State of the PJM Market January through February, 2010

PJM Members Committee May 6, 2009 Joseph Bowring





Table 1-1 Total price per MWh: January through February 2010

Category	\$/MWh	Percent
Load Weighted Energy	\$50.00	75.6%
Capacity	\$10.42	15.7%
Transmission Service Charges	\$3.66	5.5%
Operating Reserves (Uplift)	\$0.70	1.1%
Reactive	\$0.38	0.6%
Regulation	\$0.37	0.6%
PJM Administrative Fees	\$0.34	0.5%
Transmission Enhancement Cost Recovery	\$0.12	0.2%
Transmssion Owner (Schedule 1A)	\$0.08	0.1%
Synchronized Reserves	\$0.05	0.1%
Black Start	\$0.02	0.0%
RTO Startup and Expansion	\$0.01	0.0%
NERC/RFC	\$0.01	0.0%
Load Response	\$0.01	0.0%
Transmission Facility Charges	\$0.00	0.0%
Total	\$66.17	100.0%





Figure 2-1 Average PJM aggregate supply curves: January and February 2009 and 2010

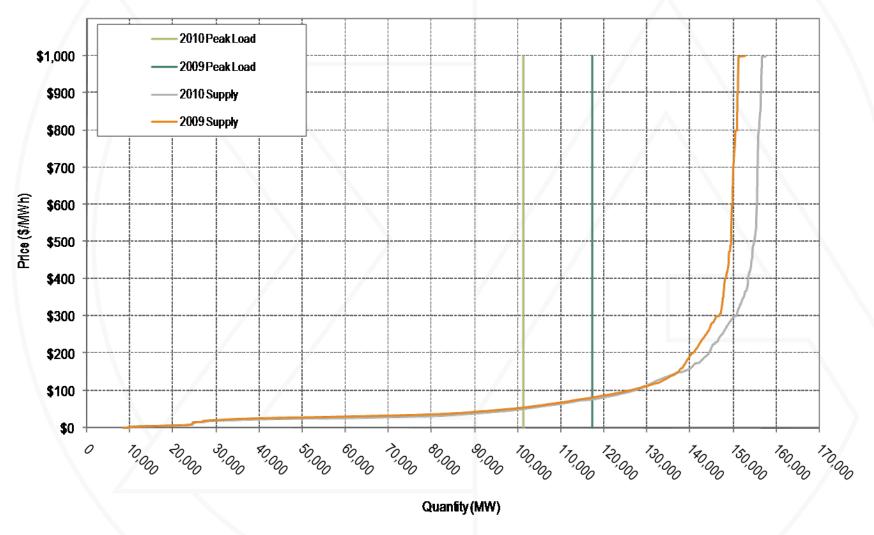




Figure 2-3 PJM peak-load comparison: Jan-Feb Peak 2009 vs.



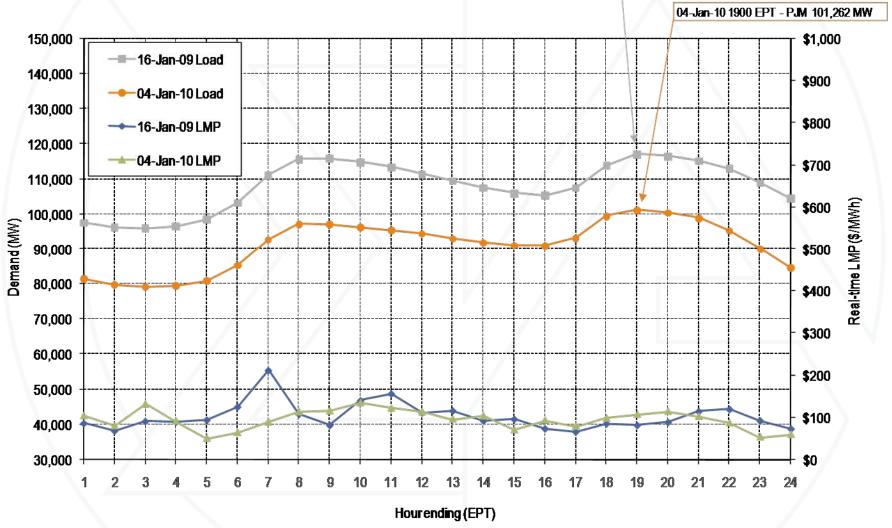




Table 2-4 Annual offer-capping statistics: Calendar years 2005 to February 2010

	Real Tir	Day Ahead		
\ 	Unit Hours	MW	Unit Hours	MW
	Capped	Capped	Capped	Capped
2005	1.8%	0.4%	0.2%	0.1%
2006	1.0%	0.2%	0.4%	0.1%
2007	1.1%	0.2%	0.2%	0.0%
2008	1.0%	0.2%	0.2%	0.1%
2009	0.4%	0.1%	0.1%	0.0%
2010	0.5%	0.1%	0.2%	0.0%



Table 2-5 Offer-capped unit statistics: January through February 2010

2009 Offer-Capped Hours						
Run Hours Offer-Capped, Percent Greater Than Or Equal To:	Hours ≥ 500	Hours ≥ 400 and < 500	Hours ≥ 300 and < 400	Hours ≥ 200 and < 300	Hours ≥ 100 and < 200	Hours ≥ 1 and < 100
90%	0	0	0	0	1	30
80% and < 90%	0	0	0	0	0	10
75% and < 80%	0	0	0	0	0	4
70% and < 75%	0	0	1	0	0	2
60% and < 70%	0	0	0	1	0	13
50% and < 60%	0	0	0	0	0	22
25% and < 50%	0	0	0	0	0	21
10% and < 25%	0	0	0	0	0	24



Table 2-33 Type of fuel used (By real-time marginal units): January through February 2010

Fuel Type	2010
Coal	68%
Natural Gas	27%
Wind	3%
Petroleum	1%
Landfill Gas	1%
Misc	0%



Table 2-47 Frequently mitigated units and associated units (By month): January through February 2010

	FMU	s and A	Total Eli	gible	
	Tier 1	Tier 2	Tier 3	for Any A	dder
January	35	31	27		93
February	35	28	31		94



Table 2-49 PJM real-time average load: Calendar years 1998 to February 2010

	PJM Real-Time Load (MWh)			Yea	Year-to-Year Change		
	Avorago	Median	Standard Deviation	Avorago	Median	Standard Deviation	
4000	Average			<u> </u>			
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%)	
2007	81,681	80,914	14,618	2.8%	3.1%	0.6%	
2008	79,515	78,481	13,758	(2.7%)	(3.0%)	(5.9%)	
2009	76,035	75,471	13,260	(4.4%)	(3.8%)	(3.6%)	
2010	85,619	86,054	8,900	12.6%	14.0%	(32.9%)	



Figure 2-8 PJM real-time average load: Calendar years 2008 through February, 2010

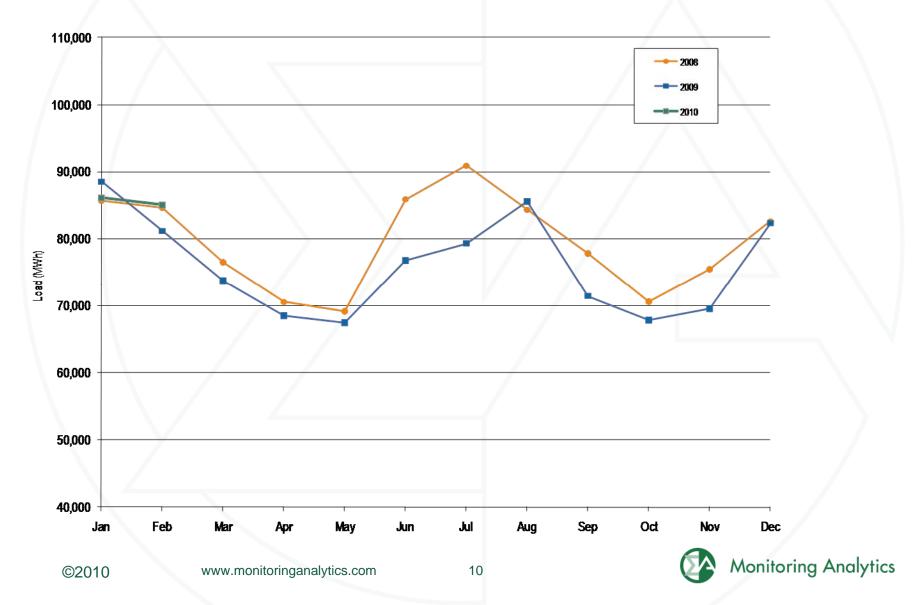




Table 2-59 PJM real-time, annual, load-weighted, average LMP (Dollars per MWh): Calendar years 1998 through February 2010

	Real-Time, Load	-Weighted, A	•	Year-to	o-Year Chan	
	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	41.0%	8.1%	132.8%
2000	\$30.72	\$20.51	\$28.38	(9.8%)	7.9%	(69.0%)
2001	\$36.65	\$25.08	\$57.26	19.3%	22.3%	101.8%
2002	\$31.60	\$23.40	\$26.75	(13.8%)	(6.7%)	(53.3%)
2003	\$41.23	\$34.96	\$25.40	30.5%	49.4%	(5.0%)
2004	\$44.34	\$40.16	\$21.25	7.5%	14.9%	(16.3%)
2005	\$63.46	\$52.93	\$38.10	43.1%	31.8%	79.3%
2006	\$53.35	\$44.40	\$37.81	(15.9%)	(16.1%)	(0.7%)
2007	\$61.66	\$54.66	\$36.94	15.6%	23.1%	(2.3%)
2008	\$71.13	\$59.54	\$40.97	15.4%	8.9%	10.9%
2009	\$39.05	\$34.23	\$18.21	(45.1%)	(42.5%)	(55.6%)
2010	\$50.00	\$41.74	\$25.08	28.0%	21.9%	37.7%

Figure 2-14 PJM real-time, monthly, load-weighted, average LMP: Calendar years 2005 through February 2010

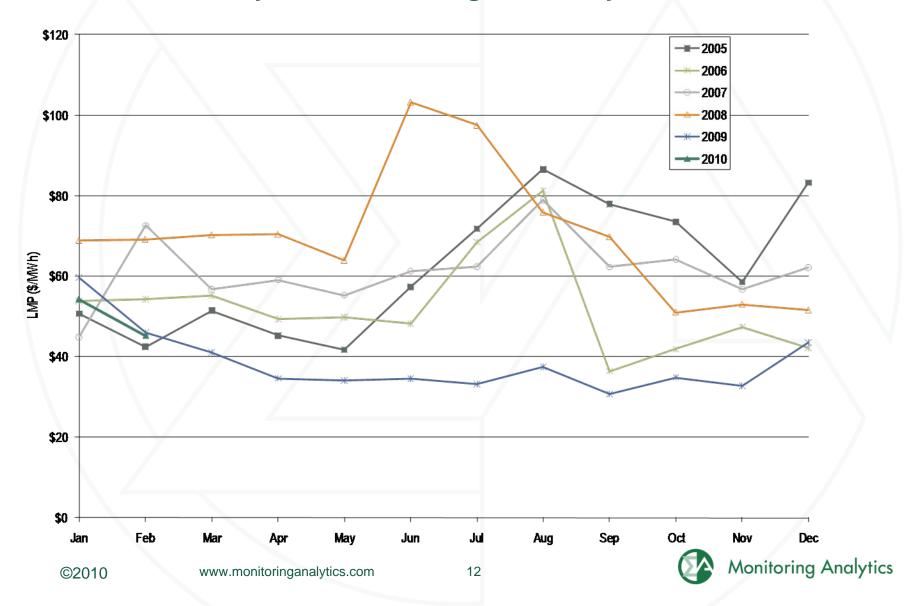




Figure 2-15 Spot average fuel price comparison: Calendar years 2008 through February 2010

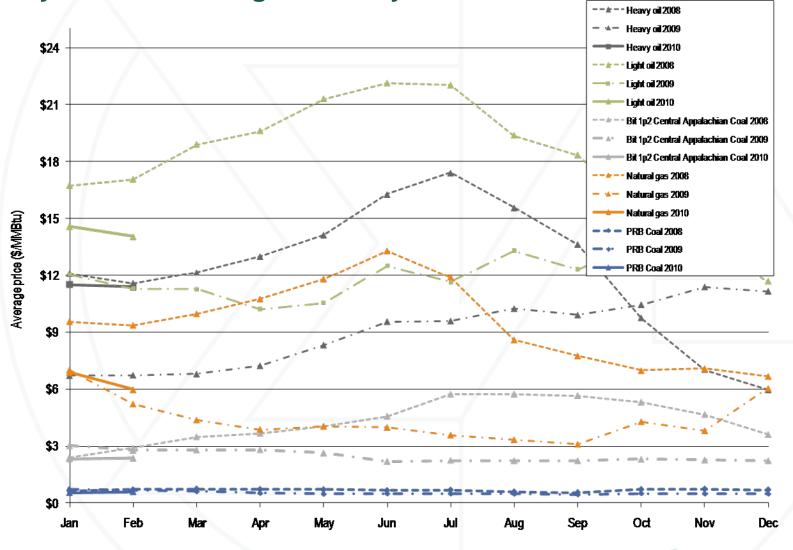




Figure 2-16 Spot average emission price comparison: Calendar years 2008 through February 2010

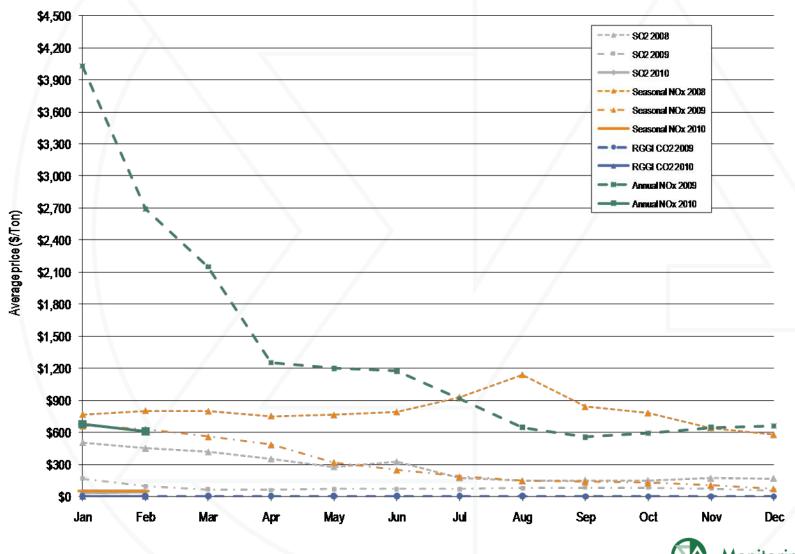




Table 2-63 PJM fuel-cost-adjusted, load-weighted LMP (Dollars per MWh): Year-over-year method: January through February 2009 and 2010

	2009 Load-Weighted LMP	2010 Fuel-Cost-Adjusted, Load-Weighted LMP	Change
Average	\$53.46	\$30.87	(42.3%)



Table 2-64 Components of PJM real-time, annual, load-weighted, average LMP: January through February 2010

Element	Contribution to LMP	Percent
Coal	\$21.32	42.6%
Gas	\$20.64	41.3%
10% Cost Adder	\$4.56	9.1%
VOM	\$2.53	5.1%
Oil	\$0.51	1.0%
CO2	\$0.48	1.0%
SO2	\$0.29	0.6%
Dispatch Differential	\$0.15	0.3%
NA	\$0.09	0.2%
Shadow Price Limit Adder	\$0.04	0.1%
FMU Adder	\$0.02	0.0%
M2M Adder	\$0.01	0.0%
Municipal Waste	\$0.00	0.0%
UDS Override Differential	(\$0.21)	(0.4%)
Markup	(\$0.43)	(0.9%)
LMP	\$50.00	100.0%

2 Section

Table 2-82 Monthly volume of cleared and submitted INCs, DECs: January through February 2010

	i	ncrement Offers				Decrement Bids		
	Average Cleared MW	Average Submitted MW	Average Cleared Volume	Average Submitted Volume	Average Cleared MW	Average Submitted MW	Average Cleared Volume	Average Submitted Volume
Jan	11,144	21,634	282	936	266	893	17,513	29,406
Feb	12,387	23,827	387	1,122	270	883	17,602	28,542
Mar								
Арг								
May								
Jun								
Jul								
Aug								
Sep								
Oct								
Nov								
Dec								
Annual	11,766	22,731	335	1,029	268	888	17,558	28,974



Table 2-84 PJM virtual bids by type of bid parent organization (MW): January through February 2010

	Category	Total Virtual Bids MW	Percentage
2010	Financial	18,458,529	30.6%
2010	Physical	41,887,904	69.4%
2010	Total	60,346,433	100%



Table 2-85 PJM virtual bids by top ten locations (MW): January through February 2010

Aggregate Name	Aggregate Type	INC MW	DEC MW	Total MW
WESTERN HUB	HUB	8,853,275	12,246,504	21,099,779
N ILLINOIS HUB	HUB	1,329,757	1,285,013	2,614,770
AEP-DAYTON HUB	HUB	969,478	1,152,108	2,121,586
PPL	ZONE	107,146	1,491,382	1,598,528
PSEG	ZONE	159,217	1,021,437	1,180,654
BGE	ZONE	195,337	854,812	1,050,149
IMO	INTERFACE	537,602	382,620	920,222
MISO	INTERFACE	207,985	475,443	683,428
JCPL	ZONE	164,783	398,865	563,648
PEPCO	ZONE	317,777	235,337	553,114



Figure 2-19 PJM day-ahead aggregate supply curves: 2010 example day

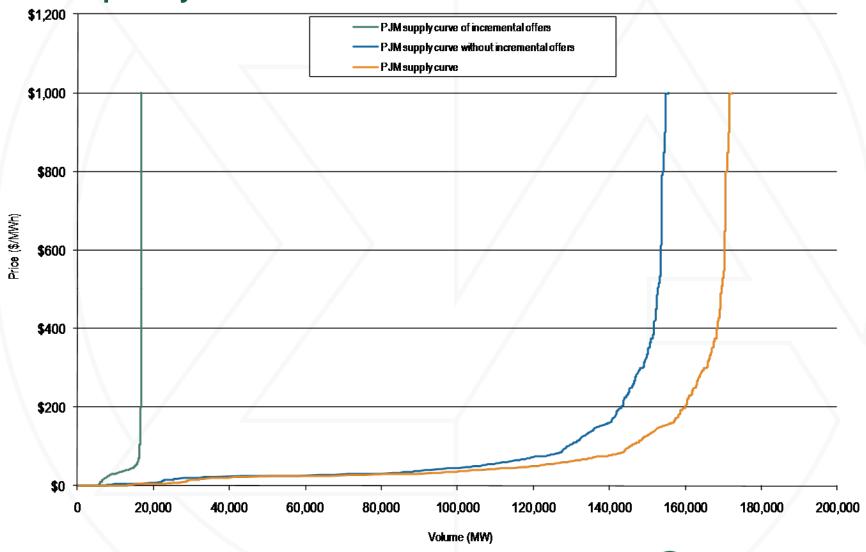




Table 2-87 Day-ahead and real-time simple annual average LMP (Dollars per MWh): Calendar years 2000 through February 2010

				Difference as Percent
	Day Ahead	Real Time	Difference	Real Time
2000	\$31.97	\$30.36	(\$1.61)	(5.3%)
2001	\$32.75	\$32.38	(\$0.37)	(1.1%)
2002	\$28.46	\$28.30	(\$0.16)	(0.6%)
2003	\$38.73	\$38.28	(\$0.45)	(1.2%)
2004	\$41.43	\$42.40	\$0.97	2.3%
2005	\$57.89	\$58.08	\$0.18	0.3%
2006	\$48.10	\$49.27	\$1.17	2.4%
2007	\$54.67	\$57.58	\$2.90	5.0%
2008	\$66.12	\$66.40	\$0.28	0.4%
2009	\$37.00	\$37.08	\$0.08	0.2%
2010	\$51.21	\$48.49	(\$2.72)	(5.6%)



Table 2-91 Monthly average percentage of real-time self-supply load, bilateral-supply load and spot-supply load based on parent companies: Calendar year 2009 through February 2010

		2009			2010		Difference in	Percenta	ge Points
	Bilateral		Self-	Bilateral		Self-	Bilateral		Self-
	Contract	Spot	Supply	Contract	Spot	Supply	Contract	Spot	Supply
Jan	12.6%	15.4%	72.0%	11.9%	19.5%	68.6%	(0.8%)	4.2%	(3.4%)
Feb	13.4%	14.5%	72.1%	13.3%	19.5%	67.2%	(0.1%)	5.0%	(4.9%)
Mar	13.8%	16.7%	69.5%						
Apr	13.5%	17.2%	69.3%						
May	14.6%	18.8%	66.7%						
Jun	12.5%	16.5%	71.0%						
Jul	12.6%	16.9%	70.5%						
Aug	11.7%	16.0%	72.3%						
Sep	12.5%	18.1%	69.4%						
Oct	13.0%	19.8%	67.2%						
Nov	13.2%	19.0%	67.8%						
Dec	11.7%	16.8%	71.5%						
Annual	12.9%	17.0%	70.1%	12.5%	19.5%	67.9%	(0.3%)	2.5%	(2.2%)



Table 2-107 Demand Response (DR) offered and cleared in RPM Base Residual Auction: Delivery years 2007/2008 through 2012/2013

Planning Year	DR Offered	in BRA	DR Cle	ared in BRA
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		6,824.3



Table 3-36 PJM installed capacity (By fuel source): January 1 2009, May 31 2009, June 1 2009, December 31 2009, January 1, 2010, and February 28, 2010

	1-Jan-0	9	31-May-	09	1-Jun-0	9	31-Dec-	09	1-Jan-1	0	28-Feb-	10
	MW	Percent										
Coal	67,064.7	40.7%	67,025.3	40.6%	68,159.0	40.7%	68,137.1	40.7%	68,382.1	40.7%	68,273.2	40.7%
Gas	48,333.9	29.3%	48,506.9	29.4%	48,979.3	29.2%	48,838.8	29.2%	49,238.8	29.3%	49,234.0	29.4%
Hydroelectric	7,476.3	4.5%	7,550.1	4.6%	7,939.9	4.7%	7,939.9	4.7%	7,921.9	4.7%	7,897.9	4.7%
Nuclear	30,478.0	18.5%	30,542.5	18.5%	30,701.5	18.3%	30,731.5	18.4%	30,611.9	18.2%	30,599.9	18.2%
Oil	10,714.9	6.5%	10,674.3	6.5%	10,704.3	6.4%	10,700.1	6.4%	10,700.1	6.4%	10,699.0	6.4%
Solid waste	664.7	0.4%	664.7	0.4%	672.1	0.4%	6721	0.4%	672.1	0.4%	672.1	0.4%
Wind	166.4	0.1%	182.9	0.1%	297.8	0.2%	306.9	0.2%	326.9	0.2%	338.9	0.2%
Total	164,898.9	100.0%	165,146.7	100.0%	167,453.9	100.0%	167,326.4	100.0%	167,853.8	100.0%	167,715.0	100.0%



Table 3-37 PJM generation (By fuel source (GWh)): January through February 2010

		GWh	Percent
Coal		68,171.0	54.6%
Nudear		42,480.4	34.0%
Gas		8,856.5	7.1%
	Natural Gas	8,606.3	6.9%
	Landfill Gas	250.1	0.2%
	Biomass Gas	0.1	0.0%
Hydroele	ectric	2,737.3	22%
Waste		810.3	0.6%
	Solid Waste	594.5	0.5%
N	/liscellaneous	215.8	0.2%
Wind		1,620.6	1.3%
Oil		86.6	0.1%
	Heavy Oil	62.1	0.0%
	Light Oil	20.9	0.0%
	Diesel	3.4	0.0%
	Kerosene	0.2	0.0%
	Jet Oil	0.0	0.0%
Solar		0.5	0.0%
Battery		0.1	0.0%
Total		124,763.1	100.0%



Table 3-47 Capacity factor of wind units in PJM: January through February 2010

Type of Resource	Capacity Factor	Total Hours	Installed Capacity
Energy-Only Resource	26.5%	19,824	940
Capacity Resource	36.0%	37,464	2,418
All Units	33.2%	57,288	3,543



Table 3-48 Wind resources in real time offering at a negative price in PJM: January through February 2010

	Average MW Offered	Intervals Marginal	Percent of Intervals
At Negative Price	481.0	236	1.39%
All Wind	1,309.0	397	2.34%



Table 3-50 Peak and off-peak seasonal capacity factor, average wind generation, and PJM load: January through February 2010

		Winter	Spring	Summer	Fall	Annual
Peak	Capacity Factor	33.3%				33.3%
	Average Wind Generation	1,086.7				1,086.7
	Average Load	91,305.2				91,305.2
Off-Peak	Capacity Factor	33.1%				33.1%
	Average Wind Generation	1,078.9				1,078.9
	Average Load	80,380.7				80,380.7



Table 3-54 Monthly operating reserve charges: Calendar years 2009 and 2010

		2009 Chai	rges			2010 Char	ges	
		Synchronous				Synchronous		
	Day-Ahead	Condensing	Balancing	Total	Day-Ahead	Condensing	Balancing	Total
Jan	\$9,260,150	\$1,328,814	\$30,116,725	\$40,705,689	\$10,281,351	\$50,022	\$40,308,020	\$50,639,393
Feb	\$7,434,068	\$839,679	\$16,548,988	\$24,822,735	\$11,425,494	\$14,715	\$22,365,749	\$33,805,958
Mar	\$9,549,963	\$108,664	\$26,025,562	\$35,684,189	\$0	\$0	\$0	\$0
Apr	\$6,998,364	\$19,929	\$13,251,273	\$20,269,566	\$0	\$0	\$0	\$0
May	\$6,024,108	\$5,543	\$15,490,257	\$21,519,908	\$0	\$0	\$0	\$0
Jun	\$6,722,329	\$0	\$19,339,846	\$26,062,175	\$0	\$0	\$0	\$0
Jul	\$8,210,636	\$38,643	\$17,728,976	\$25,978,255	\$0	\$0	\$0	\$0
Aug	\$7,697,174	\$1	\$21,164,586	\$28,861,761	\$0	\$0	\$0	\$0
Sep	\$6,057,598	\$13,611	\$13,471,368	\$19,542,577	\$0	\$0	\$0	\$0
Oct	\$7,046,301	\$0	\$17,026,425	\$24,072,727	\$ 0	\$0	\$0	\$0
Nov	\$8,617,280	\$22,639	\$12,888,600	\$21,528,519	\$0	\$0	\$0	\$0
Dec	\$11,323,263	\$117,573	\$25,353,409	\$36,794,245	\$0	\$0	\$0	\$0
Total	\$94,941,235	\$2,495,097	\$228,406,015	\$325,842,346	\$21,706,845	\$64,737	\$62,673,769	\$84,445,351
Share of Annual Charges	29.1%	0.8%	70.1%	100.0%	25.7%	0.1%	74.2%	100.0%



Table 3-55 Regional balancing charges allocation: January through February 2010

	Reli	ability Charges		Deviation Charges				
	Real-Time	Real-Time	Reliability	Demand	Supply	Generator	Deviations	Total
	Load	Exports	Total	Deviations	Deviations	Deviations	Total	Total
RTO	\$9,281,436	\$350,921	\$9,632,357	\$18,226,284	\$11,423,189	\$5,495,056	\$35,144,528	\$44,776,885
NIO	18.3%	0.7%	19.0%	35.9%	22.5%	10.8%	69.3%	88.3%
East	\$225,949	\$9,197	\$235,146	\$997,178	\$824,578	\$241,115	\$2,062,872	\$2,298,018
⊏ası	0.4%	0.0%	0.5%	2.0%	1.6%	0.5%	4.1%	4.5%
West	\$2,514,769	\$86,881	\$2,601,650	\$561,407	\$279,560	\$196,368	\$1,037,334	\$3,638,985
VVESL	5.0%	0.2%	5.1%	1.1%	0.6%	0.4%	2.0%	7.2%
Total	\$12,022,154	\$446,999	\$12,469,153	\$19,784,869	\$12,527,326	\$5,932,539	\$38,244,734	\$50,713,888
TOTAL	23.7%	0.9%	24.6%	39.0%	24.7%	11.7%	75.4%	100%



Figure 3-14 Daily RTO reliability and deviation rates (\$/MWh): January through February 2010

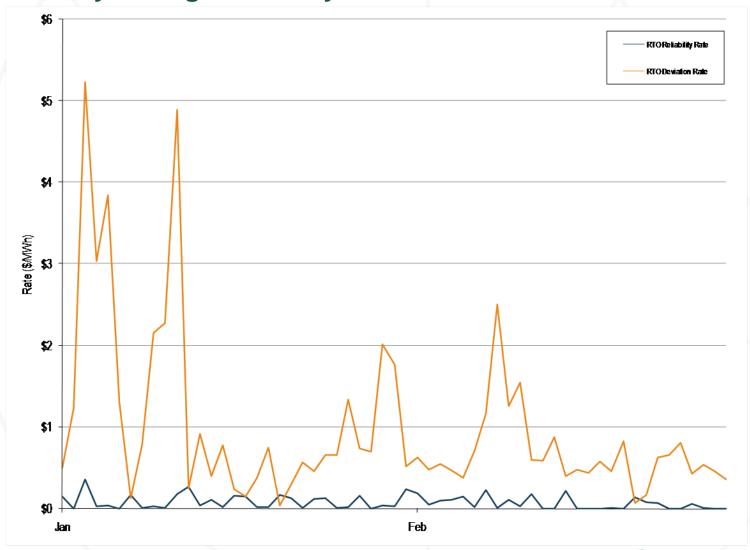




Figure 3-15 Daily regional reliability and deviation rates (\$/MWh): January through February 2010

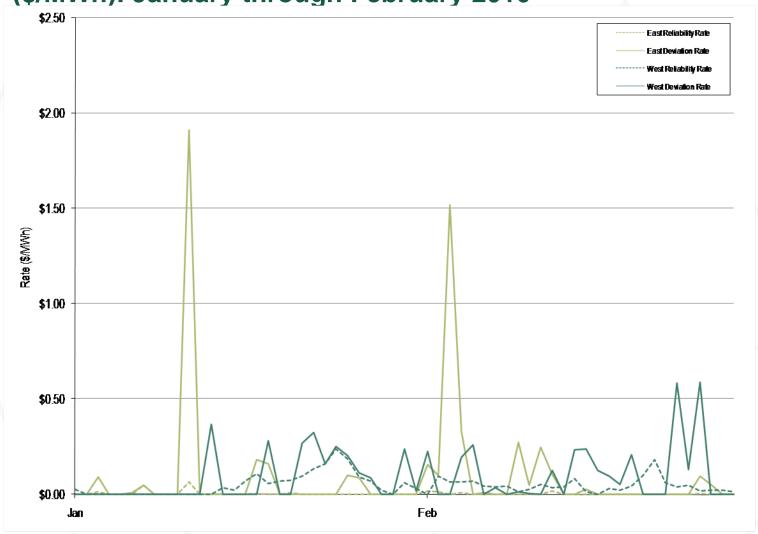






Figure 3-16 Operating reserve credits: January through February 2010

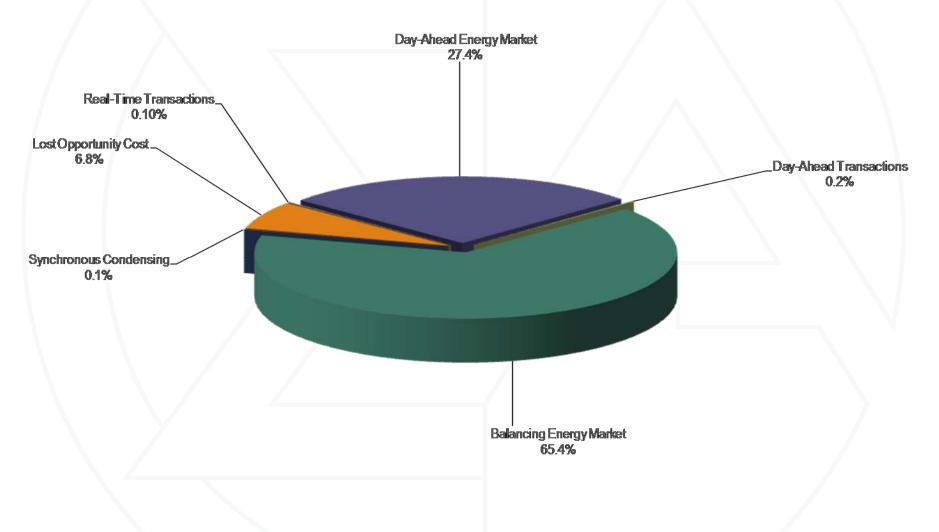






Table 3-60 Credits by operating reserve market (By unit type): January through February 2010

	Day-Ahead	Synchronous	Balancing	Lost Opportunity	
Unit Type	Generator	Condensing	Generator	Cost	Total
Combined Cycle	37.9%	0.0%	60.5%	1.6%	\$43,425,348
Combustion Turbine	0.3%	0.5%	95.1%	4.1%	\$14,045,206
Diesel	0.0%	0.0%	96.7%	3.3%	\$32,852
Hydro	0.0%	0.0%	100.0%	0.0%	\$3,539
Landfill	0.0%	0.0%	0.0%	100.0%	\$3,052,251
Nuclear	0.0%	0.0%	0.0%	0.0%	\$0
Steam	28.8%	0.0%	67.2%	4.1%	\$17,583,496
Wind Farm	0.0%	0.0%	2.8%	97.2%	\$286,658



Table 3-70 Difference in total charges between old rules and new rules: January through February 2010

	Re	Deviation Charges					
	Real-Time Real-Time Reliability			Demand	Injection	Generator	Deviations
	Load	Exports	Total	Deviations	Deviations	Deviations	Total
Charges (Old)	\$0	\$0	\$0	\$26,047,110	\$16,801,829	\$7,864,949	\$50,713,888
Charges (Current)	\$12,022,154	\$446,999	\$12,469,153	\$19,784,869	\$12,527,326	\$5,932,539	\$38,244,734
Difference	\$12,022,154	\$446,999	\$12,469,153	(\$6,262,241)	(\$4,274,502)	(\$1,932,410)	(\$12,469,153)



Table 3-71 Total virtual bids and amount of virtual bids paying balancing operating charges (MWh): January through February 2010

	Total	Total	Adjusted	Adjusted
	Increment	Decrement	Increment Offer	Decrement Bid
Month	Offers (MWh)	Bids (MWh)	Deviations (MWh)	Deviations (MWh)
Jan	8,291,432	13,029,516	2,463,852	3,452,047
Feb	8,323,844	11,828,780	2,004,162	2,234,045
Total	16,615,276	24,858,296	4,468,014	5,686,092



Table 3-72 Comparison of balancing operating reserve charges to virtual bids: January through February 2010

	Charges Under	Charges Under	
Month	Current Rules	Old Rules	Difference
Jan	\$10,131,402	\$12,596,576	(\$2,465,174)
Feb	\$3,939,289	\$5,368,599	(\$1,429,310)
Total	\$14,070,690	\$17,965,175	(\$3,894,485)



Table 3-73 Summary of impact on virtual bids under balancing operating reserve allocation: January through February 2010

	Adjusted	Adjusted	Total	Balancing Rate	Balancing Rate	Charges	Charges	
	Increment Offer	Decrement Bid	Adjusted Virtual	Under	Under	Under	Under	
Region	Deviations	Deviations	Deviations	Current Rules	Old Rules	Current Rules	Old Rules	Differerence
RTO	4,468,014	5,686,092	10,154,106	1.14	1.61	\$13,064,033	\$17,965,175	(\$4,901,142)
East	3,063,645	3,303,533	6,367,178	0.10	0.00	\$676,631	\$0	\$676,631
West	1,382,444	2,348,976	3,731,420	0.09	0.00	\$330,027	\$0	\$330,027



Table 3-74 Impact of segmented make whole payments: December 2008 through February 2010

		Balancing Credits	Balancing Credits	
Year	Month	Under Old Rules	Under New Rules	Difference
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	\$32,822,043	\$33,772,219	\$950,176
2010	Feb	\$17,343,775	\$17,631,590	\$287,815
Total		\$249,467,865	\$258,880,263	\$9,412,397



Table 3-78 Share of balancing operating reserve increases for segmented make whole payments (By unit type): January through February 2010

	Share of
Unit Type	Increase
Combined-Cycle	47.3%
Steam	5.2%
Combustion Turbines	47.5%
Diesel	0.0%



Table 3-81 Top 10 units and organizations receiving total operating reserve credits: January through February 2010

	U	Inits			Organizations	
			Total Credit			Total Credit
	Total	Total	Cumulative	Total	Total	Cumulative
Rank	Credit	Credit Share	Distribution	Credit	Credit Share	Distribution
1	\$16,850,928	21.5%	21.5%	\$38,566,981	49.1%	49.1%
2	\$11,345,345	14.5%	35.9%	\$5,740,798	7.3%	56.5%
3	\$3,170,146	4.0%	40.0%	\$4,576,534	5.8%	62.3%
4	\$2,403,186	3.1%	43.0%	\$4,083,323	5.2%	67.5%
5	\$1,432,259	1.8%	44.9%	\$3,313,644	4.2%	71.7%
6	\$1,418,148	1.8%	46.7%	\$3,170,146	4.0%	75.8%
7	\$1,413,697	1.8%	48.5%	\$2,644,548	3.4%	79.1%
8	\$1,233,637	1.6%	50.0%	\$1,470,753	1.9%	81.0%
9	\$1,198,615	1.5%	51.6%	\$1,410,670	1.8%	82.8%
10	\$989,772	1.3%	52.8%	\$1,211,435	1.5%	84.3%



SECTION 4

Figure 4-3 PJM scheduled import and export transaction volume history: 1999 through February 2010

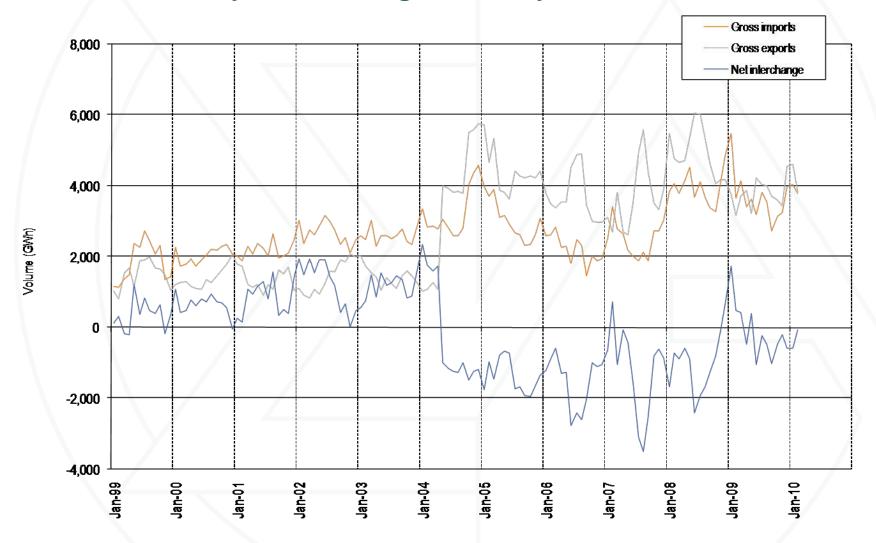




Figure 4-13 PJM, NYISO and Midwest ISO real-time border price averages: January through February 2010

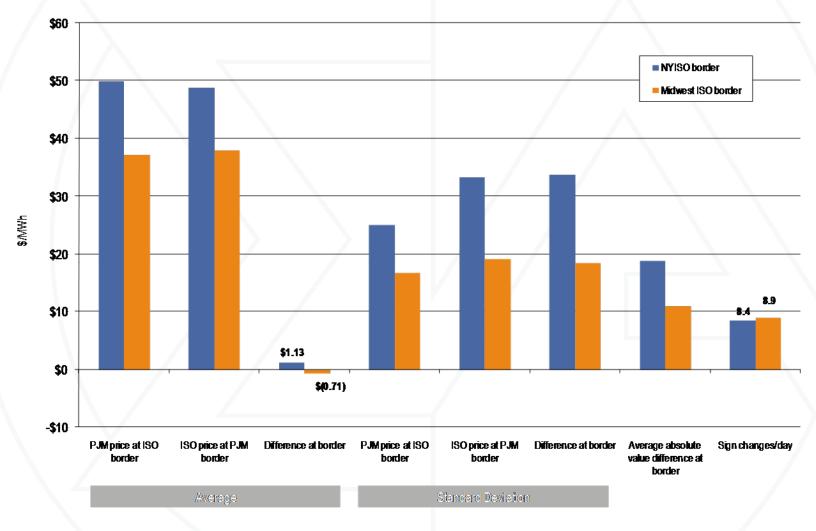






Table 4-12 Net scheduled and actual PJM interface flows (GWh): January through February 2010

				Difference
		Net	Difference	(percent of net
	Actual	Scheduled	(GWh)	scheduled)
CPLE	1,677	53	1,624	3064%
CPLW	(318)	-	(318)	0%
DUK	(340)	312	(652)	(209%)
EKPC	(26)	(165)	139	(84%)
LGEE	235	176	59	34%
MEC	(739)	(875)	136	(16%)
MISO	(961)	542	(1,503)	(277%)
ALTE	(913)	(6)	(907)	15117%
ALTW	(440)	(40)	(400)	1000%
AMIL	257	(245)	502	(205%)
CIN	849	732	117	16%
CWLP	(9)	-	(9)	0%
FE	124	(387)	511	(132%)
IPL	593	20	573	2865%
MECS	(1,846)	508	(2,354)	(463%)
NIPS	(412)	(35)	(377)	1077%
WEC	836	(5)	841	(16820%)
NYISO	(1,614)	(2, 354)	740	(31%)
LIND	(266)	(266)	-	0%
NEPT	(902)	(902)	-	0%
NYIS	(446)	(1, 186)	740	(62%)
OVEC	1,275	2,120	(845)	(40%)
TVA	511	(160)	671	(419%)
Total	(300)	(351)	51	(14.5%)



Figure 4-23 Monthly up-to congestion bids in MWh: January 2006 through February 2010

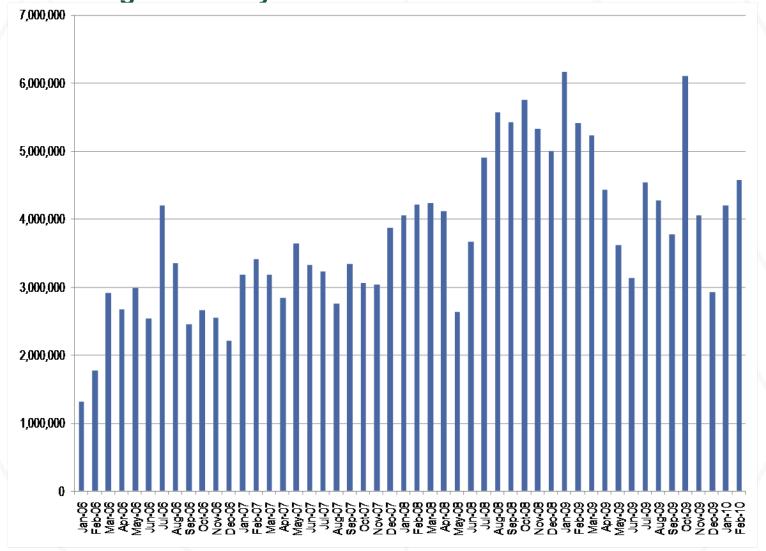
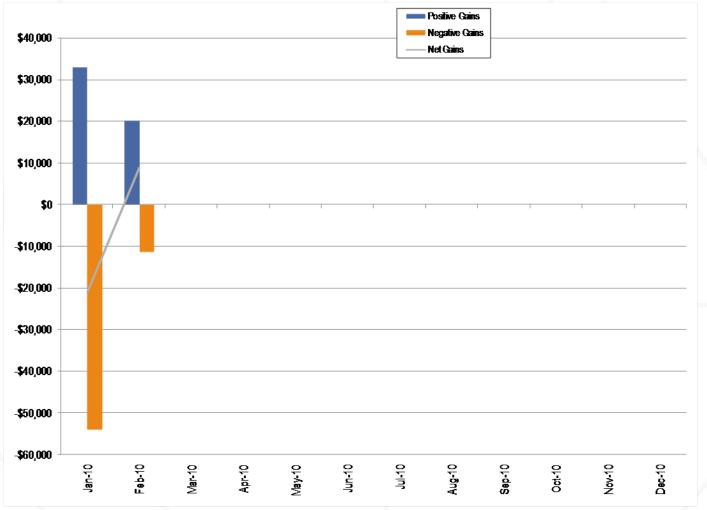




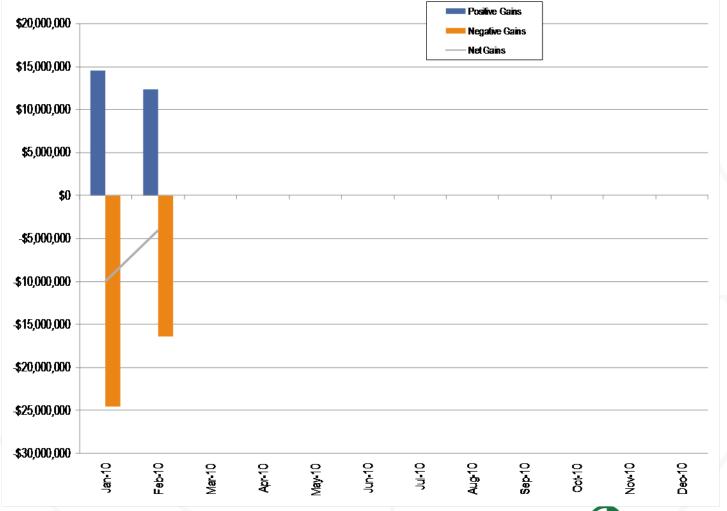
Figure 4-24 Total settlements showing positive, negative and net gains for up-to congestion bids with a matching Real-Time Market transaction: January 2009 through February 2010



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Figure 4-25 Total settlements showing positive, negative and net gains for up-to congestion bids without a matching Real-Time Market transaction: January 2009 through February 2010



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Table 4-15 Real-time average hourly LMP comparison for southeast, southwest, SouthIMP and SouthEXP Interface pricing points: November 1, 2006 through February 2010

	southeast	southwest	SOUTHIMP	SOUTHEXP	Difference	Difference	Difference	Difference
	LMP	LMP	LMP	LMP	southeast LMP - SOUTHIMP	southwest LMP - SOUTHIMP	southeast LMP - SOUTHEXP	southwest LMP - SOUTHEXP
2006	\$42.55	\$37.89	\$38.36	\$42.02	\$4.20	(\$0.47)	\$0.53	(\$4.13)
2007	\$54.35	\$45.48	\$49.09	\$48.48	\$5.26	(\$3.61)	\$5.87	(\$3.01)
2008	\$62.97	\$51.43	\$55.47	\$55.44	\$7.50	(\$4.05)	\$7.53	(\$4.01)
2009	\$35.97	\$31.94	\$33.37	\$33.37	\$2.61	(\$1.42)	\$2.61	(\$1.42)
2010	\$50.09	\$39.97	\$44.20	\$44.20	\$5.89	(\$4.23)	\$5.89	(\$4.23)



Figure 4-30 Spot import service utilization: January through February 2010

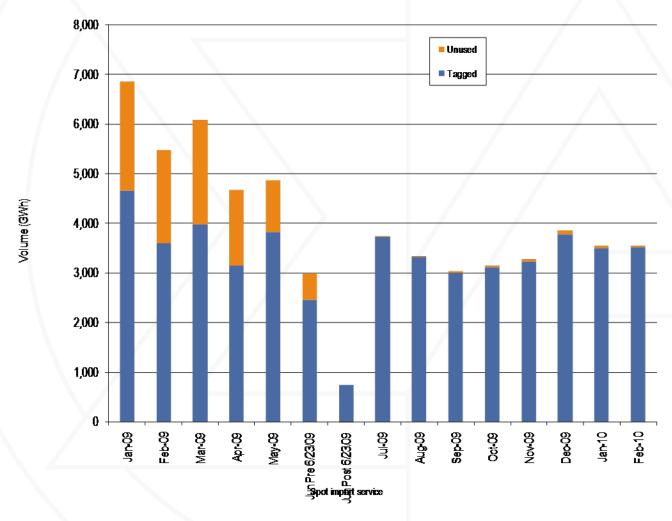
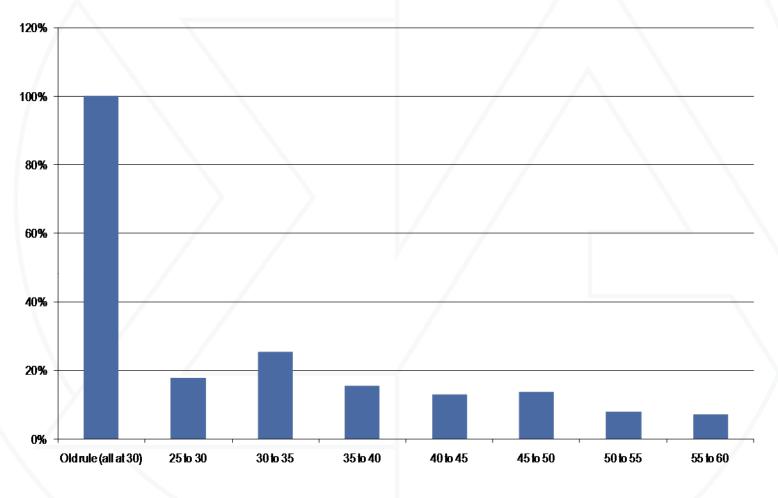




Figure 4-32 Distribution of expired ramp reservations in the hour prior to flow (Old rules (Theoretical) and new rules (Actual)) October 2006 through February 2010



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Table 5-5 PJM capacity summary (MW): June 1, 2007, through May 31, 2012

	01-Jun-07	01-Jun-08	01-Jun-09	01-Jun-10	01-Jun-11	01-Jun-12
Installed capacity (ICAP)	163,721.1	164,444.1	166,916.0	168,061.5	172,666.6	181,159.7
Unforced capacity	154,076.7	155,590.2	157,628.7	158,634.2	163,144.3	171,147.8
Cleared capacity	129,409.2	129,597.6	132,231.8	132,190.4	132,221.5	136,143.5
RPM reliability requirement (pre-FRR)	148,277.3	150,934.6	153,480.1	156,636.8	154,251.1	157,488.5
RPM reliability requirement (less FRR)	125,805.0	128,194.6	130,447.8	132,698.8	130,658.7	133,732.4
RPM net excess	5,240.5	5,011.1	8,265.5	1,149.2	3,156.6	5,754.4
Imports	2,809.2	2,460.3	2,505.4	2,750.7	6,420.0	3,831.6
Exports	(3,938.5)	(3,838.1)	(2,194.9)	(3,147.4)	(3,158.4)	(2,637.1)
Net exchange	(1,129.3)	(1,377.8)	310.5	(396.7)	3,261.6	1,194.5
DR cleared	127.6	536.2	892.9	939.0	1,364.9	7,047.2
EE cleared						568.9
ILR	1,636.3	3,608.1	6,481.5	2,110.5	1,593.8	
FRR DR	445.6	452.8	423.6	452.9	452.9	488.1
Short-Term Resource Procurement Target						3,343.3

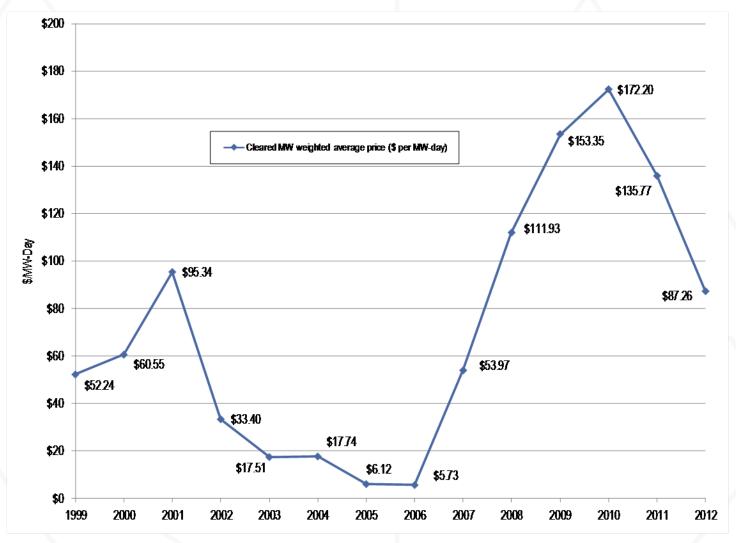


Table 5-10 Capacity prices: 2007/2008 through 2012/2013 RPM Auctions

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



Figure 5-1 History of capacity prices: Calendar year 1999 through 2012





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Figure 5-7 PJM equivalent outage and availability factors: Calendar years 2005 to February 2010

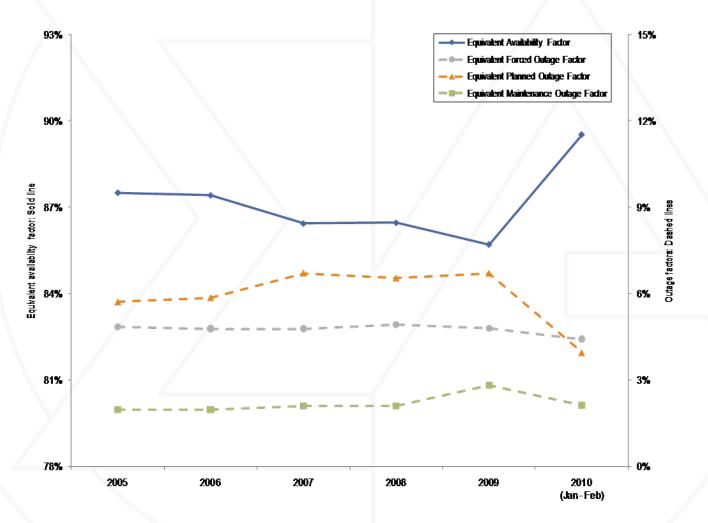




Figure 5-8 Trends in the PJM equivalent demand forced outage rate (EFORd): Calendar years 2005 to February 2010

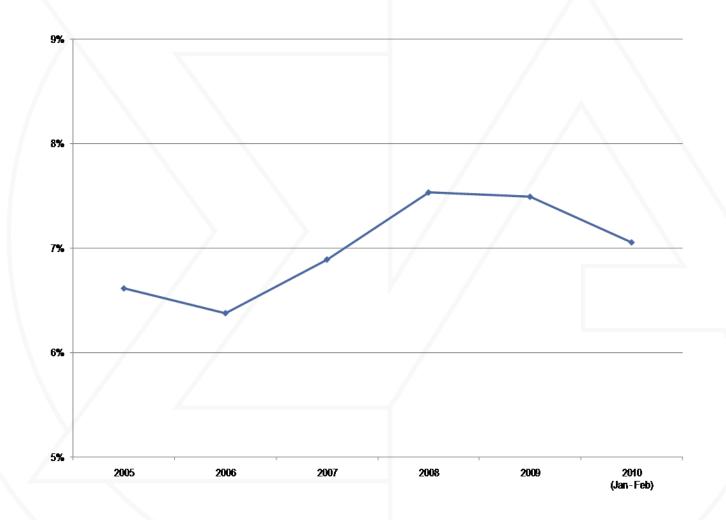






Table 5-26 Contribution to PJM EFORd, XEFORd and EFORp by unit type: January-February 2010

	EFORd	XEFORd	EFORp
Combined Cycle	6.1%	6.1%	1.8%
Combustion Turbine	10.5%	8.1%	2.4%
Diesel	6.8%	4.8%	4.2%
Hydroelectric	0.9%	0.5%	0.5%
Nuclear	1.0%	1.0%	1.0%
Steam	9.1%	7.7%	6.0%
Total	7.1%	6.0%	3.8%



Table 6-5 Regulation market monthly three pivotal supplier results: Calendar year 2009 through February 2010

		Pe	rcent of Hours With Three Pivotal
Year	Month		Suppliers
2009	Jan		84%
2009	Feb		61%
2009	Mar		42%
2009	Apr		39%
2009	May		31%
2009	Jun		37%
2009	Jul		39%
2009	Aug		35%
2009	Sep		47%
2009	Oct		64%
2009	Nov		62%
2009	Dec		80%
2010	Jan		74%
2010	Feb		70%



Figure 6-5 Monthly load weighted, average regulation cost and price: Calendar year 2009 through February 2010

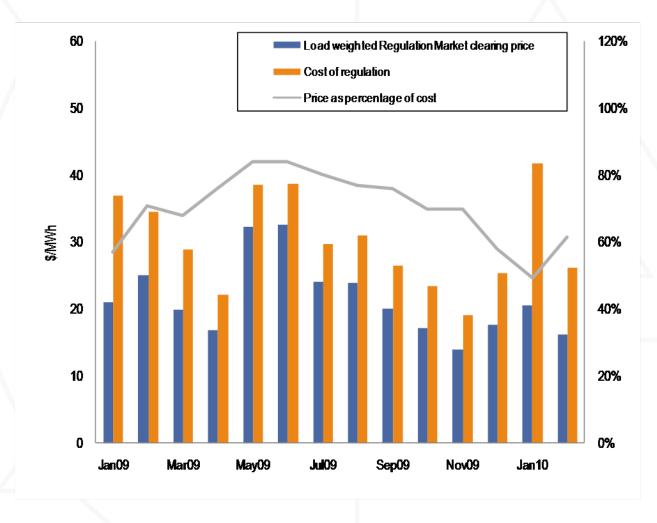




Table 6-9 Regulation Market pivotal supplier test results: January through February 2010, December 2008 through December 2009 and December 2007 through December 2008

Year	Month	ours With ee Pivotal Suppliers	Year	Month	of Hours With Three Pivotal Suppliers
2008	Dec	92%	2007	Dec	79%
2009	Jan	84%	2008	Jan	84%
2009	Feb	61%	2008	Feb	83%
2009	Mar	42%	2008	Mar	89%
2009	Apr	39%	2008	Apr	88%
2009	May	31%	2008	May	97%
2009	Jun	37%	2008	Jun	77%
2009	Jul	39%	2008	Jul	75%
2009	Aug	35%	2008	Aug	80%
2009	Sep	47%	2008	Sep	74%
2009	Oct	64%	2008	Oct	89%
2009	Nov	62%	2008	Nov	59%
2009	Dec	80%	2008	Dec	92%
2010	Jan	74%	2009	Jan	84%
2010	Feb	70%	2009	Feb	61%



Table 6-10 Impact of \$12 adder to cost based regulation offer: December 2008 through February 2010

Year	Month	Load Weighted Regulation Market Clearing Price	Load Weighted Regulation Market Clearing Price With Old Rule	Total Regulation Credits		Percent Increase in Total Credits Due to Increase of Markup from \$7.50 to \$12.00
2008	Dec	\$24.79	\$23.47	\$25,608,465	\$890,749	3%
2009	Jan	\$21.04	\$19.91	\$26,614,105	\$813,654	3%
2009	Feb	\$25.17	\$23.95	\$20,972,293	\$734,061	4%
2009	Mar	\$19.90	\$19.37	\$17,618,413	\$316,889	2%
2009	Apr	\$16.84	\$16.36	\$12,171,811	\$258,778	2%
2009	May	\$32.41	\$31.93	\$21,166,797	\$265,494	1%
2009	Jun	\$32.59	\$32.19	\$24,566,721	\$312,979	1%
2009	Jul	\$24.10	\$23.25	\$20,065,104	\$414,408	2%
2009	Aug	\$23.89	\$23.37	\$23,010,216	\$369,407	2%
2009	Sep	\$20.09	\$19.32	\$15,216,790	\$497,484	3%
2009	Oct	\$17.20	\$16.31	\$12,882,665	\$445,635	3%
2009	Nov	\$14.06	\$13.48	\$10,695,843	\$269,283	3%
2009	Dec	\$17.75	\$16.72	\$17,303,919	\$600,585	3%
2010	Jan	\$20.93	\$17.16	\$29,465,392	\$2,641,053	9%
2010	Feb	\$16.46	\$13.38	\$16,457,930	\$1,844,846	11%
Total				\$293,816,464	\$10,675,305	3.6%



Table 6-11 Impact to Regulation Market Clearing Price of using lesser of price based energy schedule or most expensive cost-based energy schedule: December 2008 through February 2010

New Rule Old Rule **Load Weighted RMCP Using Additional** Average Load Weighted RMCP **Using Lesser Using Current** Pecentage Regulation **Current Dispatch Dispatch Schedule Using Lesser** Schedule For Regulation Increase in Required Schedule for Opportunity Costs, Schedule for for Opportunity **Credits Paid** regulation **Opportunity Cost** Opportunity Costs Costs, Total Charges Month **Total Charges Using New Rule** credits Year (MW) 2008 912 \$24.79 \$25,608,465 \$22.50 \$24,039,842 \$1,568,623 6% Dec 2009 970 \$21.04 \$26,614,105 \$17.62 \$24,136,240 9% \$2,477,865 Jan 2009 Feb 905 \$25.83 \$20.972.293 \$17.10 \$16,257,318 22% \$4,714,975 2009 Mar 819 \$19.90 \$17,618,413 \$16.34 \$15,645,792 \$1,972,621 11% 2009 \$16.84 \$12,171,811 \$13.93 \$1,602,443 13% Apr 762 \$10.569.368 2009 738 \$32.41 \$24.63 22% May \$21,166,797 \$16,514,576 \$4,652,221 30% 2009 884 \$32.59 \$24,566,721 \$23.08 \$17,198,351 \$7,368,370 Jun 2009 Jul 908 \$24.10 \$20,065,104 \$15.33 \$12,992,257 \$7,072,847 35% \$14.18 35% 2009 Aug 998 \$23.89 \$23,010,216 \$15,047,460 \$7,962,756 2009 Sep 803 \$20.09 \$15,216,790 \$13.72 \$10,656,302 \$4,560,488 30% 13% 2009 744 \$17.20 \$12,882,665 \$13.62 \$11,167,730 \$1,714,935 Oct 2009 Nov 779 \$14.06 \$10,695,843 \$10.83 \$9,230,018 \$1,465,825 14% 2009 781 \$17.75 \$17,303,919 \$16,974,055 \$329.864 2% Dec \$11.71 2010 \$11.56 22% Jan 950 \$20.66 \$29,479,645 \$23,065,981 \$6,413,664 2010 944 23% Feb \$16.17 \$16,490,553 \$9.93 \$12,730,541 \$3,760,012 Total \$293,863,340 \$236,225,831 \$57,637,509 20%





Table 6-12 Additional credits paid to regulating units from no longer netting credits above RMCP against operating reserves: December 2008 through February 2010

			_	
Year	Month	Balancing Operating Reserve Credits No Longer Offset	Total Regulation Credits	Percent of Regulation Credits No Longer Offsetting Operating Reserves
2008	Dec	\$253,165	\$25,608,465	1%
2009	Jan	\$127,036	\$26,614,105	0%
2009	Feb	\$220,460	\$20,972,293	1%
2009	Mar	\$79,726	\$17,618,413	0%
2009	Apr	\$8,893	\$12,171,811	0%
2009	May	\$182,624	\$21,166,797	1%
2009	Jun	\$274,916	\$24,566,721	1%
2009	Jul	\$191,538	\$20,065,104	1%
2009	Aug	\$267,116	\$23,010,216	1%
2009	Sep	\$ 252,136	\$15,216,790	2%
2009	Oct	\$169,130	\$12,882,665	1%
2009	Nov	\$166,112	\$10,695,843	2%
2009	Dec	\$104,496	\$17,303,919	1%
2010	Jan	\$ 64,990	\$29,465,392	0%
2010	Feb	\$66,223	\$16,457,930	0%
Total		\$ 2,428,561	\$293,816,464	1%



Table 6-13 Summary of additional charges paid as a result of December 1, 2008 changes to Regulation Market rules: December 2008 through February 2010

			Increasing Markup t	from \$7.50 to \$12.00		culated Using Lower of Cost Based Price	Opportunity Cos	its Above Cost Plus ts no Longer Offset rating Reserves	Supplier Test	Three Pivotal ing, December Summary
Year	Month	Total Regulation Credits	Attributable to Marginal Units Cost Offer > Costs Plus	Percent Increase in Total Credits Due to Marginal Unit With Offer > Cost Plus \$7.50	Regulation Credits Paid Due to New Opportunity Cost	Percentage Increase in Regulation Credits Due to New Opportunity Cost Calculation	Balancing Operating Reserve Credits No Longer Offset	Percent of Regulation Credits No Longer Offsetting Operating Reserves	Additional Generator	
2008	Dec	\$25,608,465	\$890,749	3%	\$1,568,623	6%	\$253,165	1%	\$2,712,537	11%
2009	Jan	\$26,614,105	\$813,654	3%	\$2,477,865	9%	\$127,036	0%	\$3,418,555	13%
2009	Feb	\$20,972,293	\$734,061	4%	\$4,714,975	22%	\$220,460	1%	\$5,669,496	27%
2009	Mar	\$17,618,413	\$316,889	2%	\$1,972,621	11%	\$79,726	0%	\$2,369,236	13%
2009	Apr	\$12,171,811	\$258,778	2%	\$1,602,443	13%	\$8,893	0%	\$1,870,114	15%
2009	May	\$21,166,797	\$265,494	1%	\$4,652,221	22%	\$182,624	1%	\$5,100,339	24%
2009	Jun	\$24,566,721	\$312,979	1%	\$7,368,370	30%	\$274,916	1%	\$7,956,265	32%
2009	Jul	\$20,065,104	\$414,408	2%	\$ 7,072,847	35%	\$191,538	1%	\$7,678,793	38%
2009	Aug	\$23,010,216	\$369,407	2%	\$7,962,756	35%	\$267,116	1%	\$8,599,279	37%
2009	Sep	\$15,216,790	\$497,484	3%	\$4,560,488	30%	\$252,136	2%	\$ 5,310,108	35%
2009	Oct	\$12,882,665	\$445,635	3%	\$1,714,935	13%	\$169,130	1%	\$2,329,700	18%
2009	Nov	\$10,695,843	\$269,283	3%	\$1,565,825	15%	\$166,112	2%	\$2,001,220	19%
2009	Dec	\$17,303,919	\$600,585	3%	\$329,864	2%	\$104,496	1%	\$1,034,945	6%
2010	Jan	\$29,465,392	\$2,641,053	9%	\$ 6,413,664	22%	\$64,990	0%	\$9,119,707	31%
2010	Feb	\$16,457,930	\$1,844,846	11%	\$3,942,974	24%	\$66,223	0%	\$5,854,043	36%
Total		\$293,816,464	\$10,675,305	3.6%	\$57,920,471	20%	\$2,428,561	1%	\$71,024,337	25%





Figure 6-7 RFC Synchronized Reserve Zone, Mid-Atlantic Subzone average hourly synchronized reserve required vs. Tier 2 scheduled: Calendar year 2009 through February 2010

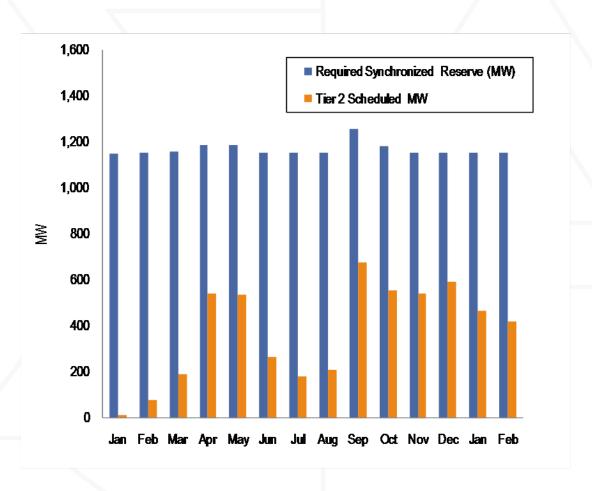




Table 6-16 Average RFC SRMCP when all cleared synchronized reserve is DSR, average SRMCP, and percent of all cleared hours that all cleared synchronized reserve is DSR: Calendar year 2009 through February 2010

Year	Month	Average SRMCP when all cleared synchronized reserve is DSR	Average SRMCP	Percent of cleared hours all synchronized reserve is DSR
2009	Jan	\$1.24	\$5.90	43%
2009	Feb	\$2.01	\$5.09	47%
2009	Mar	\$1.98	\$5.50	26%
2009	Арг	\$2.49	\$7.12	9%
2009	May	\$1.91	\$7.56	12%
2009	Jun	\$1.76	\$5.97	27%
2009	Jul	\$1.95	\$5.41	31%
2009	Aug	\$1.36	\$5.37	13%
2009	Sep	\$1.77	\$7.65	2%
2009	Oct	\$1.37	\$5.94	0%
2009	Nov	\$0.50	\$6.47	1%
2009	Dec	\$1.05	\$7.11	1%
2010	Jan	\$2.03	\$5.84	4%
2010	Feb	\$0.10	\$ 5.97	1%



Figure 6-11 PJM RFC Zone Tier 2 synchronized reserve scheduled MW: Calendar year 2009 through February 2010

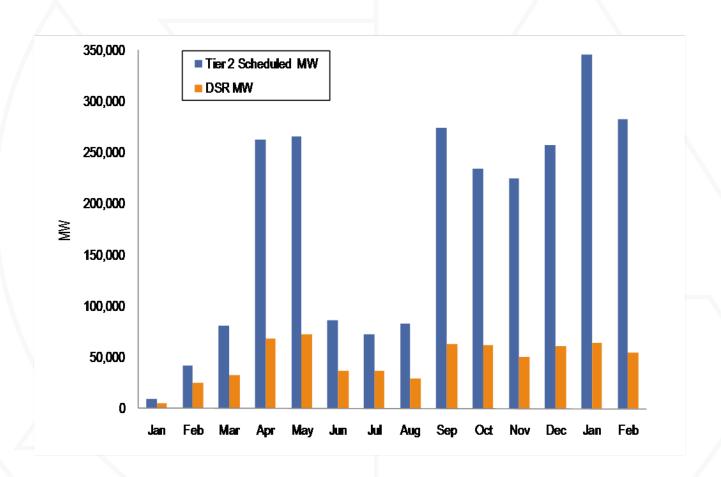






Table 6-17 PJM, Day-Ahead Scheduling Reserve Market MW and clearing prices: Calendar year 2009 through February 2010

Year	Month	Average Required Hourly DASR (MW)	Minimum Clearing Price	Maximum Clearing Price	Average Load Weighted Clearing Price	Total DASR MW Puchased	Total DASR Credits
2009	Jan	5,875	\$0.00	\$0.50	\$0.09	4,103,463	\$381,735
2009	Feb	5,517	\$0.00	\$0.25	\$0.05	3,510,983	\$180,767
2009	Mar	5,068	\$0.00	\$1.00	\$0.03	3,499,722	\$113,507
2009	Apr	4,910	\$0.00	\$0.50	\$0.03	3,354,999	\$92,158
2009	May	4,957	\$0.00	\$0.07	\$0.02	3,478,374	\$77,850
2009	Jun	5,936	\$0.00	\$0.75	\$0.05	4,006,547	\$191,578
2009	Jul	6,071	\$0.00	\$0.50	\$0.04	4,191,307	\$155,790
2009	Aug	6,725	\$0.00	\$4.00	\$0.13	4,773,330	\$620,430
2009	Sep	5,438	\$0.00	\$0.42	\$0.02	3,764,923	\$77,945
2009	Oct	5,023	\$0.00	\$0.42	\$0.03	3,610,812	\$102,984
2009	Nov	5,188	\$0.00	\$0.42	\$0.03	3,556,557	\$113,027
2009	Dec	5,992	\$0.00	\$0.50	\$0.05	3,921,732	\$191,599
2010	Jan	6,246	\$0.00	\$0.75	\$0.05	4,647,334	\$119,451
2010	Feb	6,191	\$0.00	\$0.50	\$0.06	4,160,064	\$171,919



Table 6-18 Black Start yearly zonal charges for network transmission use: January through February 2010

Zone	Network Charges
AECO	\$61,906
AEP	\$122,623
AP	\$22,682
BGE	\$80,357
ComEd	\$617,147
DAY	\$24,378
DLCO	\$4,448
DPL	\$65,085
JCPL	\$72,793
Met-Ed	\$67,681
PECO	\$121,059
PENELEC	\$56,403
Pepco	\$37,190
PPL	\$25,818
PSEG	\$157,926





Table 7-1 Total monthly PJM congestion (Dollars (Millions)): Calendar years 2008 through February 2010

		0000	0000	0040
		2008	2009	2010
J	an	\$231.0	\$149.3	\$218.5
F	eb	\$168.1	\$83.0	\$106.4
N	1ar	\$86.4	\$74.6	
Α	pr	\$126.2	\$25.6	
N	1ay	\$182.8	\$25.9	
J	un	\$436.4	\$49.8	
J	ul	\$359.8	\$39.4	
Α	ug	\$127.4	\$72.1	
S	бер	\$124.8	\$23.9	
C)ct	\$102.2	\$42.7	
N	lov	\$93.0	\$36.3	
D	ес	\$78.4	\$96.4	
T	otal	\$2,116.6	\$719.0	\$324.9





Table 8-4 Annual FTR Auction patterns of ownership by FTR direction: Planning period 2009 to 2010

		FTR Direction				
Organization Type	Self-Scheduled FTRs	Prevailing Flow	Counter Flow	All		
Physical	Yes	36.7%	5.9%	29.6%		
	No	24.4%	36.8%	27.3%		
	Total	61.2%	42.7%	56.9%		
Financial	No	38.8%	57.3%	43.1%		
Total		100.0%	100.0%	100.0%		

Figure 8-11 Annual FTR Auction prices vs. average day-ahead and real-time congestion for all control zones relative to the Western Hub: Planning period 2009 to 2010 through February 28, 2009

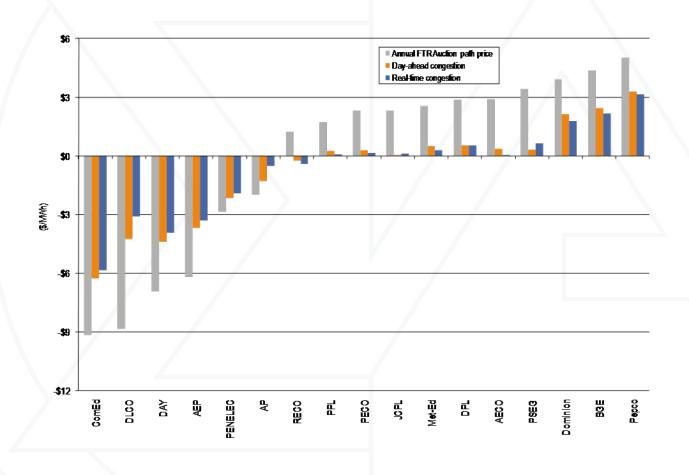




Table 8-25 ARR and self scheduled FTR congestion hedging by control zone: Planning period 2009 to 2010, through February 2010

					Total Revenue -	
Control		Self-Scheduled			Congestion	Percent
Zone	ARR Credits	FTR Credits	Total Revenue	Congestion	Difference	Hedged
AECO	\$16,334,077	\$480,693	\$16,814,770	\$13,872,643	\$2,942,127	>100%
AEP	\$4,284,698	\$132,990,866	\$137,275,564	\$108,208,573	\$29,066,991	>100%
AP	\$45,451,856	\$150,887,438	\$196,339,294	\$30,859,156	\$165,480,139	>100%
BGE	\$46,459,694	\$2,399,536	\$48,859,230	\$8,029,590	\$40,829,640	>100%
ComEd	\$14,549,758	\$25,974,326	\$40,524,084	\$51,462,124	(\$10,938,041)	78.7%
DAY	\$6,207,117	\$668,080	\$ 6,875,197	\$8,658,186	(\$1,782,989)	79.4%
DLCO	\$2,450,918	\$2,619	\$2,453,537	\$14,977,647	(\$12,524,111)	16.4%
Dominion	\$16,378,604	\$577,204	\$16,955,808	\$57,926,881	(\$40,971,073)	29.3%
DPL	\$6,134,065	\$129,260,214	\$135,394,279	\$23,056,206	\$112,338,073	>100%
JCPL	\$28,119,187	\$740,087	\$28,859,274	\$17,281,463	\$11,577,811	>100%
Met-Ed	\$108,900	\$10,188,146	\$10,297,046	\$16,364,248	(\$6,067,202)	62.9%
PECO	\$1,932,121	\$15,543,473	\$17,475,594	(\$16,737,899)	\$34,213,493	>100%
PENELEC	\$22,966,832	\$9,924,075	\$32,890,907	\$5,767,089	\$27,123,818	>100%
Рерсо	\$21,798,040	\$1,480,509	\$23,278,549	\$115,182,267	(\$91,903,718)	20.2%
PJM	\$7,727,385	(\$36,688)	\$7,690,697	\$2,247,094	\$5,443,602	>100%
PPL	\$1,102,352	\$13,053,989	\$14,156,341	(\$20,168,756)	\$34,325,097	>100%
PSEG	\$83,906,643	\$2,591,340	\$86,497,983	\$4,165,974	\$82,332,009	>100%
RECO	(\$41,455)	\$0	(\$41,455)	\$943,165	(\$984,620)	0%
Total	\$325,870,792	\$496,725,907	\$822,596,699	\$442,095,652	\$380,501,047	>100%



Table 8-27 ARR and FTR congestion hedging by control zone: Planning period 2009 to 2010, through February 2010

		ETP Auction	Total APP and		Total Hedge -	Percent
ARR Credits	FTR Credits	Revenue	FTR Hedge	Congestion	Difference	Hedged
\$19,253,332	\$2,860,960	\$24,509,727	(\$2,395,435)	\$9,829,974	(\$12,225,409)	<0%
\$223,262,229	\$144,145,273	\$218,757,797	\$148,649,705	\$97,526,724	\$51,122,981	>100%
\$365,048,488	\$150,349,533	\$329,655,454	\$185,742,567	\$106,700,980	\$79,041,587	>100%
\$52,131,739	\$26,531,954	\$35,122,134	\$43,541,559	\$33,351,573	\$10,189,986	>100%
\$27,261,279	\$48,393,172	\$15,077,982	\$60,576,469	\$158,840,629	(\$98,264,160)	38.1%
\$7,505,314	\$826,990	\$69,456	\$8,262,848	\$6,745,359	\$1,517,489	>100%
\$2,454,337	\$6,999,240	(\$2,724,555)	\$12,178,132	\$19,013,117	(\$6,834,985)	64.1%
\$213,840,239	\$137,694,844	\$233,593,748	\$117,941,335	\$129,854,757	(\$11,913,422)	90.8%
\$17,792,090	\$10,292,129	\$34,855,729	(\$6,771,510)	\$23,393,245	(\$30,164,755)	<0%
\$34,924,213	\$1,917,315	\$43,217,780	(\$6,376,252)	\$15,734,380	(\$22,110,632)	<0%
\$27,312,021	\$13,382,569	\$33,153,125	\$7,541,465	\$4,496,367	\$3,045,098	>100%
\$49,863,646	\$18,495,883	\$55,655,197	\$12,704,332	(\$18,830,320)	\$31,534,652	>100%
\$49,412,326	\$40,604,799	\$69,719,682	\$20,297,443	\$50,230,087	(\$29,932,644)	40.4%
\$23,702,306	\$86,443,177	\$89,706,022	\$20,439,461	\$53,215,527	(\$32,776,066)	38.4%
\$9,979,482	(\$4,439,263)	(\$4,061,052)	\$9,601,271	\$6,383,137	\$3,218,134	>100%
\$55,143,860	\$19,907,744	\$61,136,450	\$13,915,154	(\$8,559,896)	\$22,475,050	>100%
\$94,609,238	\$18,416,441	\$110,995,134	\$2,030,545	(\$3,498,696)	\$5,529,241	>100%
(\$41,455)	(\$786,321)	(\$2,759,139)	\$1,931,363	\$1,104,920	\$826,443	>100%
\$1,273,454,684	\$722,036,440	\$1,345,680,671	\$649,810,453	\$685,531,864	(\$35,721,411)	94.8%
	\$19,253,332 \$223,262,229 \$365,048,488 \$52,131,739 \$27,261,279 \$7,505,314 \$2,454,337 \$213,840,239 \$17,792,090 \$34,924,213 \$27,312,021 \$49,863,646 \$49,412,326 \$23,702,306 \$9,979,482 \$55,143,860 \$94,609,238 (\$41,455)	\$19,253,332 \$2,860,960 \$223,262,229 \$144,145,273 \$365,048,488 \$150,349,533 \$52,131,739 \$26,531,954 \$27,261,279 \$48,393,172 \$7,505,314 \$826,990 \$2,454,337 \$6,999,240 \$213,840,239 \$137,694,844 \$17,792,090 \$10,292,129 \$34,924,213 \$1,917,315 \$27,312,021 \$13,382,569 \$49,863,646 \$18,495,883 \$49,412,326 \$40,604,799 \$23,702,306 \$86,443,177 \$9,979,482 \$4,439,263) \$55,143,860 \$19,907,744 \$94,609,238 \$18,416,441 (\$41,455) \$786,321)	\$19,253,332 \$2,860,960 \$24,509,727 \$223,262,229 \$144,145,273 \$218,757,797 \$365,048,488 \$150,349,533 \$329,655,454 \$52,131,739 \$26,531,954 \$35,122,134 \$27,261,279 \$48,393,172 \$15,077,982 \$7,505,314 \$826,990 \$69,456 \$2,454,337 \$6,999,240 (\$2,724,555) \$213,840,239 \$137,694,844 \$233,593,748 \$17,792,090 \$10,292,129 \$34,855,729 \$34,924,213 \$1,917,315 \$43,217,780 \$27,312,021 \$13,382,569 \$33,153,125 \$49,863,646 \$18,495,883 \$55,655,197 \$49,412,326 \$40,604,799 \$69,719,682 \$23,702,306 \$86,443,177 \$89,706,022 \$9,979,482 (\$4,439,263) (\$4,061,052) \$55,143,860 \$19,907,744 \$61,136,450 \$94,609,238 \$18,416,441 \$110,995,134 (\$41,455) (\$786,321) (\$2,759,139)	ARR Credits FTR Credits Revenue FTR Hedge \$19,253,332 \$2,860,960 \$24,509,727 (\$2,395,435) \$223,262,229 \$144,145,273 \$218,757,797 \$148,649,705 \$365,048,488 \$150,349,533 \$329,655,454 \$185,742,567 \$52,131,739 \$26,531,954 \$35,122,134 \$43,541,559 \$27,261,279 \$48,393,172 \$15,077,982 \$60,576,469 \$7,505,314 \$826,990 \$69,456 \$8,262,848 \$2,454,337 \$6,999,240 (\$2,724,555) \$12,178,132 \$213,840,239 \$137,694,844 \$233,593,748 \$117,941,335 \$17,792,090 \$10,292,129 \$34,855,729 (\$6,771,510) \$34,924,213 \$1,917,315 \$43,217,780 (\$6,376,252) \$27,312,021 \$13,382,569 \$33,153,125 \$7,541,465 \$49,863,646 \$18,495,883 \$55,655,197 \$12,704,332 \$49,412,326 \$40,604,799 \$69,719,682 \$20,297,443 \$23,702,306 \$86,443,177 \$89,706,022 \$20,439,461 \$9	ARR Credits FTR Credits Revenue FTR Hedge Congestion \$19,253,332 \$2,860,960 \$24,509,727 (\$2,395,435) \$9,829,974 \$223,262,229 \$144,145,273 \$218,757,797 \$148,649,705 \$97,526,724 \$365,048,488 \$150,349,533 \$329,655,454 \$185,742,567 \$106,700,980 \$52,131,739 \$26,531,954 \$35,122,134 \$43,541,559 \$33,351,573 \$27,261,279 \$48,393,172 \$15,077,982 \$60,576,469 \$158,840,629 \$7,505,314 \$826,990 \$69,456 \$8,262,848 \$6,745,359 \$2,454,337 \$6,999,240 \$2,724,555) \$12,178,132 \$19,013,117 \$213,840,239 \$137,694,844 \$233,593,748 \$117,941,335 \$129,854,757 \$17,792,090 \$10,292,129 \$34,855,729 \$6,771,510 \$23,393,245 \$34,924,213 \$1,917,315 \$43,217,780 \$6,376,252 \$15,734,380 \$27,312,021 \$13,382,569 \$33,153,125 \$7,541,465 \$4,496,367 \$49,863,646 \$18,495,883 \$55,655	ARR Credits FTR Credits Revenue FTR Hedge Congestion Difference \$19,253,332 \$2,860,960 \$24,509,727 (\$2,395,435) \$9,829,974 (\$12,225,409) \$223,262,229 \$144,145,273 \$218,757,797 \$148,649,705 \$97,526,724 \$51,122,981 \$365,048,488 \$150,349,533 \$329,655,454 \$185,742,567 \$106,700,980 \$79,041,587 \$52,131,739 \$26,531,954 \$35,122,134 \$43,541,559 \$33,351,573 \$10,189,986 \$27,261,279 \$48,393,172 \$15,077,982 \$60,576,469 \$158,840,629 (\$98,264,160) \$7,505,314 \$826,990 \$69,456 \$8,262,848 \$6,745,359 \$1,517,489 \$2,454,337 \$6,999,240 (\$2,724,555) \$12,178,132 \$19,013,117 (\$6,834,985) \$213,840,239 \$137,694,844 \$233,593,748 \$117,941,335 \$129,854,757 \$11,913,422) \$17,792,090 \$10,292,129 \$34,855,729 \$6,376,252) \$15,734,380 \$22,110,632) \$27,312,021 \$13,382,569 \$33,153,125 \$7,54





Table 8-28 ARR and FTR congestion hedging: Planning periods 2008 to 2009 and 2009 to 2010, through February 2010

						Total Hedge -				
Planning			FTR Auction	Total ARR and		Congestion	Percent			
Period	ARR Credits	FTR Credits	Revenue	FTR Hedge	Congestion	Difference	Hedged			
2008/2009	\$2,361,292,807	\$1,748,201,585	\$2,489,609,470	\$1,619,884,922	\$1,489,647,665	\$130,237,257	>100%			
2009/2010*	\$954,918,288	\$722,052,208	\$1,021,266,943	\$655,703,554	\$685,531,865	(\$29,828,311)	95.6%			
* Shows nine	Shows nine months ended 28-Feb-10									

Shows nine months ended 28-Feb-10

