PJM Markets: January through April, 2011

Members Committee June 23, 2011 Joseph Bowring





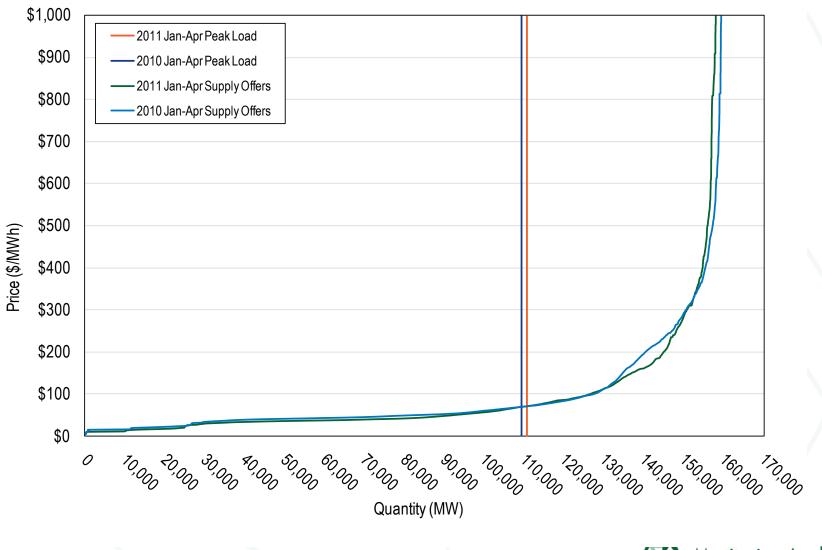
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Table 1-7 Total price per MWh by category and total revenues by category: January through April of 2010 and 2011 (See 2010 SOM, Table 1-7)

			Percent	2010	2011		2010 (Jan-	2011	Percent
	Totals (\$ Millions)	Totals (\$ Millions)	Change			Percent Change		(Jan-Apr)	Change in
Category	2010 (Jan-Apr)	2011 (Jan-Apr)	Totals	\$/MWh	\$/MWh	\$/MWh	Percent	Percent	Proportions
Energy	\$9,843.64	\$10,322.81	4.9%	\$44.14	\$46.03	4.3%	71.5%	69.8%	(2.4%)
Capacity	\$2,568.53	\$2,939.17	14.4%	\$11.52	\$13.11	13.8%	18.7%	19.9%	6.5%
Transmission Service Charges	\$902.04	\$1,006.81	11.6%	\$4.04	\$4.49	11.0%	6.6%	6.8%	3.9%
Operating Reserves (Uplift)	\$139.01	\$150.24	8.1%	\$0.62	\$0.67	7.5%	1.0%	1.0%	0.6%
Reactive	\$81.74	\$90.74	11.0%	\$0.37	\$0.40	10.4%	0.6%	0.6%	3.3%
PJM Administrative Fees	\$83.15	\$78.88	(5.1%)	\$0.37	\$0.35	(5.7%)	0.6%	0.5%	(11.7%)
Transmission Enhancement Cost Recovery	\$27.93	\$69.25	147.9%	\$0.13	\$0.31	146.5%	0.2%	0.5%	130.8%
Regulation	\$73.64	\$62.99	(14.5%)	\$0.33	\$0.28	(14.9%)	0.5%	0.4%	(20.4%)
Synchronized Reserves	\$11.55	\$28.40	145.8%	\$0.05	\$0.13	144.5%	0.1%	0.2%	128.9%
Transmssion Owner (Schedule 1A)	\$18.96	\$20.88	10.2%	\$0.09	\$0.09	9.5%	0.1%	0.1%	2.6%
NERC/RFC	\$4.50	\$4.34	(3.5%)	\$0.02	\$0.02	(4.0%)	0.0%	0.0%	(10.2%)
Black Start	\$3.56	\$4.04	13.4%	\$0.02	\$0.02	12.7%	0.0%	0.0%	5.5%
RTO Startup and Expansion	\$3.03	\$3.03	0.1%	\$0.01	\$0.01	(0.5%)	0.0%	0.0%	(6.9%)
Load Response	\$1.61	\$1.56	(2.9%)	\$0.01	\$0.01	(3.4%)	0.0%	0.0%	(9.6%)
Transmission Facility Charges	\$0.62	\$0.49	(21.0%)	\$0.00	\$0.00	(21.5%)	0.0%	0.0%	(26.5%)
Day Ahead Scheduling Reserve (DASR)	\$0.45	\$0.26	(42.0%)	\$0.00	\$0.00	(42.3%)	0.0%	0.0%	(46.0%)
Total	\$13,763.95	\$14,783.88	7.4%	\$61.72	\$65.92	6.8%	100.0%	100.0%	0.0%
NERC/RFC Black Start RTO Startup and Expansion Load Response Transmission Facility Charges Day Ahead Scheduling Reserve (DASR)	\$4.50 \$3.56 \$3.03 \$1.61 \$0.62 \$0.45	\$4.34 \$4.04 \$3.03 \$1.56 \$0.49 \$0.26	(3.5%) 13.4% 0.1% (2.9%) (21.0%) (42.0%)	\$0.02 \$0.02 \$0.01 \$0.01 \$0.00 \$0.00	\$0.02 \$0.02 \$0.01 \$0.01 \$0.00 \$0.00	(4.0%) 12.7% (0.5%) (3.4%) (21.5%) (42.3%)	0.0% 0.0% 0.0% 0.0% 0.0%	0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	(10.2%) 5.5% (6.9%) (9.6%) (26.5%) (46.0%)



Figure 2-1 Average PJM day-ahead aggregate supply curves: January through April, 2010 and 2011 (See 2010 SOM, Figure 2-1)





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Table 2-2 Frequency distribution of unit offer prices: January through April 2011 (See 2010 SOM, Table 2-3)

		PJM Dispatched Share	Self-Scheduled Share
Range	All Offers	of All Offers	of All Offers
(\$200) - \$0	11.5%	18.0%	82.0%
\$0 - \$200	48.7%	87.1%	13.0%
\$200 - \$400	25.4%	96.6%	3.4%
\$400 - \$600	8.3%	99.4%	0.6%
\$600 - \$800	3.4%	97.1%	2.9%
\$800 - \$1,000	2.7%	89.5%	10.5%





Table 2-3 Actual PJM footprint peak loads: January through April of 2002 to 2011 (See 2010 SOM, Table 2-4)

Year	Date	Hour Ending (EPT)	PJM Load (MW)	Annual Change (MW)	Annual Change (%)
2002	Wed, April 17	17	50,907	NA	NA
2003	Thu, January 23	19	54,670	3,763	7.4%
2004	Mon, January 26	19	53,620	(1,050)	(1.9%)
2005	Tue, January 18	19	96,362	42,742	79.7%
2006	Mon, February 13	20	100,065	3,703	3.8%
2007	Mon, February 05	20	118,800	18,736	18.7%
2008	Thu, January 03	19	111,724	(7,076)	(6.0%)
2009	Fri, January 16	19	117,169	5,445	4.9%
2010	Mon, January 04	19	109,210	(7,959)	(6.8%)
2011	Mon, January 24	8	110,659	1,448	1.3%



Figure 2-2 Actual PJM footprint peak loads: January through April of 2002 to 2011 (See 2010 SOM, Figure 2-2)

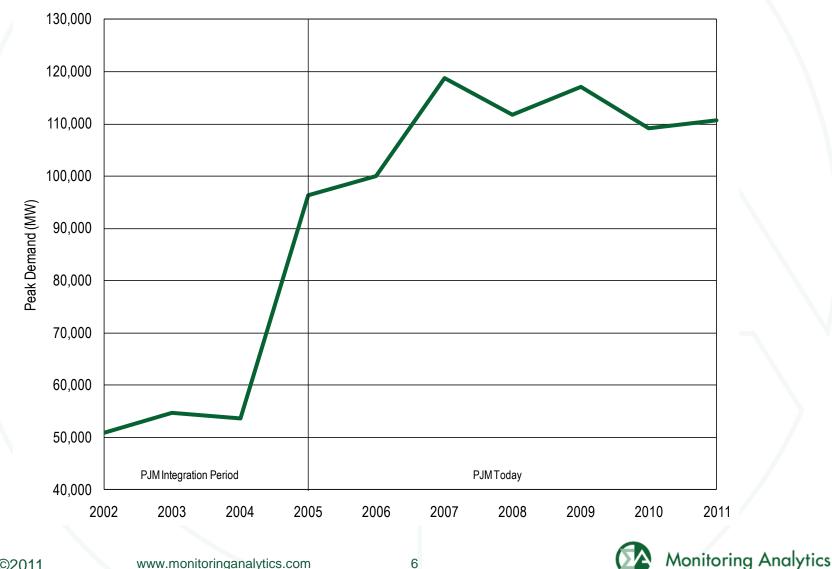
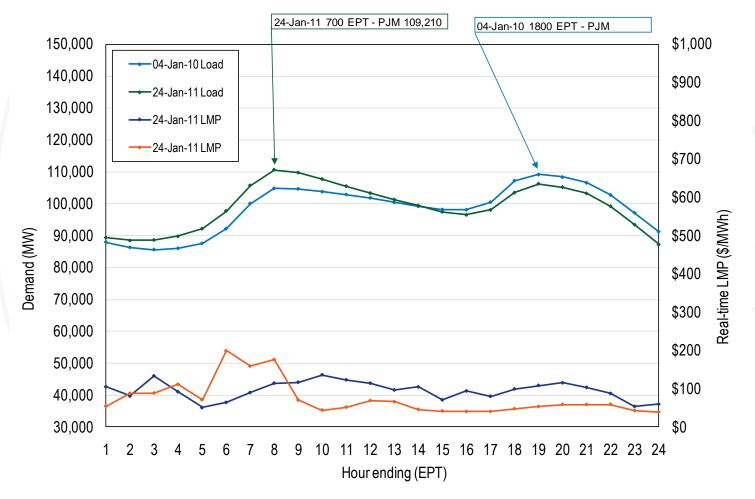


Figure 2-3 PJM first four months peak-load comparison: Monday, January 24, 2011, and Monday, January 4, 2010 (See 2010 SOM, Figure 2-3)





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Table 2-6 Annual offer-capping statistics: Calendar years 2007 through April 2011 (See 2010 SOM, Table 2-7)

	Real Ti	me	Day Ahead			
	Unit Hours	MW	Unit Hours	MW		
	Capped	Capped	Capped	Capped		
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	1.2%	0.4%	0.2%	0.1%		
2011	0.6%	0.2%	0.0%	0.0%		



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Table 2-7 Real-time offer-capped unit statistics: January through April 2011 (See 2010 SOM, Table 2-8)

		2011 (Offer-Capped H	lours		
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	0	52
80% and < 90%	0	0	0	0	0	16
75% and < 80%	0	0	0	0	1	6
70% and < 75%	0	0	0	0	0	8
60% and < 70%	0	0	0	0	0	19
50% and < 60%	0	0	0	0	0	15
25% and < 50%	1	0	0	1	0	31
10% and < 25%	0	1	1	1	0	12



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Table 2-27 PJM real-time average hourly load: Calendar years1998 through April 2011 (See 2010 SOM, Table 2-28)

	PJM Re	al-Time Load (\ /	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%)	
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	79,611	77,430	15,504	4.7%	2.6%	16.9%	
2011	77,897	77,407	11,187	(2.2%)	(0.0%)	(27.8%)	







Figure 2-6 PJM real-time average hourly load: Calendar years 2010 through April 2011 (See 2010 SOM, Figure 2-6)

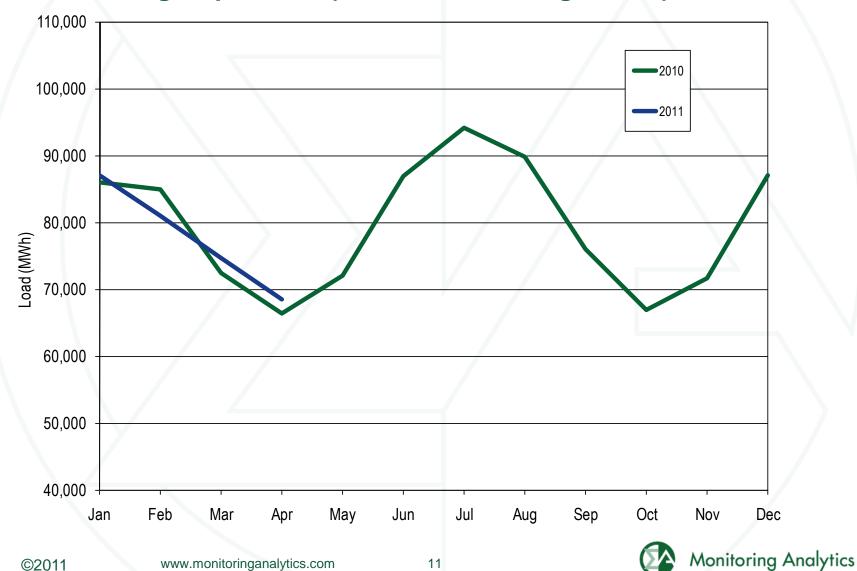




Table 2-29 PJM day-ahead average load: Calendar years 2000through April 2011 (See 2010 SOM, Table 2-31)

	PJM Da	PJM Day-Ahead Load (MWh) Standard			Year-to-Year Change		
	Average	Median	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	90,985	88,925	17,014	2.6%	0.1%	14.2%	
2011	86,162	86,159	12,246	(5.3%)	(3.1%)	(28.0%)	





Figure 2-8 PJM day-ahead average load: Calendar years 2010 through April 2011 (See 2010 SOM, Figure 2-8)





Table 2-30 Cleared day-ahead and real-time load (MWh): January through April 2011 (See 2010 SOM, Table 2-32)

	Day Ahead				Real Time Average Difference		
	Cleared Fixed Demand	Cleared Price Sensitive	Cleared DEC Bid	Total Load	Total Load	Total Load	Total Load Minus Cleared DEC Bid
Average	74,637	817	10,709	86,162	77,897	8,265	(2,444)
Median	74,428	794	10,604	86,159	77,407	8,752	(1,851)
Standard deviation	10,649	189	2,015	12,246	11,187	1,059	(957)
Peak average	80,787	903	11,937	93,627	84,347	9,280	(2,658)
Peak median	79,566	883	11,824	92,727	83,533	9,194	(2,630)
Peak standard deviation	8,124	180	1,587	8,732	8,523	209	(1,378)
Off peak average	69,130	739	9,608	79,478	72,122	7,356	(2,253)
Off peak median	68,602	713	9,488	78,804	71,477	7,327	(2,160)
Off peak standard deviation	9,576	160	1,697	11,020	10,081	939	(758)





Figure 2-9 Day-ahead and real-time loads (Average hourly volumes): January through April 2011 (See 2010 SOM, Figure 2-9)

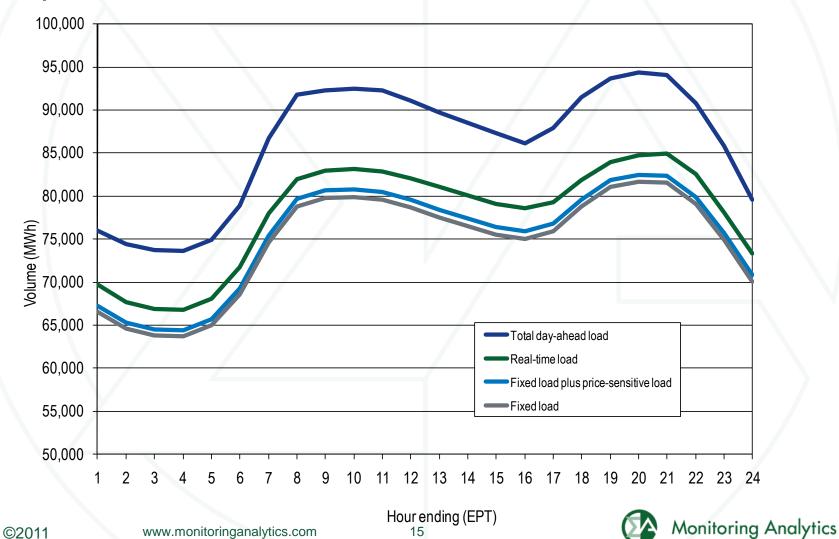




Table 2-31 Day-ahead and real-time generation (MWh): January through April 2011 (See 2010 SOM, Table 2-33)

		Day Ahead	Cleared	Real Time	Average	Difference Cleared
	Cleared Generation	Cleared INC Offer	Generation Plus INC Offer	Generation	Cleared Generation	Generation Plus INC Offer
Average	81,548	7,766	89,314			8,749
Median	81,543	7,700	89,325	80,237		9,088
Standard deviation	11,881	1,147	12,522	10,918	963	1,604
Peak average	88,643	8,418	97,061	86,992	1,651	10,069
Peak median	87,855	8,247	95,998	86,362	1,493	9,636
Peak standard deviation	8,548	993	8,915	8,261	286	654
Off peak average	75,196	7,182	82,378	74,811	385	7,567
Off peak median	74,452	7,149	81,691	74,189	263	7,502
Off peak standard deviation	10,805	943	11,145	9,734	1,070	1,411





Figure 2-11 Day-ahead and real-time generation (Average hourly volumes): January through April 2011 (See 2010 SOM, Figure 2-11)

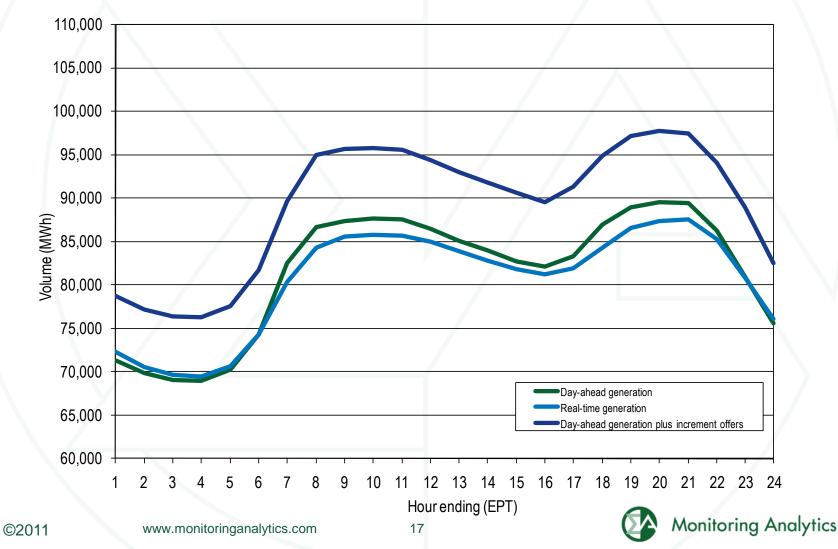




Table 2-37 PJM real-time, annual, load-weighted, average LMP (Dollars per MWh): Calendar years 1998 through April 2011 (See 2010 SOM, Table 2-38)

	Real-Time, Load	l-Weighted, A	verage LMP	Year-to-Year Change			
			Standard			Standard	
	Average	Median	Deviation	Average	Median	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	\$48.35	\$39.13	\$28.90	23.8%	14.3%	58.7%	
2011	\$46.03	\$38.92	\$23.33	(4.8%)	(0.5%)	(19.3%)	



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Table 2-38 PJM real-time, annual, load-weighted, average LMP (Dollars per MWh): January through April 2007 through 2011 (See 2010 SOM, Table 2-38)

	Real-Time, Load-Weighted, Average LMP			Year-to-Year Change			
	Standard				Standard		
	Average	Median	Deviation	Average	Median	Deviation	
2007 (Jan - Apr)	\$58.30	\$52.39	\$32.81	NA	NA	NA	
2008 (Jan - Apr)	\$69.57	\$61.20	\$35.40	19.3%	16.8%	7.9%	
2009 (Jan - Apr)	\$46.31	\$39.46	\$22.15	(33.4%)	(35.5%)	(37.4%)	
2010 (Jan - Apr)	\$44.14	\$38.04	\$21.68	(4.7%)	(3.6%)	(2.1%)	
2011 (Jan - Apr)	\$46.03	\$38.92	\$23.33	4.3%	2.3%	7.6%	

Figure 2-14 PJM real-time, monthly, load-weighted, average LMP: Calendar years 2007 through April 2011 (See 2010 SOM, Figure 2-14)

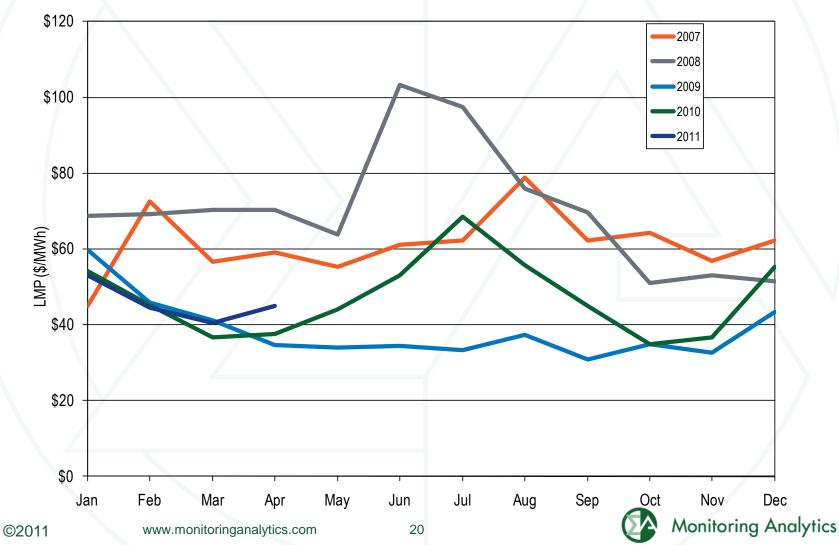


Figure 2-15 Spot average fuel price comparison: Calendar years 2010 through April 2011 (See 2010 SOM, Table 2-15)

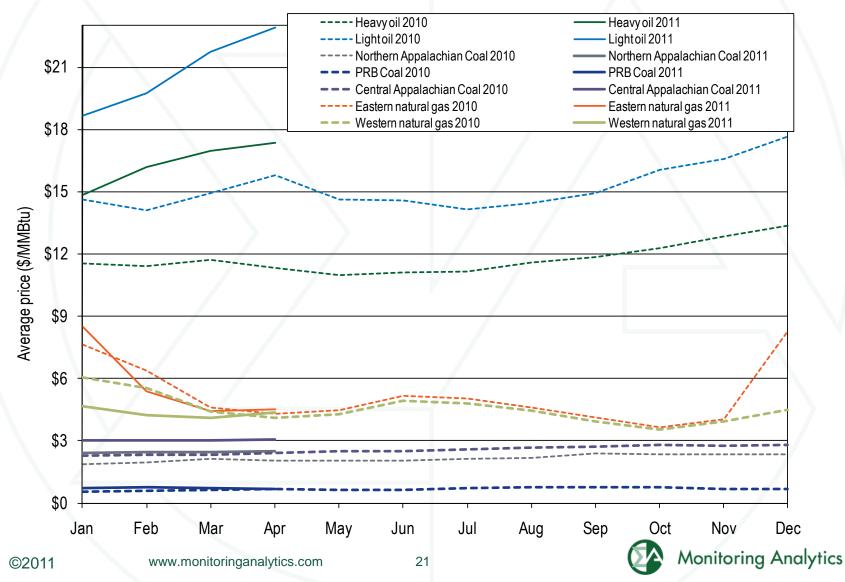




Table 2-47 PJM day-ahead, load-weighted, average LMP (Dollars per MWh): Calendar years 2000 through April 2011 (See 2010 SOM, Table 2-46)

	Day-Ahead, Load	Day-Ahead, Load-Weighted, Average LMP			Year-to-Year Change			
			Standard			Standard		
	Average	Median	Deviation	Average	Median	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	\$62.50	\$54.74	\$31.72	45.8%	30.4%	94.3%		
2006	\$51.33	\$46.72	\$26.45	(17.9%)	(14.6%)	(16.6%)		
2007	\$57.88	\$55.91	\$25.02	12.8%	19.7%	(5.4%)		
2008	\$70.25	\$62.91	\$33.14	21.4%	12.5%	32.4%		
2009	\$38.82	\$36.67	\$14.03	(44.7%)	(41.7%)	(57.7%)		
2010	\$47.65	\$42.06	\$20.59	22.7%	14.7%	46.8%		
2011	\$45.96	\$42.31	\$16.47	(3.6%)	0.6%	(20.0%)		



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Table 2-48 PJM day-ahead, load-weighted, average LMP (Dollars per MWh): January through April 2007 through 2011 (See 2010 SOM, Table 2-46)

	Day-Ahead, Loa	d-Weighted, A	verage LMP	Year-to-Year Change			
			Standard			Standard	
	Average	Median	Deviation	Average	Median	Deviation	
2007 (Jan - Apr)	\$55.08	\$53.07	\$22.28	NA	NA	NA	
2008 (Jan - Apr)	\$68.81	\$66.89	\$23.71	24.9%	26.0%	6.4%	
2009 (Jan - Apr)	\$46.06	\$41.45	\$17.10	(33.1%)	(38.0%)	(27.9%)	
2010 (Jan - Apr)	\$45.41	\$41.78	\$15.80	(1.4%)	0.8%	(7.6%)	
2011 (Jan - Apr)	\$45.96	\$42.31	\$16.47	1.2%	1.3%	4.2%	





Figure 2-17 Day-ahead, monthly, load-weighted, average LMP: Calendar years 2007 through April 2011 (See 2010 SOM, Table 2-17)

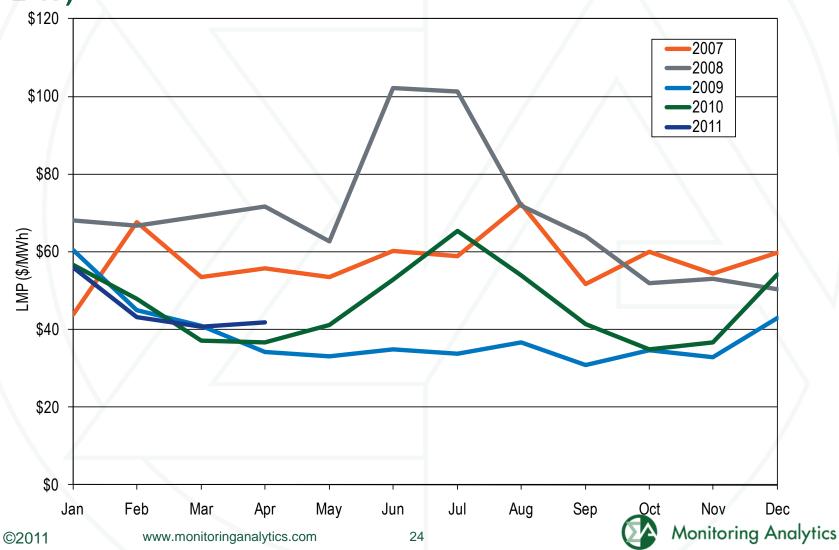




Table 2-63 Monthly volume of cleared and submitted INCs, DECs: January through April 2011 (See 2010 SOM, Table 2-61)

		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	8,137	14,299	218	1,077	11,135	17,917	224	963
Feb	8,532	16,263	215	1,672	11,076	17,355	230	1,034
Mar	7,230	13,164	201	1,059	10,435	16,343	219	982
Apr	7,222	12,516	185	984	10,211	16,199	202	846
May								
Jun								
Jul								
Aug				<i>v</i>				
Sep								
Oct								
Nov								
Dec								
Annual	7,766	14,018	205	1,188	10,709	16,949	219	955





Table 2-72 Monthly average percentage of real-time self-supply load, bilateral-supply load and spot-supply load based on parent companies: Calendar years 2010 through April 2011 (See 2010 SOM, Table 2-70)

		2010			2011		Difference in	n Percentag	e Points
	Bilateral		Self-	Bilateral			Bilateral		Self-
	Contract	Spot	Supply	Contract	Spot	Self-Supply	Contract	Spot	Supply
Jan	12.0%	17.4%	70.5%	9.3%	28.8%	61.9%	(2.7%)	11.4%	(8.6%)
Feb	13.5%	18.1%	68.4%	10.9%	27.9%	61.2%	(2.6%)	9.8%	(7.2%)
Mar	12.8%	18.2%	68.9%	10.4%	29.3%	60.3%	(2.5%)	11.1%	(8.6%)
Apr	12.6%	19.3%	68.1%	10.7%	25.3%	64.1%	(1.9%)	6.0%	(4.1%)
May	11.6%	19.9%	68.5%						
Jun	10.4%	19.0%	70.5%						
Jul	9.8%	19.5%	70.7%						
Aug	10.6%	20.5%	68.9%						
Sep	12.0%	22.3%	65.7%						
Oct	13.0%	25.1%	61.9%						
Nov	12.8%	22.7%	64.5%						
Dec	11.5%	21.8%	66.7%						
Annual	11.8%	20.2%	68.0%	10.3%	27.9%	61.8%	(1.5%)	7.7%	(6.2%)







Table 2-73 Monthly average percentage of day-ahead selfsupply load, bilateral supply load, and spot-supply load based on parent companies: Calendar years 2010 through April 2011 (See 2010 SOM, Table 2-71)

		2010			2011		Difference in	Percentag	e Points
	Bilateral		Self-	Bilateral		Self-	Bilateral		Self-
	Contract	Spot	Supply	Contract	Spot	Supply	Contract	Spot	Supply
Jan	4.6%	17.8%	77.6%	4.7%	23.7%	71.6%	0.1%	5.9%	(6.0%)
Feb	4.6%	18.4%	77.0%	5.4%	23.7%	70.9%	0.8%	5.3%	(6.1%)
Mar	4.8%	18.4%	76.8%	5.8%	24.3%	70.0%	1.0%	5.8%	(6.8%)
Apr	4.9%	19.1%	76.0%	6.1%	23.8%	70.1%	1.2%	4.7%	(5.9%)
May	6.6%	19.0%	74.4%						
Jun	4.6%	18.6%	76.7%						
Jul	4.7%	18.6%	76.6%						
Aug	4.8%	19.3%	75.9%						
Sep	4.6%	20.7%	74.8%						
Oct	4.9%	22.7%	72.4%						
Nov	4.9%	20.7%	74.4%						
Dec	4.6%	19.2%	76.2%						
Annual	4.9%	19.3%	75.8%	5.4%	23.9%	70.7%	0.6%	4.6%	(5.1%)



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Table 3-22 PJM installed capacity (By fuel source): January 1, January 31, February 28, and March 31, 2011 (See 2010 SOM, Table 3-42)

	1-Jan-11		31-Jan-1	1	28-Feb-′	11	31-Mar-′	1	30-Apr-11	
	MW	Percent								
Coal	67,986.0	40.9%	67,986.0	40.9%	67,966.1	40.8%	67,979.2	40.9%	67,888.3	40.8%
Gas	47,736.6	28.7%	47,735.2	28.7%	47,726.0	28.7%	47,750.0	28.7%	47,751.2	28.7%
Hydroelectric	7,954.5	4.8%	8,020.5	4.8%	8,018.4	4.8%	8,018.4	4.8%	8,018.4	4.8%
Nuclear	30,552.2	18.4%	30,459.2	18.3%	30,732.2	18.5%	30,457.2	18.3%	30,745.2	18.5%
Oil	10,949.5	6.6%	10,854.5	6.5%	10,854.1	6.5%	10,854.1	6.5%	10,854.1	6.5%
Solar	0.0	0.0%	1.9	0.0%	1.9	0.0%	1.9	0.0%	1.9	0.0%
Solid waste	680.1	0.4%	680.1	0.4%	680.1	0.4%	680.1	0.4%	680.1	0.4%
Wind	551.3	0.3%	551.3	0.3%	551.3	0.3%	551.3	0.3%	551.3	0.3%
Total	166,410.2	100.0%	166,288.7	100.0%	166,530.1	100.0%	166,292.2	100.0%	166,490.5	100.0%





Table 3-23 PJM generation (By fuel source (GWh)): January through April 2010 and 2011 (See 2010 SOM, Table 3-43)

	2	010 (Jan-Apr)		2011 (Jan-Apr)		
		GWh	Percent	GWh	Percent	Change in Output
Coal		122,340.0	52.6%	110,672.1	47.1%	(9.5%)
	Standard Coal	118,622.5	51.0%	106,870.9	45.5%	0.0%
	Waste Coal	3,717.5	1.6%	3,801.2	1.6%	0.0%
Nuclear		82,285.3	35.4%	84,076.8	35.8%	2.2%
Gas		17,584.7	7.6%	28,830.9	12.3%	64.0%
	Natural Gas	17,073.0	7.3%	28,279.5	12.0%	65.6%
	Landfill Gas	511.6	0.2%	551.4	0.2%	7.8%
	Biomass Gas	0.1	0.0%	0.0	0.0%	(68.3%)
Hydroele	ectric	5,541.8	2.4%	4,970.3	2.1%	(10.3%)
Wind		3,039.6	1.3%	4,550.6	1.9%	49.7%
Waste		1,653.5	0.7%	1,732.0	0.7%	4.7%
	Solid Waste	1,294.5	0.6%	1,310.1	0.6%	1.2%
	Miscellaneous	359.0	0.2%	421.9	0.2%	17.5%
Oil		193.4	0.1%	287.5	0.1%	48.7%
	Heavy Oil	150.1	0.1%	243.6	0.1%	62.3%
	Light Oil	38.2	0.0%	39.8	0.0%	4.3%
	Diesel	4.3	0.0%	2.9	0.0%	(33.1%)
	Kerosene	0.8	0.0%	1.2	0.0%	50.7%
	Jet Oil	0.0	0.0%	0.0	0.0%	(59.5%)
Solar		1.2	0.0%	11.1	0.0%	836.3%
Battery		0.1	0.0%	0.1	0.0%	5.4%
Total		232,639.7	100.0%	235,131.6	100.0%	1.1%





Table 3-24 PJM capacity factor (By unit type (GWh)); January through April 2010 and 2011 (New table)

	2010 (Jan-Apr)		2011 (Jan-Apr)	
Unit Type	Generation (GWh)	Capacity Factor	Generation (GWh)	Capacity Factor
Battery	0.1	4.8%	0.1	5.1%
Combined Cycle	18,851.4	29.2%	27,277.5	41.3%
Combustion Turbine	796.7	1.0%	658.5	0.8%
Diesel	478.8	23.6%	486.5	23.8%
Nuclear	82,285.3	90.8%	84,076.8	92.8%
Pumped Storage Hydro	2,282.5	14.4%	2,131.7	13.5%
Run of River Hydro	3,432.0	51.2%	2,838.6	42.4%
Solar	1.2	41.1%	11.1	15.3%
Steam	141,441.0	60.6%	113,043.1	48.6%
Wind	3,102.8	33.1%	4,550.6	36.5%



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Table 3-49 Monthly operating reserve charges: Calendar years 2010 and 2011 (See SOM 2010, Table 3-72)

		2010 Char	ges			2011 Char	rges	
		Synchronous				Synchronous		
	Day-Ahead	Condensing	Balancing	Total	Day-Ahead	Condensing	Balancing	Total
Jan	\$10,281,351	\$50,022	\$40,472,496	\$50,803,869	\$12,373,099	\$110,095	\$47,862,223	\$60,345,417
Feb	\$11,425,494	\$14,715	\$22,346,529	\$33,786,738	\$8,940,203	\$139,287	\$26,361,087	\$35,440,577
Mar	\$8,836,886	\$122,817	\$16,823,288	\$25,782,991	\$6,837,719	\$66,032	\$24,219,868	\$31,123,619
Apr	\$7,633,141	\$93,253	\$22,870,495	\$30,596,889	\$4,405,102	\$13,011	\$18,453,276	\$22,871,388
Мау	\$5,127,307	\$131,600	\$39,144,404	\$44,403,311				
Jun	\$3,511,264	\$33,923	\$56,989,229	\$60,534,415				
Jul	\$4,601,788	\$88,136	\$63,190,853	\$67,880,778				
Aug	\$3,622,670	\$66,535	\$41,690,612	\$45,379,817				
Sep	\$8,433,892	\$27,971	\$40,637,086	\$49,098,949				
Oct	\$7,719,744	\$1,543	\$30,433,986	\$38,155,273				
Nov	\$6,556,715	\$29,674	\$20,020,310	\$26,606,698				
Dec	\$12,951,879	\$59,954	\$83,021,125	\$96,032,958				
Total	\$30,543,731	\$187,554	\$79,642,313	\$110,373,599	\$32,556,123	\$328,424	\$116,896,455	\$149,781,002
Share of Annual Charges	27.7%	0.2%	72.2%	100.0%	21.7%	0.2%	78.0%	100.0%





Table 3-50 Regional balancing charges allocation: January through April 2011 (See SOM 2010, Table 3-73)

	Reli	ability Charge	s		Deviatior	n Charges		
	Real-Time	Real-Time	Reliability	Demand	Supply	Generator	Deviations	Total
	Load	Exports	Total	Deviations	Deviations	Deviations	Total	i otai
RTO	\$18,310,586	\$808,746	\$19,119,332	\$34,546,349	\$11,727,568	\$12,188,414	\$58,462,331	\$77,581,663
RIU	20.0%	0.9%	20.9%	37.7%	12.8%	13.3%	63.8%	84.7%
East	\$1,510,220	\$56,932	\$1,567,152	\$2,270,710	\$769,377	\$686,453	\$3,726,540	\$5,293,692
Easi	1.6%	0.1%	1.7%	2.5%	0.8%	0.7%	4.1%	5.8%
West	\$6,203,065	\$337,167	\$6,540,232	\$1,136,701	\$518,667	\$499,365	\$2,154,733	\$8,694,965
vvesi	6.8%	0.4%	7.1%	1.2%	0.6%	0.5%	2.4%	9.5%
Total	\$26,023,871	\$1,202,845	\$27,226,716	\$37,953,759	\$13,015,612	\$13,374,233	\$64,343,604	\$91,570,320
rolar	28.4%	1.3%	29.7%	41.4%	14.2%	14.6%	70.3%	100%





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Figure 3-11 Daily RTO reliability and deviation balancing operating reserve rates (\$/MWh): January through April 2011 (See SOM 2010, Figure 3-20)

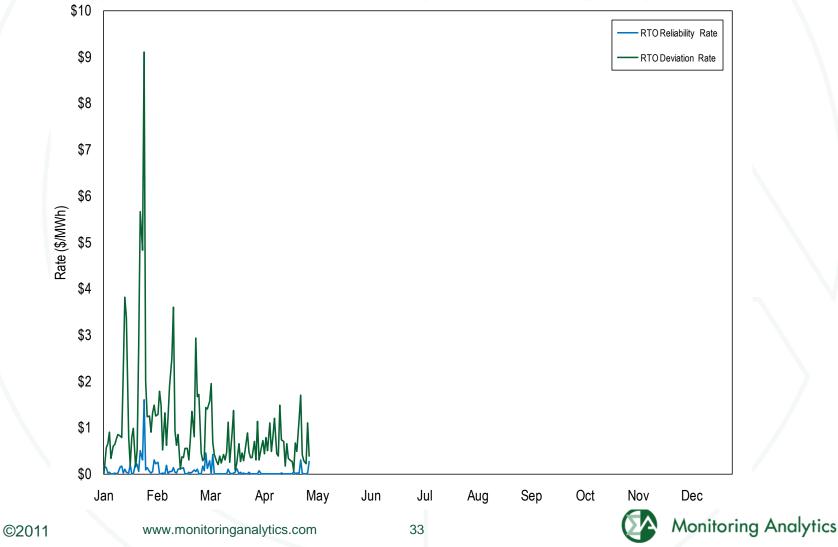


Figure 3-12 Daily regional reliability and deviation rates (\$/MWh): Calendar year 2011 (See SOM 2010, Figure 3-21)

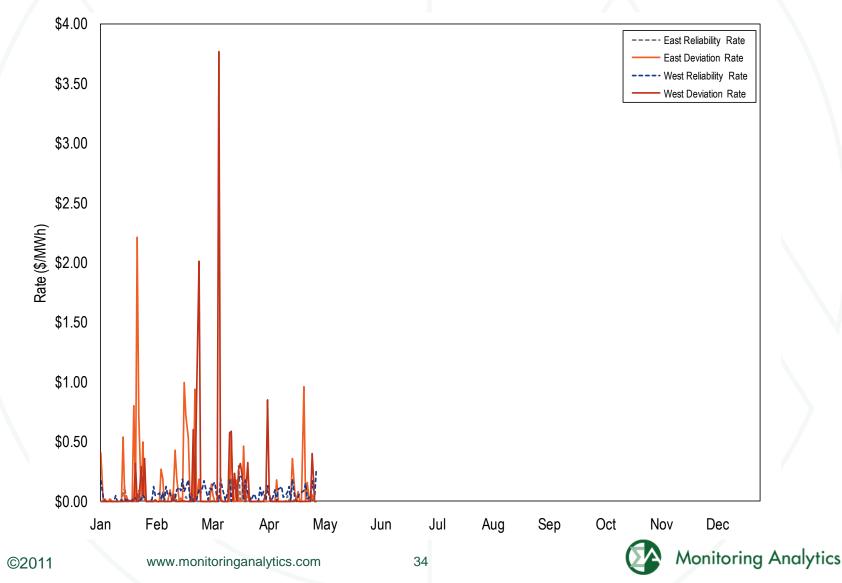




Figure 4-1 PJM real-time scheduled imports and exports: January through April 2011 (See 2010 SOM, Figure 4-1)

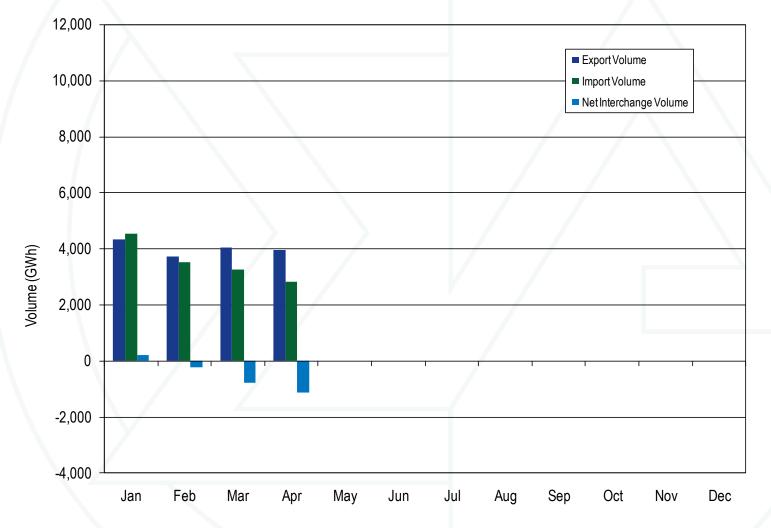










Figure 4-2 PJM day-ahead scheduled imports and exports: January through April 2011 (See 2010 SOM, Figure 4-2)

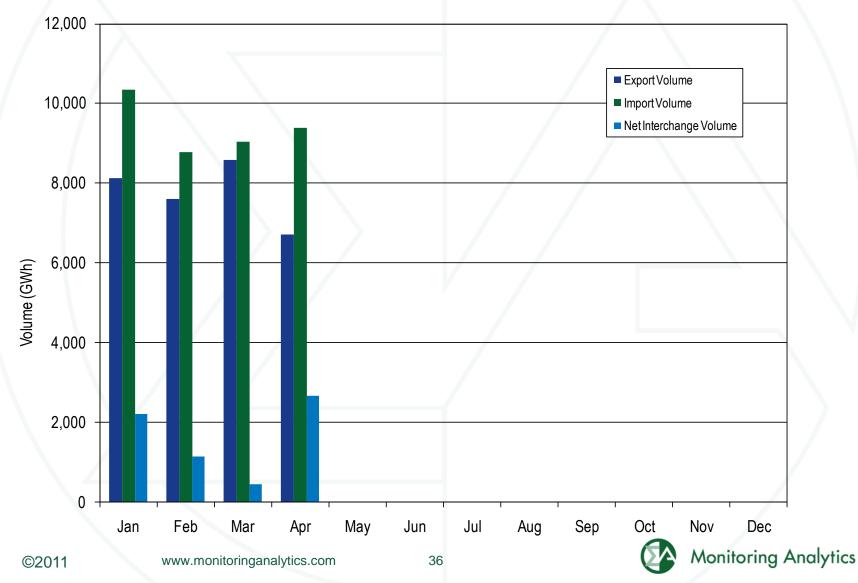
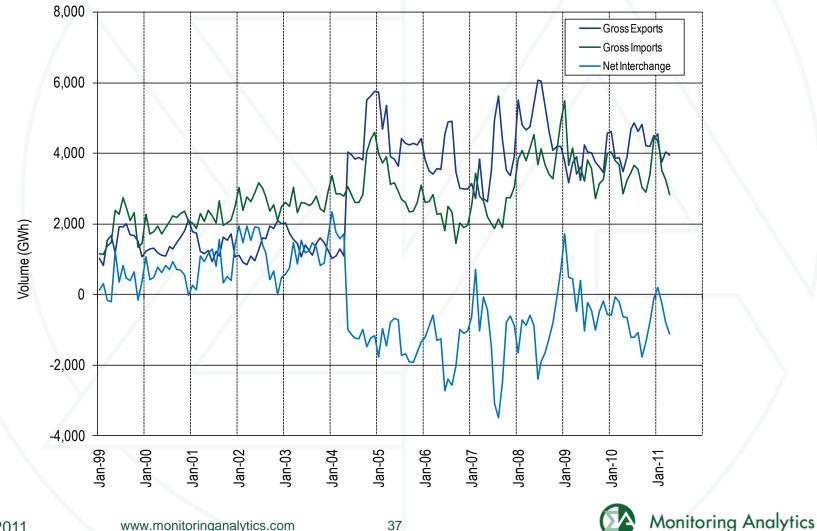




Figure 4-3 PJM scheduled import and export transaction volume history: 1999 through April 2011 (See 2010 SOM, Figure 4-3)

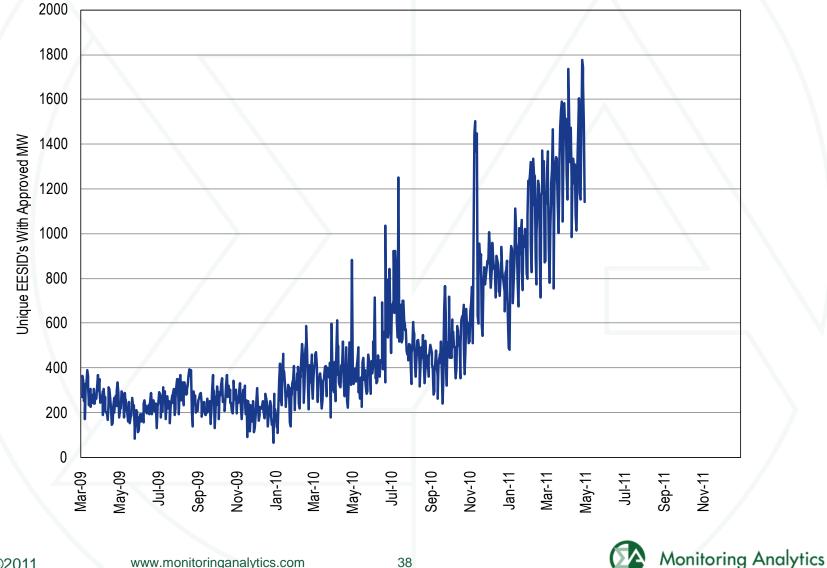


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INTERCHANGE TRANSACTIONS



Figure 4-20 Unique up-to congestion bids with approved MWh: March 2009 through April 2011 (New Figure)



CAPACITY MARKETS

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Table 5-9 Capacity prices: 2007/2008 through 2013/2014 RPM Auctions (See 2010 SOM, Table 5-14)

	RPM Clearing Price (\$ per MW-day)							
	RTO	MAAC	APS	EMAAC	SWMAAC	DPL South	PSEG North	Рерсо
2007/2008 BRA	\$40.80	\$40.80	\$40.80	\$197.67	\$188.54	\$197.67	\$197.67	\$188.54
2008/2009 BRA	\$111.92	\$111.92	\$111.92	\$148.80	\$210.11	\$148.80	\$148.80	\$210.11
2008/2009 Third Incremental Auction	\$10.00	\$10.00	\$10.00	\$10.00	\$223.85	\$10.00	\$10.00	\$223.85
2009/2010 BRA	\$102.04	\$191.32	\$191.32	\$191.32	\$237.33	\$191.32	\$191.32	\$237.33
2009/2010 Third Incremental Auction	\$40.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00	\$86.00
2010/2011 BRA	\$174.29	\$174.29	\$174.29	\$174.29	\$174.29	\$186.12	\$174.29	\$174.29
2010/2011 Third Incremental Auction	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
2011/2012 BRA	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00
2011/2012 First Incremental Auction	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00	\$55.00
2011/2012 ATSI FRR Integration Auction	\$108.89	\$108.89	\$108.89	\$108.89	\$108.89	\$108.89	\$108.89	\$108.89
2011/2012 Third Incremental Auction	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
2012/2013 BRA	\$16.46	\$133.37	\$16.46	\$139.73	\$133.37	\$222.30	\$185.00	\$133.37
2012/2013 ATSI FRR Integration Auction	\$20.46	\$20.46	\$20.46	\$20.46	\$20.46	\$20.46	\$20.46	\$20.46
2012/2013 First Incremental Auction	\$16.46	\$16.46	\$16.46	\$153.67	\$16.46	\$153.67	\$153.67	\$16.46
2013/2014 BRA	\$27.73	\$226.15	\$27.73	\$245.00	\$226.15	\$245.00	\$245.00	\$247.14



CAPACITY MARKETS

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Figure 5-1 History of capacity prices: Calendar year 1999 through 2013 (See 2010 SOM, Figure 5-1)

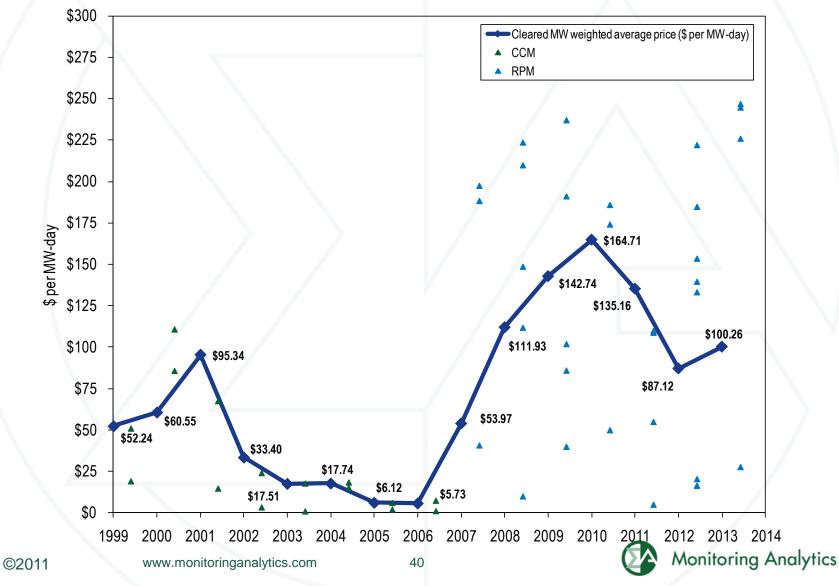
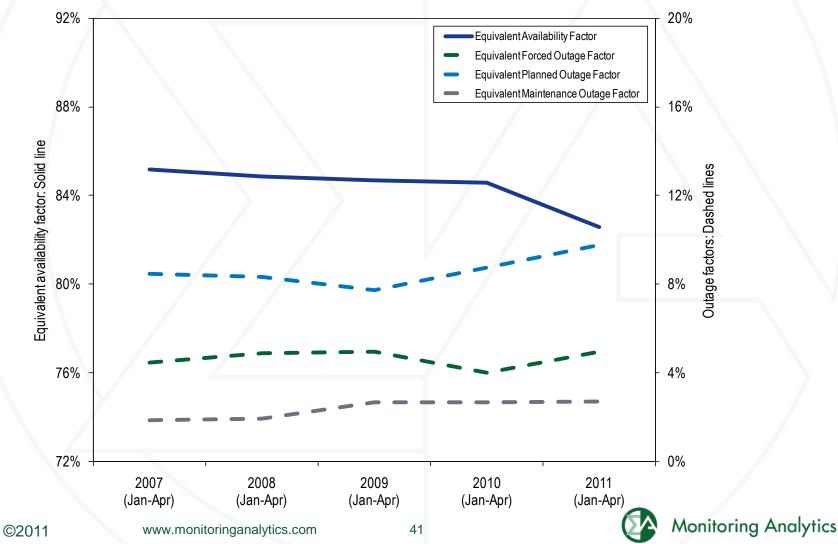


Figure 5-3 PJM equivalent outage and availability factors: Calendar years 2007 to 2011 (January through April) (See 2010 SOM, Figure 5-4)



CAPACITY MARKETS

Figure 5-5 Trends in the PJM equivalent demand forced outage rate (EFORd): Calendar years 2007 to 2011 (January through April) (See 2010 SOM, Figure 5-5)

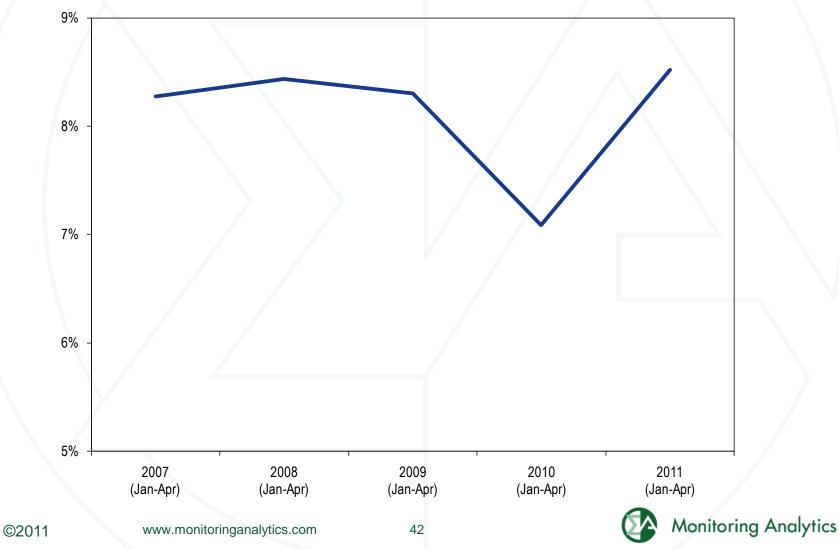




Table 6-12 Comparison of load weighted price and cost for Regulation Market, August 2005 through April 2011 (See 2010 SOM, Table 6-12)

Year	Load Weighted Regulation Market Price	Load Weighted Regulation Market Cost	Regulation Price as Percent Cost
2005	\$64.03	\$77.39	83%
2006	\$32.69	\$44.98	73%
2007	\$36.86	\$52.91	70%
2008	\$42.09	\$64.43	65%
2009	\$23.56	\$29.87	79%
2010	\$18.08	\$32.07	56%
2011	\$12.78	\$25.96	49%



Figure 6-7 Mid-Atlantic Subzone average hourly synchronized reserve required vs. Tier 2 scheduled: January through April, 2011 (See 2010 SOM, Figure 6-7)

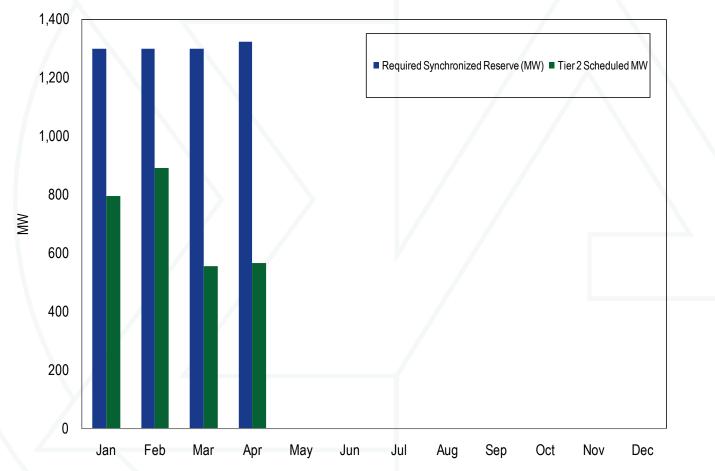
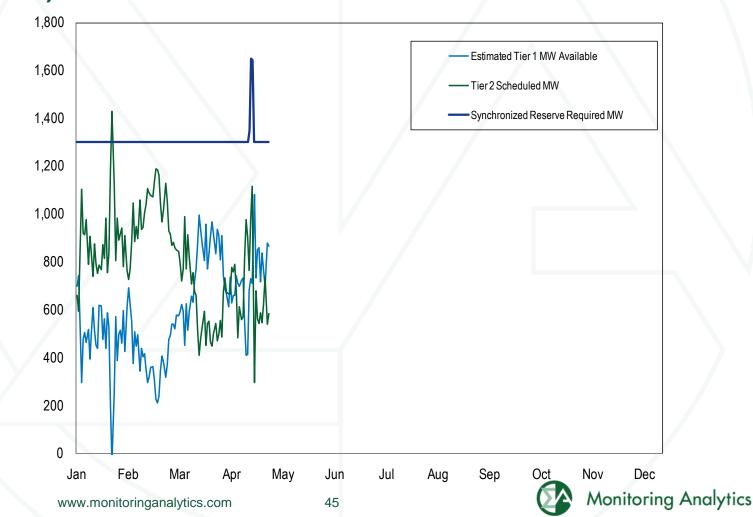


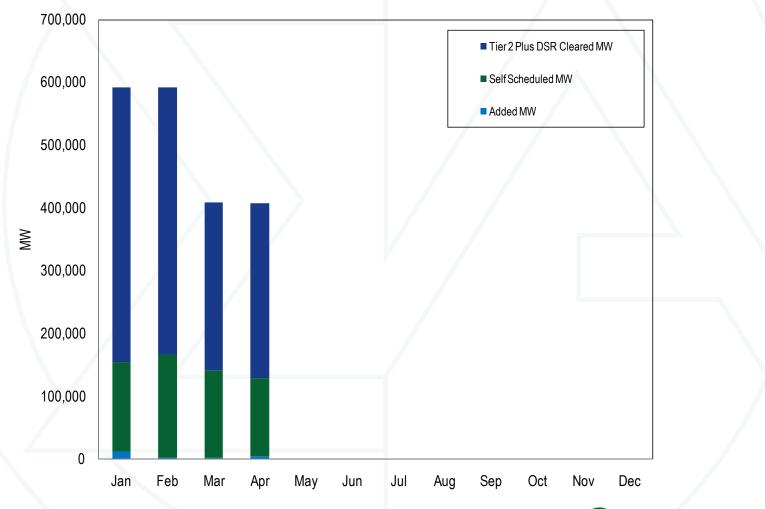


Figure 6-8 Mid-Atlantic Subzone daily average hourly synchronized reserve required, Tier 2 MW scheduled, and Tier 1 MW estimated: January through April, 2011 (See 2010 SOM, Figure 6-8)



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Figure 6-13 Tier 2 Synchronized Reserve purchases by month for the Mid-Atlantic Subzone: January through April, 2011 (See 2010 SOM, Figure 6-13)







Sector 1

Table 6-18 Comparison of load weighted price and costfor Synchronized Reserve, January 2005 through April2011 (See 2010 SOM, Table 6-18)

Year	oad Weighted. nized Reserve Market Price	Load Weighted Synchronized Reserve Cost	Synchronized Reserve Price as Percent of Cost
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	\$10.55	\$14.41	73%
2011	\$12.00	\$14.21	84%





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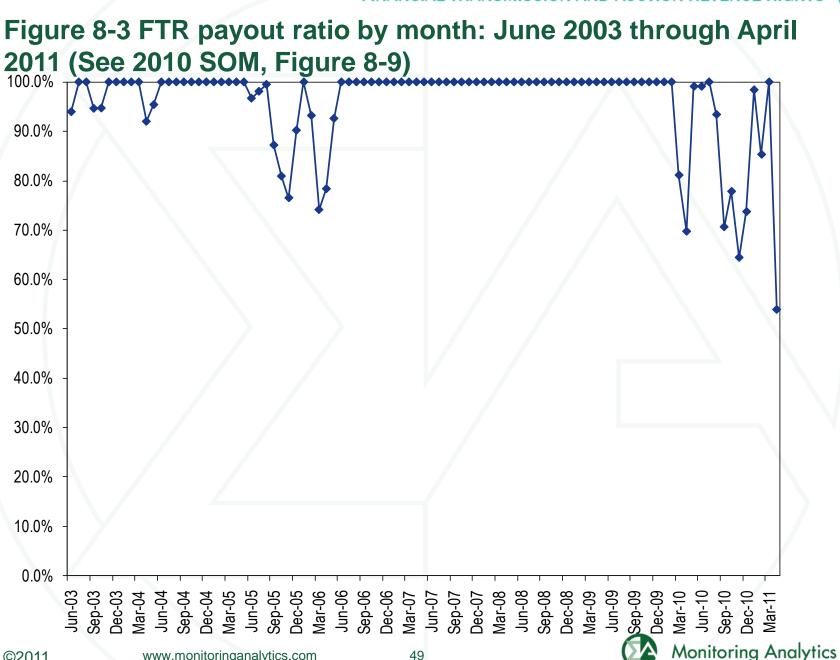
Table 8-4 Monthly Balance of Planning Period FTR Auction market volume: January through April 2011 (See 2010 SOM, Table 8-11)

Monthly Auction	Hedge Type	Trade Type	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
Jan-11	Obligations	Buy bids	189,084	1,101,808	164,743	15.0%	937,065	85.0%
		Sell offers	50,981	261,888	28,189	10.8%	233,699	89.2%
	Options	Buy bids	1,040	105,293	8,691	8.3%	96,602	91.7%
		Sell offers	2,927	43,161	12,380	28.7%	30,781	71.3%
Feb-11	Obligations	Buy bids	185,625	1,090,475	181,977	16.7%	908,497	83.3%
		Sell offers	41,609	220,079	20,957	9.5%	199,122	90.5%
	Options	Buy bids	959	93,909	9,372	10.0%	84,537	90.0%
		Sell offers	2,555	33,140	9,643	29.1%	23,497	70.9%
Mar-11	Obligations	Buy bids	192,349	1,154,132	216,165	18.7%	937,967	81.3%
		Sell offers	48,727	256,121	30,492	11.9%	225,629	88.1%
	Options	Buy bids	1,026	96,152	7,254	7.5%	88,898	92.5%
		Sell offers	2,351	41,200	10,587	25.7%	30,613	74.3%
Apr-11	Obligations	Buy bids	149,735	847,576	164,278	19.4%	683,297	80.6%
		Sell offers	37,737	220,966	22,108	10.0%	198,858	90.0%
	Options	Buy bids	919	66,008	5,387	8.2%	60,621	91.8%
		Sell offers	1,834	32,136	9,327	29.0%	22,810	71.0%
2009/2010*	Obligations	Buy bids	1,908,766	8,003,573	946,107	11.8%	7,057,466	88.2%
		Sell offers	649,057	2,337,381	181,810	7.8%	2,155,571	92.2%
	Options	Buy bids	4,904	216,423	17,194	7.9%	199,228	92.1%
		Sell offers	29,328	458,584	72,335	15.8%	386,248	84.2%
2010/2011**	Obligations	Buy bids	2,239,801	12,146,336	1,785,773	14.7%	10,360,563	85.3%
		Sell offers	681,963	3,326,778	298,026	9.0%	3,028,752	91.0%
	Options	Buy bids	15,331	1,382,660	65,051	4.7%	1,317,609	95.3%
		Sell offers	58,907	548,641	138,186	25.2%	410,455	74.8%
* Shows twelve	e months for 200	9/2010; ** Sho		ths ended 30-Ap	r-2011 for 20	10/2011		



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