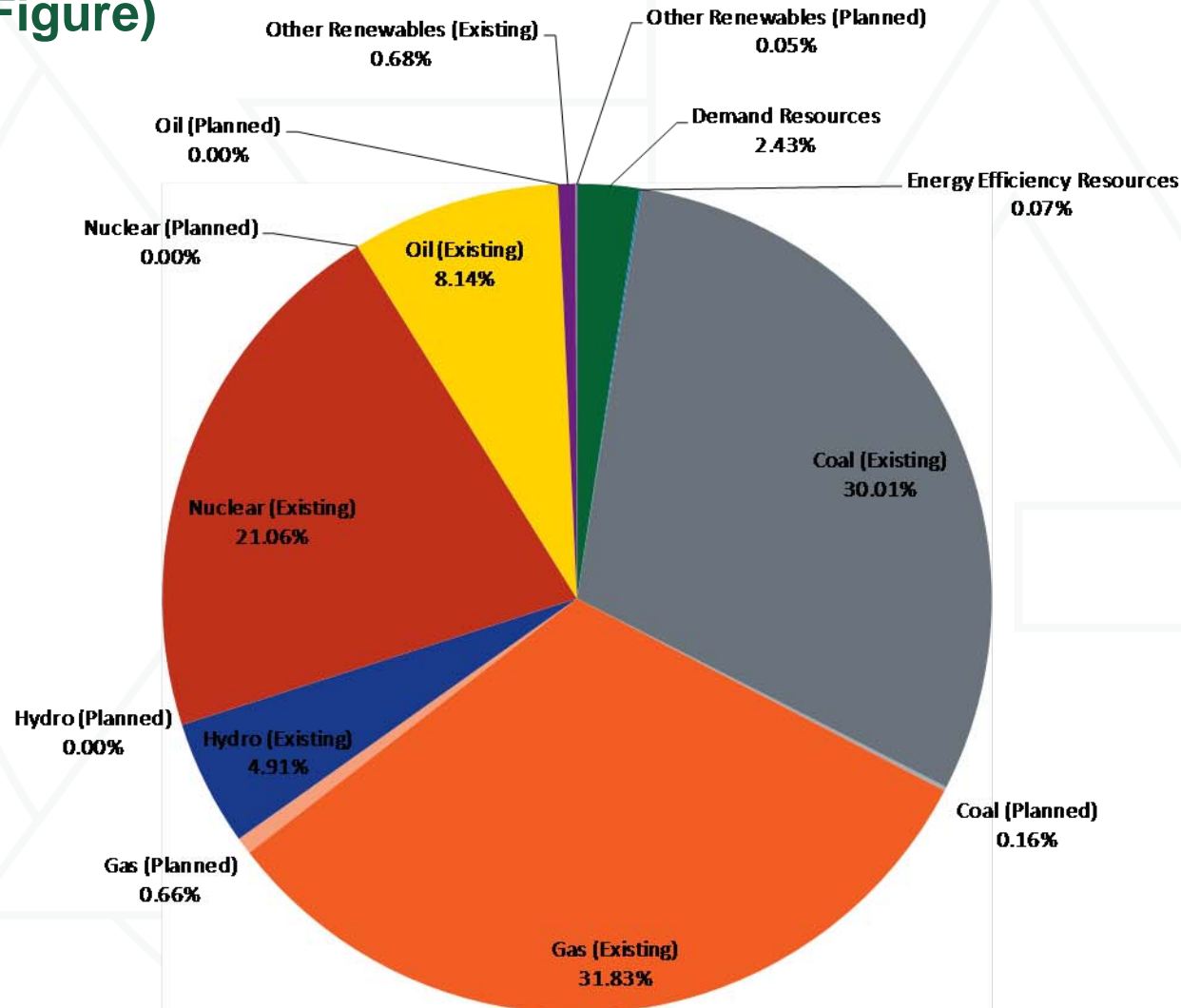
## Table 5-10 Capacity prices: 2007/2008 through 2013/2014 RPM Auctions (See 2009 SOM, Table 5-10)

	RPM Clearing Price (\$ per MW-day)							
	RTO	MAAC	APS	EMAAC	SWMAAC	DPL South	PSEG North	Pepco
2007/2008 BRA	\$40.80	\$40.80	\$40.80	\$197.67	\$188.54	\$197.67	\$197.67	\$188.54
<b>2008/2009 BRA</b>	<b>\$111.92</b>	<b>\$111.92</b>	<b>\$111.92</b>	<b>\$148.80</b>	<b>\$210.11</b>	<b>\$148.80</b>	<b>\$148.80</b>	<b>\$210.11</b>
2008/2009 Third IA	\$10.00	\$10.00	\$10.00	\$10.00	\$223.85	\$10.00	\$10.00	\$223.85
<b>2009/2010 BRA</b>	<b>\$102.04</b>	<b>\$191.32</b>	<b>\$191.32</b>	<b>\$191.32</b>	<b>\$237.33</b>	<b>\$191.32</b>	<b>\$191.32</b>	<b>\$237.33</b>
2009/2010 Third IA	\$40.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00
<b>2010/2011 BRA</b>	<b>\$174.29</b>	<b>\$174.29</b>	<b>\$174.29</b>	<b>\$174.29</b>	<b>\$174.29</b>	<b>\$186.12</b>	<b>\$174.29</b>	<b>\$174.29</b>
2010/2011 Third IA	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
<b>2011/2012 BRA</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$110.00</b>
2011/2012 First IA	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00
<b>2011/2012 ATSI FRR Integration Auction</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>	<b>\$108.89</b>
2012/2013 BRA	\$16.46	\$133.37	\$16.46	\$139.73	\$133.37	\$222.30	\$185.00	\$133.37
<b>2012/2013 ATSI FRR Integration Auction</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>	<b>\$20.46</b>
2012/2013 First IA	\$16.46	\$16.46	\$16.46	\$153.67	\$16.46	\$153.67	\$153.67	\$16.46
<b>2013/2014 BRA</b>	<b>\$27.73</b>	<b>\$226.15</b>	<b>\$27.73</b>	<b>\$245.00</b>	<b>\$226.15</b>	<b>\$245.00</b>	<b>\$245.00</b>	<b>\$247.14</b>

**Figure 5-1 History of capacity prices: Calendar year 1999 through 2013 (See 2009 SOM, Figure 5-1)**



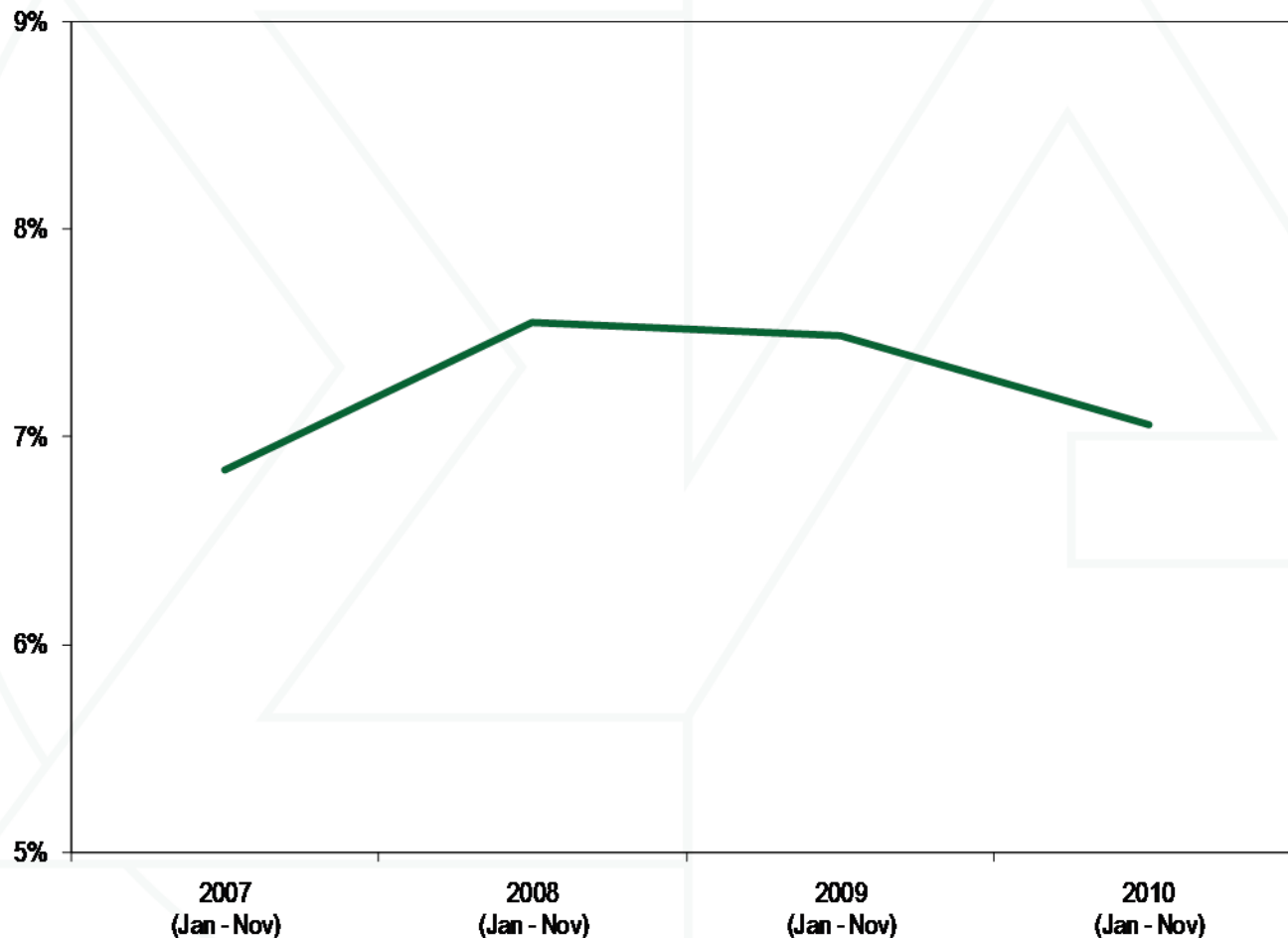
## Total RPM Revenues by Fuel Type and Planned/Existing for all auctions from the 2007/2008 BRA through the 2013/2014 BRA (New Figure)



# Total RPM revenues: notes

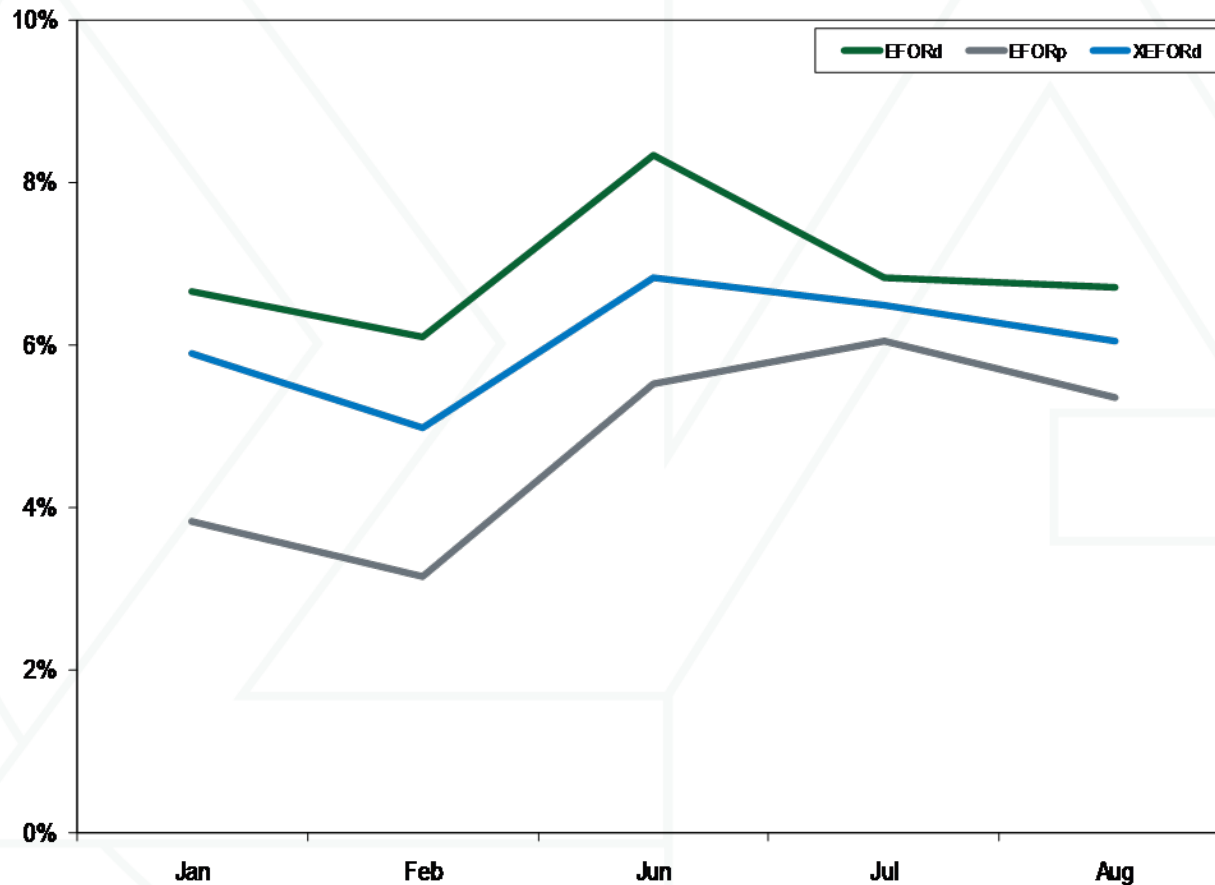
- **All RPM revenues for all auctions for the 2007/2008 Delivery Year through the 2013/2014 Delivery Year**
  - **Total revenue = \$42.1 billion**
- **Planned resources are new units that did not previously exist**
- **Existing resources are existing units and any modifications to existing resources**
- **DR resources are demand side capacity resources.**
- **EE resources are energy efficiency resources.**

**Figure 5-4 Trends in the PJM equivalent demand forced outage rate (EFORd): 2007 to 2010 (January through November) (See 2009 SOM, Figure 5-8)**





**Figure 5-8 PJM EFORd, XEFORd and EFORp for the peak months of January, February, June, July and August: 2010**  
(See 2009 SOM, Figure 5-12)



**Table 6-8 Comparison of load weighted price and cost for PJM Regulation, August 2005 through November 2010 (New Table)**

<b>Year</b>	<b>Load Weighted Regulation Market Price</b>	<b>Load Weighted Regulation Market Cost</b>	<b>Regulation Price as Percent of Cost</b>
2005	\$64.03	\$77.39	83%
<b>2006</b>	<b>\$32.69</b>	<b>\$44.98</b>	<b>73%</b>
2007	\$36.86	\$52.91	70%
<b>2008</b>	<b>\$42.09</b>	<b>\$64.43</b>	<b>65%</b>
2009	\$23.56	\$29.87	79%
<b>2010 (Jan-Nov)</b>	<b>\$18.08</b>	<b>\$33.92</b>	<b>53%</b>

**Table 6-13 Comparison of load weighted price and cost for PJM Synchronized Reserve, January 2005 through November 2010 (New Table)**

<b>Year</b>	<b>Load Weighted Synchronized Reserve Market Price</b>	<b>Load Weighted Synchronized Reserve Cost</b>	<b>Synchronized Reserve Price as Percent of Cost</b>
2005	\$13.29	\$17.59	76%
2006	\$14.57	\$21.65	67%
2007	\$11.22	\$16.26	69%
2008	\$10.65	\$16.43	65%
2009	\$7.75	\$9.77	79%
2010 (Jan - Nov)	\$11.19	\$15.74	71%

**Table 7-1 Total annual PJM congestion (Dollars (Millions)):  
Calendar years 2003 through November 2010 (See 2009 SOM,  
Table 7-1)**

	<b>Congestion Charges</b>	<b>Percent Change</b>	<b>Total PJM Billing</b>	<b>Percent of PJM Billing</b>
2003	\$464	NA	\$6,900	7%
2004	<b>\$750</b>	<b>62%</b>	<b>\$8,700</b>	<b>9%</b>
2005	\$2,092	179%	\$22,630	9%
2006	<b>\$1,603</b>	<b>(23%)</b>	<b>\$20,945</b>	<b>8%</b>
2007	\$1,846	15%	\$30,556	6%
2008	<b>\$2,117</b>	<b>15%</b>	<b>\$34,306</b>	<b>6%</b>
2009	\$719	(66%)	\$26,550	3%
2010 (Jan - Nov)	<b>\$1,247</b>	<b>NA</b>		
Total	\$10,838			

**Table 7-2 Total annual PJM congestion costs by category (Dollars (Millions)): January through November 2009 and 2010 (See 2009 SOM, Table 7-2)**

Congestion Costs (Millions)				
Year	Load Payments	Generation Credits	Explicit	Total
2009 (Jan - Nov)	\$233.9	(\$439.4)	(\$50.8)	\$622.6
2010 (Jan - Nov)	\$334.5	(\$971.0)	(\$58.1)	\$1,247.5

## Key New Legal / Regulatory Matters

- **Must Offer (Docket No. ER11-2287-000)**
- **DR Saturation (Docket No. ER11-2288-000)**

