

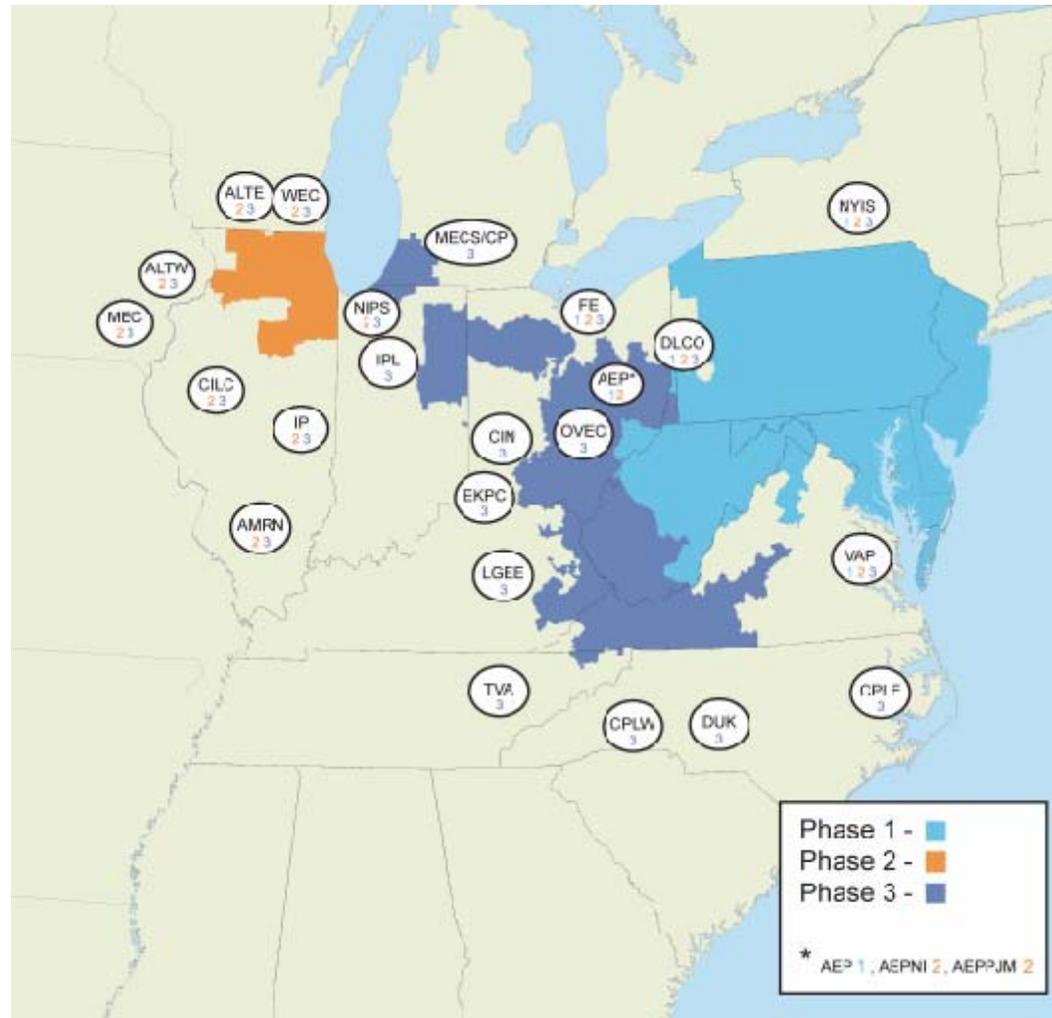


STATE OF THE MARKET REPORT 2004

Briefing
EMC
April 12, 2005

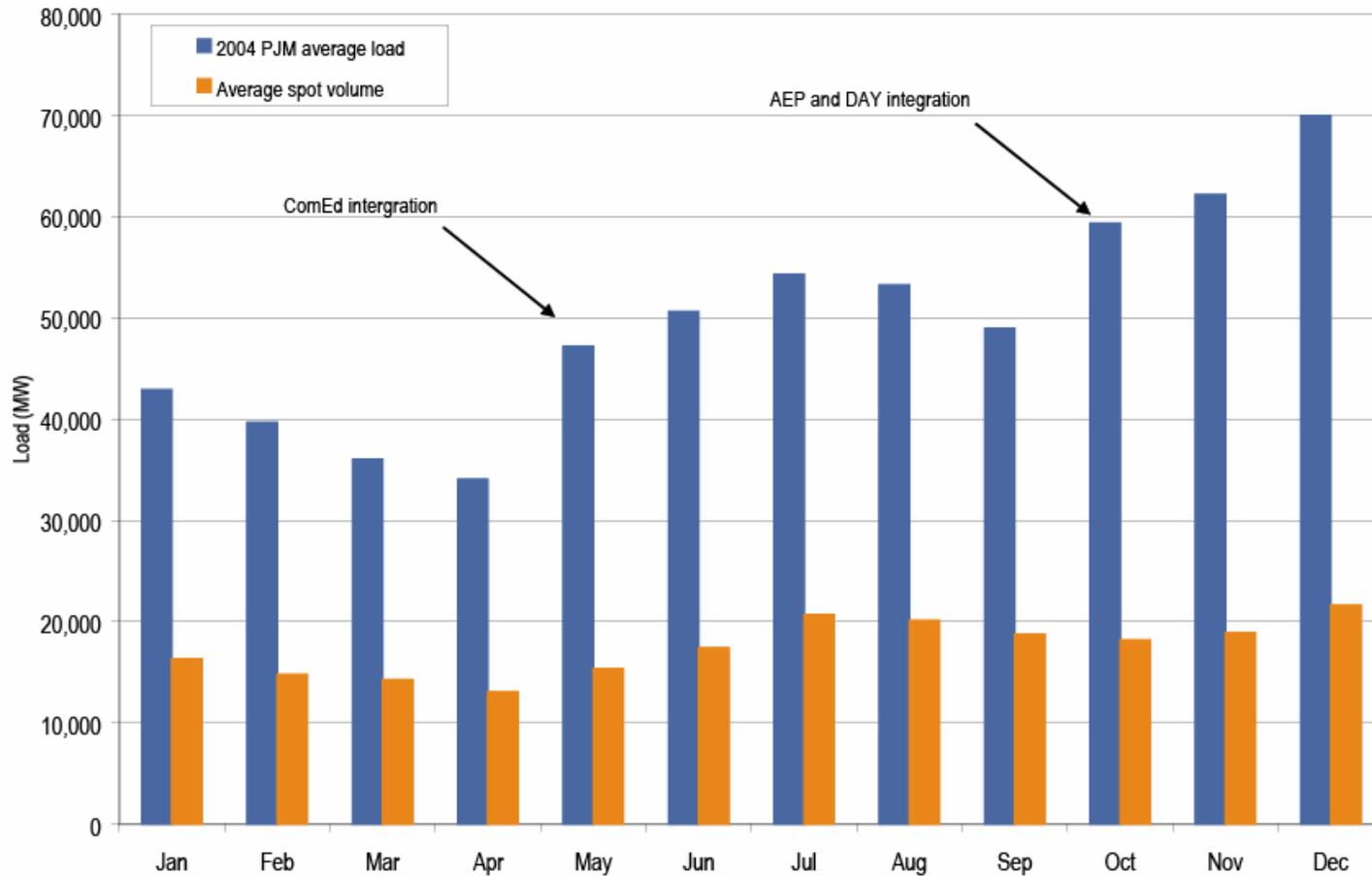
Joseph E. Bowring
Market Monitor

- **Energy Market** results were competitive
- **PJM Capacity Market** results were competitive
- **ComEd Capacity Market** results were reasonably competitive
- **Regulation market** results were competitive
 - Price based
 - Cost based
- **Spinning market** results were competitive
 - Cost based
- **FTR market** results were competitive



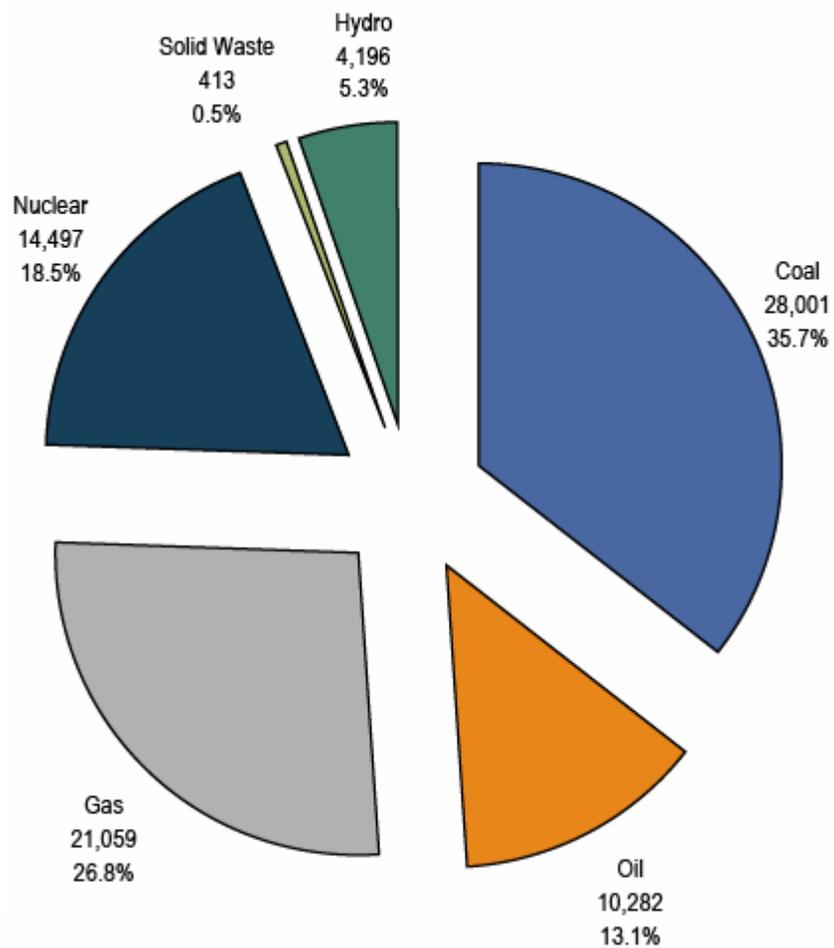


PJM average hourly load and spot market volume: Calendar year 2004



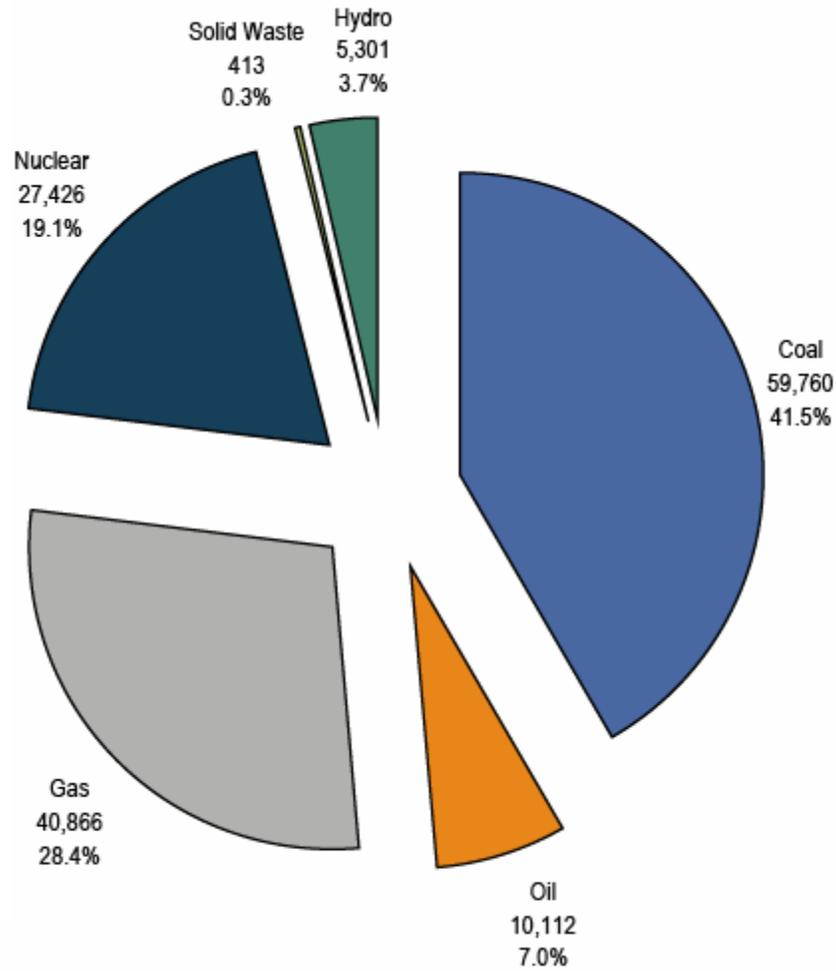


PJM capacity by fuel source: At January 1, 2004



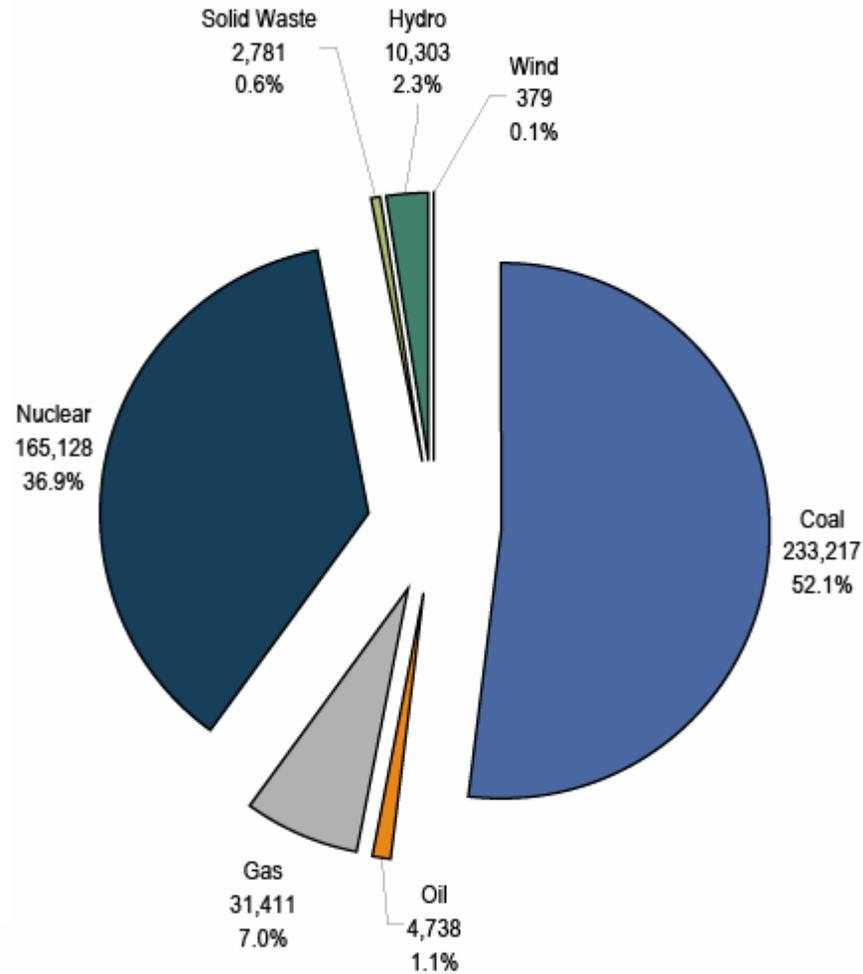


PJM capacity by fuel source: At December 31, 2004



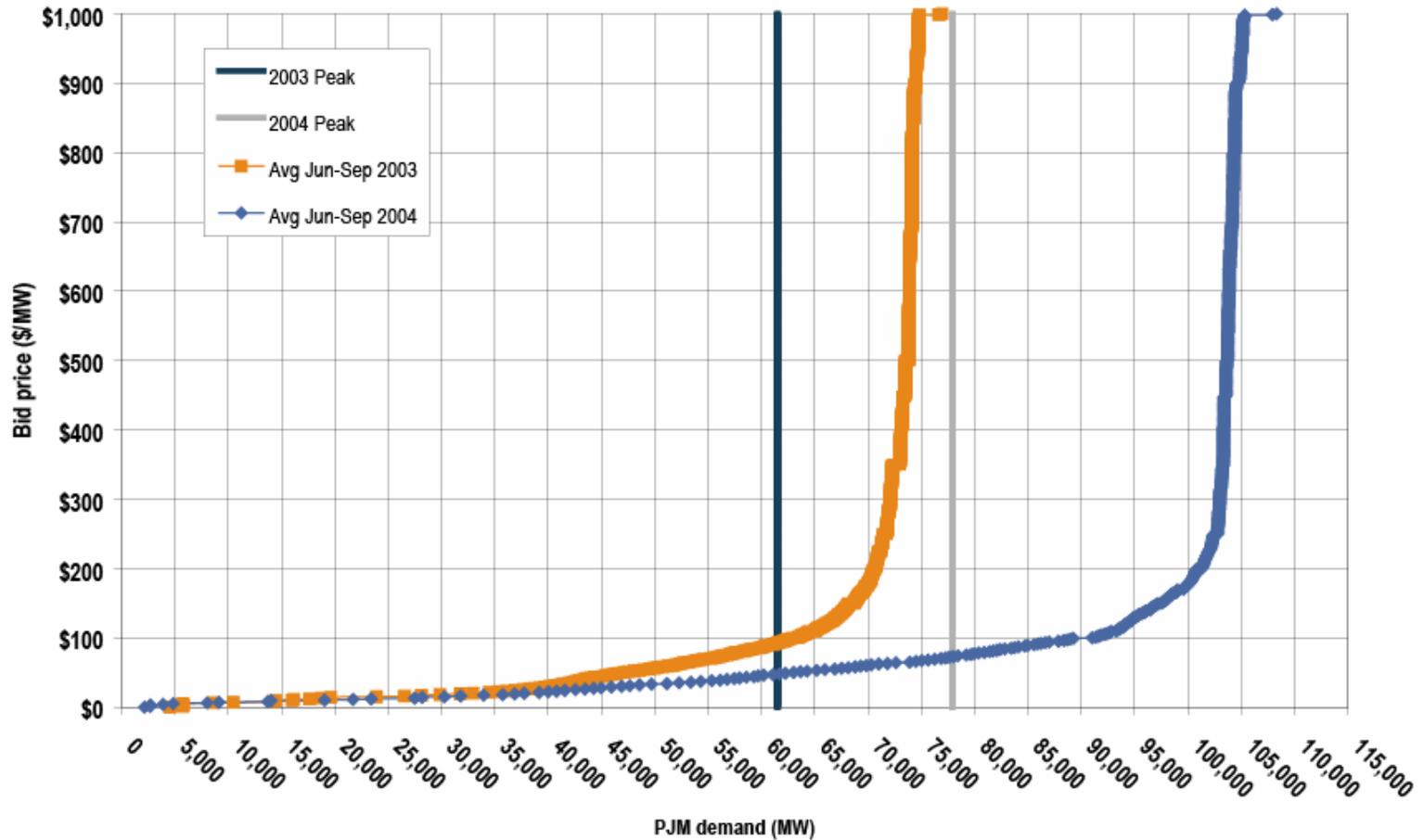


PJM generation by fuel source (GWh): Calendar year 2004



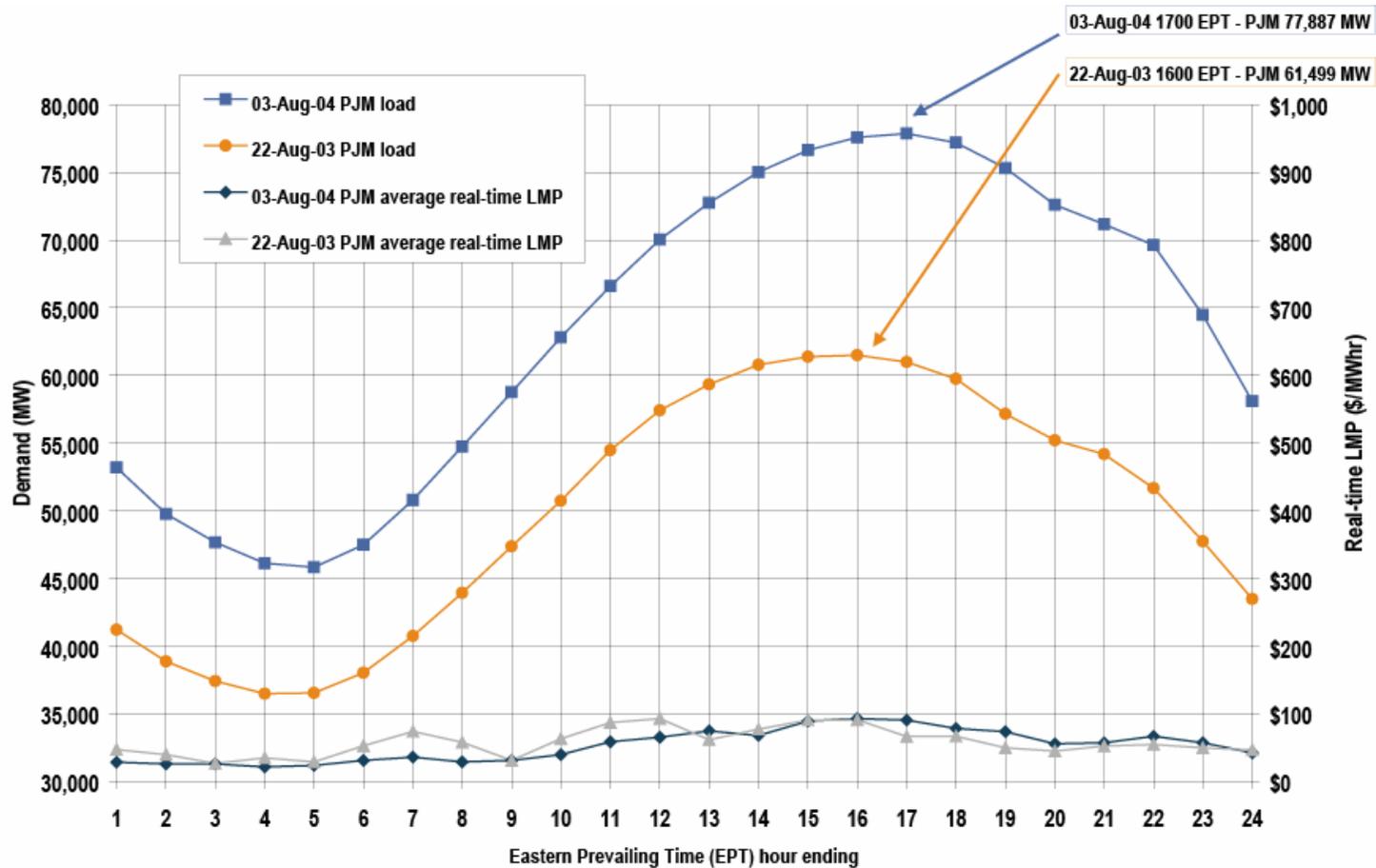


Average PJM aggregate supply curves: Summers 2003 and 2004





PJM peak-load comparison: Tuesday, August 3, 2004, and Friday, August 22, 2003



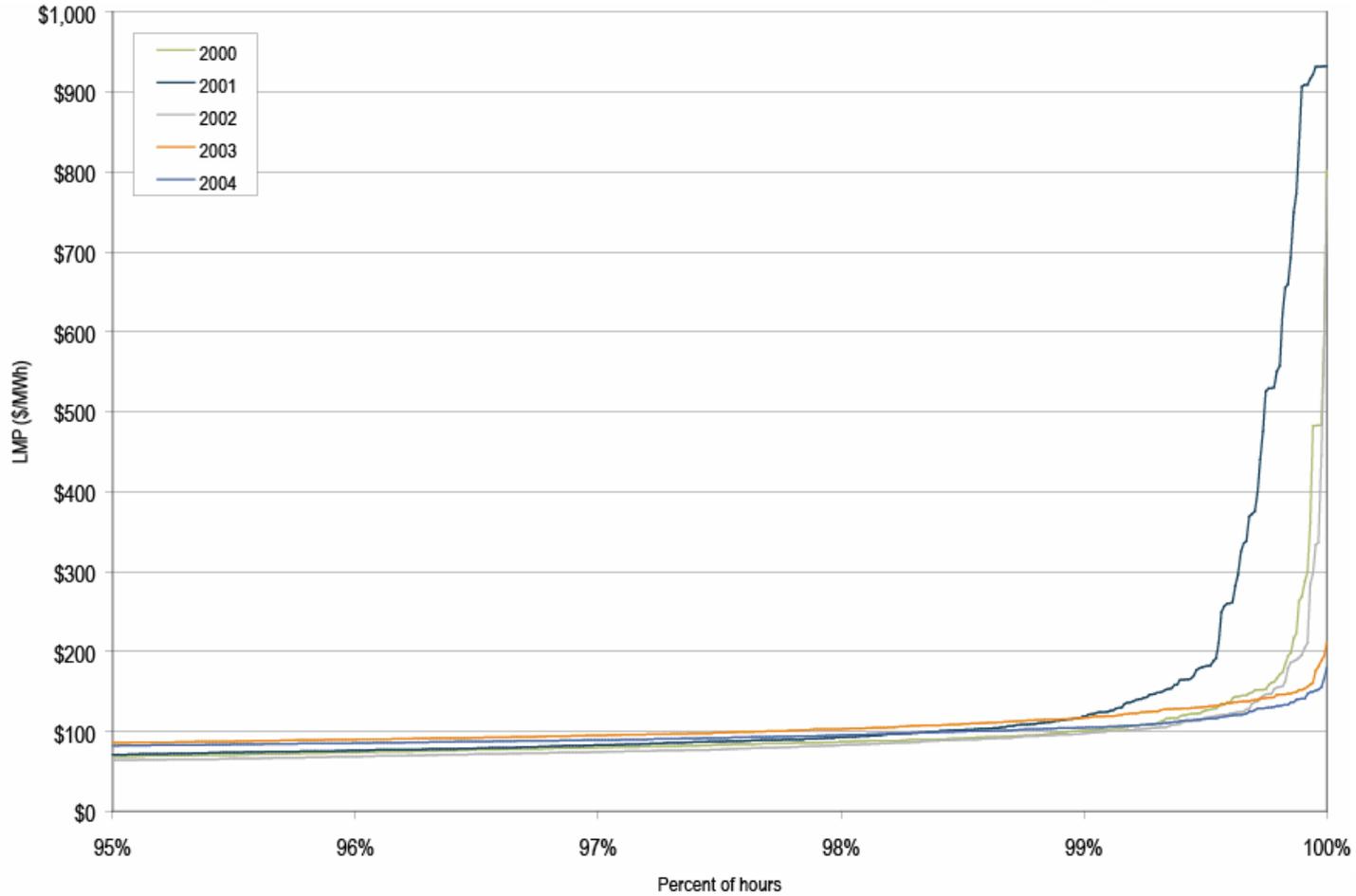


PJM average hourly LMP (Dollars per MWh):
Calendar years 1998 to 2004

	Locational Marginal Prices (LMPs)			Year-to-Year Changes		
	Average	Median	Standard Deviation	Average LMP	Median LMP	Standard Deviation
1998	\$21.72	\$16.60	\$31.45	N/A	N/A	N/A
1999	\$28.32	\$17.88	\$72.42	30.4%	7.7%	130.3%
2000	\$28.14	\$19.11	\$25.69	-0.6%	6.9%	-64.5%
2001	\$32.38	\$22.98	\$45.03	15.1%	20.3%	75.3%
2002	\$28.30	\$21.08	\$22.40	-12.6%	-8.3%	-50.3%
2003	\$38.27	\$30.79	\$24.71	35.2%	46.0%	10.3%
2004	\$42.40	\$38.30	\$21.12	10.8%	24.4%	-14.5%



Price duration curves for the PJM Real-Time Energy Market during hours above the 95th Percentile: Calendar years 2000 to 2004



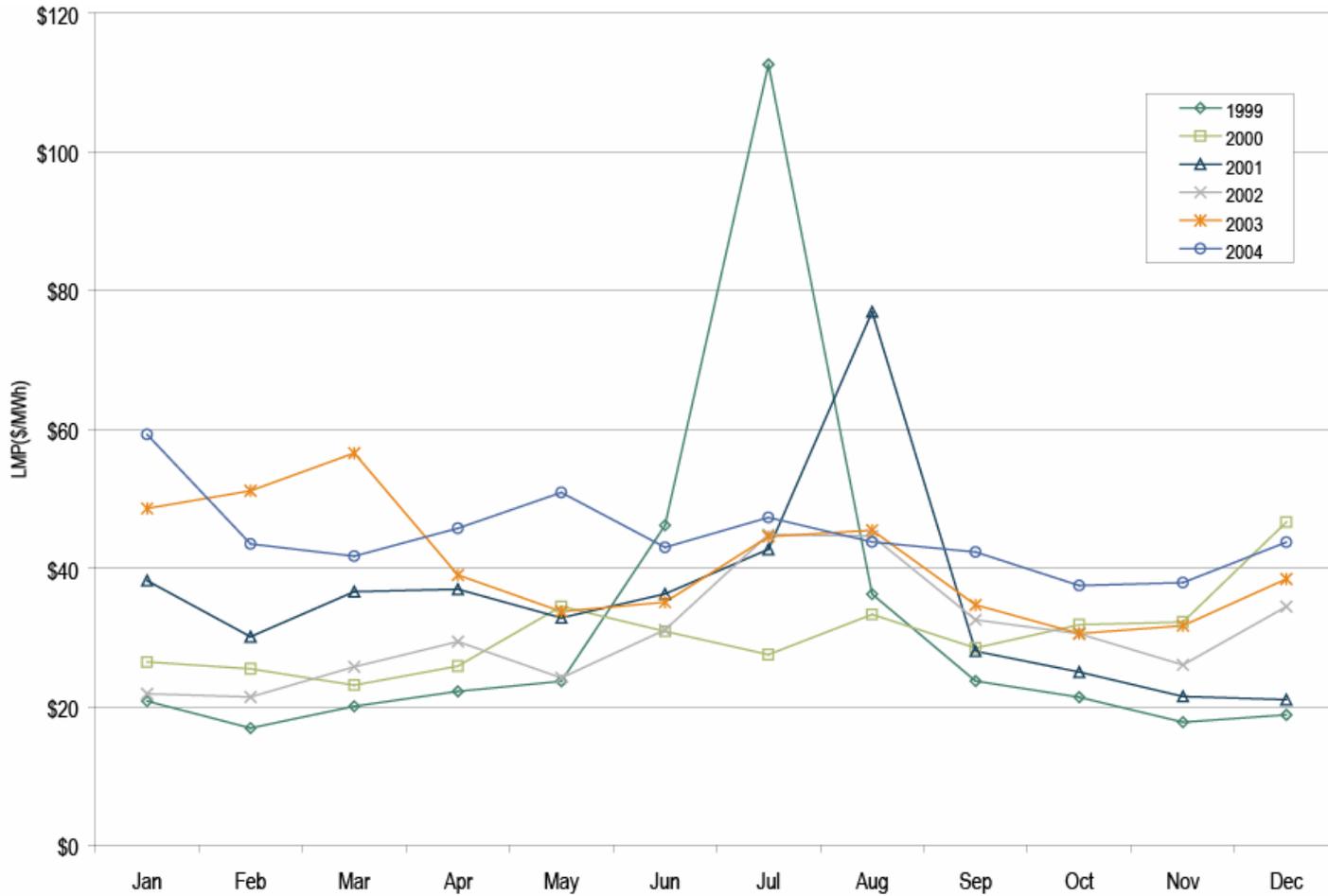


PJM load-weighted, average LMP (Dollars per MWh):
Calendar years 1998 to 2004

	Load-Weighted Average LMP			Year-to-Year Changes		
	Average	Median	Standard Deviation	Average LMP	Median LMP	Standard Deviation
1998	\$24.16	\$17.60	\$39.29	N/A	N/A	N/A
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	\$36.66	\$25.08	\$57.26	19.3%	22.3%	101.8%
2002	\$31.58	\$23.40	\$26.73	-13.9%	-6.7%	-53.3%
2003	\$41.23	\$34.95	\$25.40	30.6%	49.4%	-5.0%
2004	\$44.34	\$40.16	\$21.25	7.5%	14.9%	-16.3%



Figure 2-15 Monthly load-weighted, average LMP:
Calendar years 1999 to 2004





PJM fuel-cost-adjusted, load-weighted LMP (Dollars per MWh): Calendar years 2003 to 2004

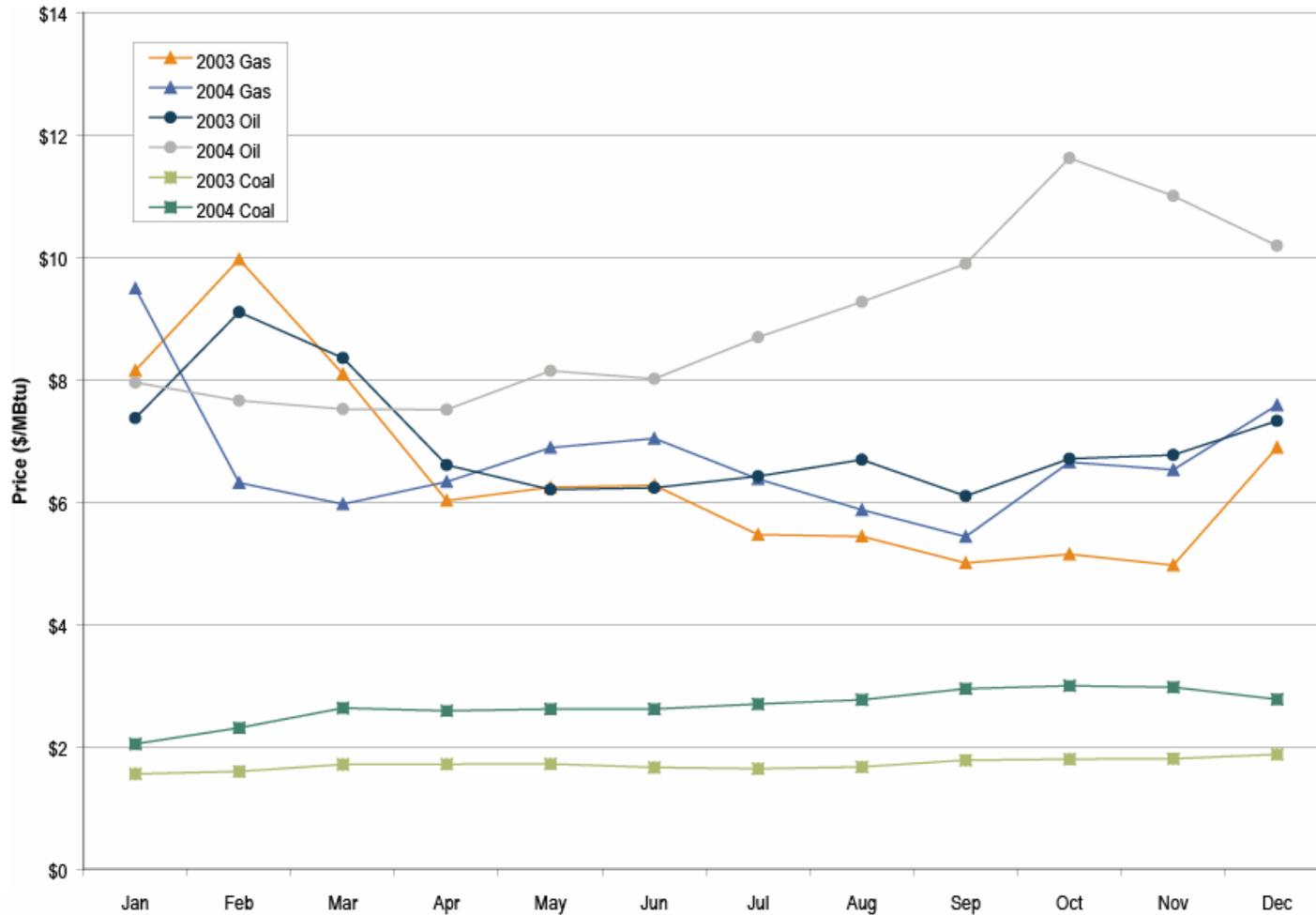
	2003	2004	Change
Average LMP	\$41.23	\$39.49	-4.2%
Median LMP	\$34.95	\$34.47	-1.4%
Standard Deviation	\$25.40	\$20.81	-18.1%

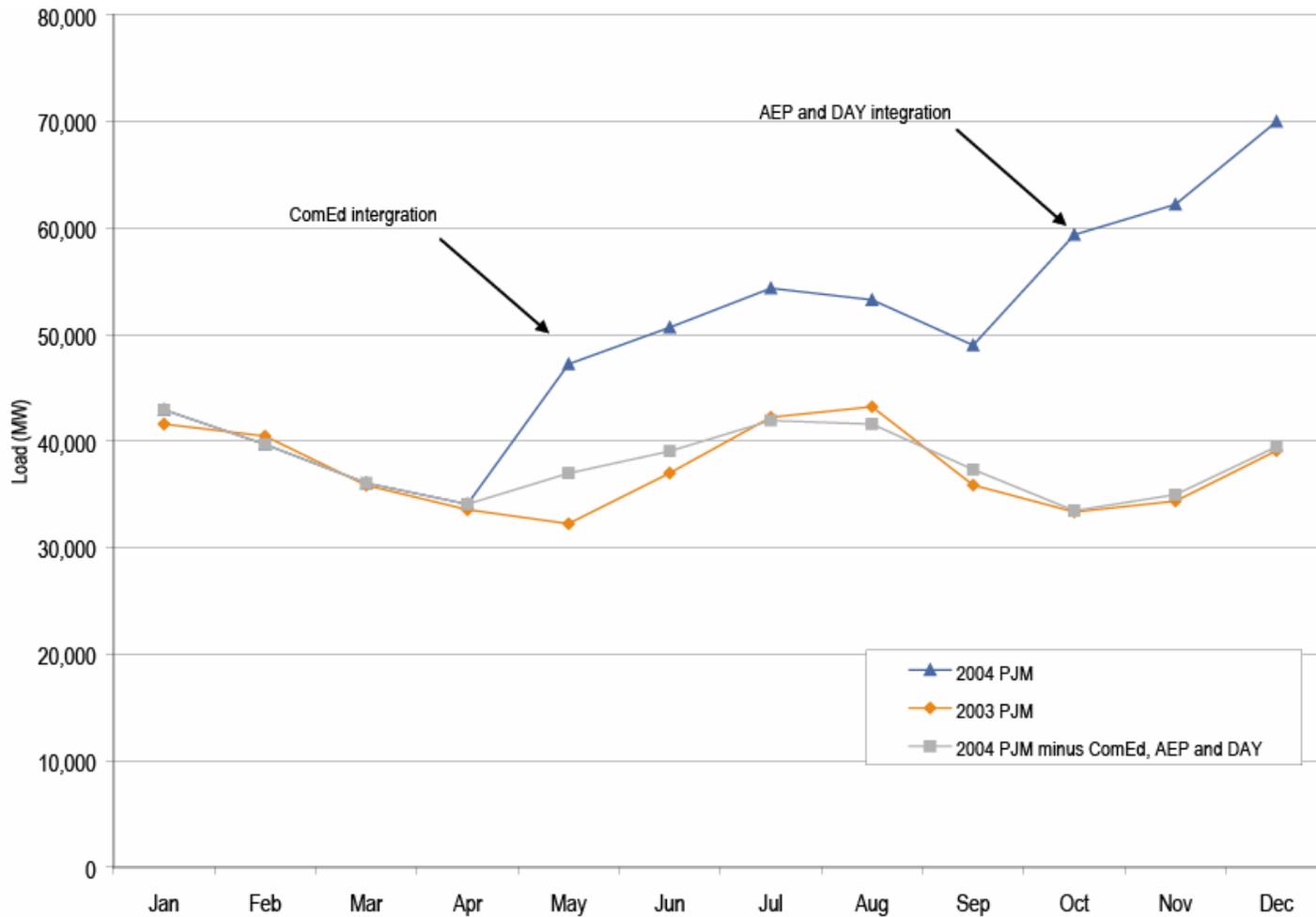


Type of fuel used by marginal units: Calendar years 2000 to 2004

Fuel Type	2000	2001	2002	2003	2004	Phase 2	
						ComEd	PJM
Coal	48%	49%	55%	52%	56%	86%	41%
Misc	0%	0%	0%	0%	0%	0%	1%
Natural gas	18%	18%	23%	29%	31%	13%	36%
Nuclear	2%	1%	0%	1%	0%	0%	0%
Petroleum	31%	32%	21%	18%	12%	0%	22%

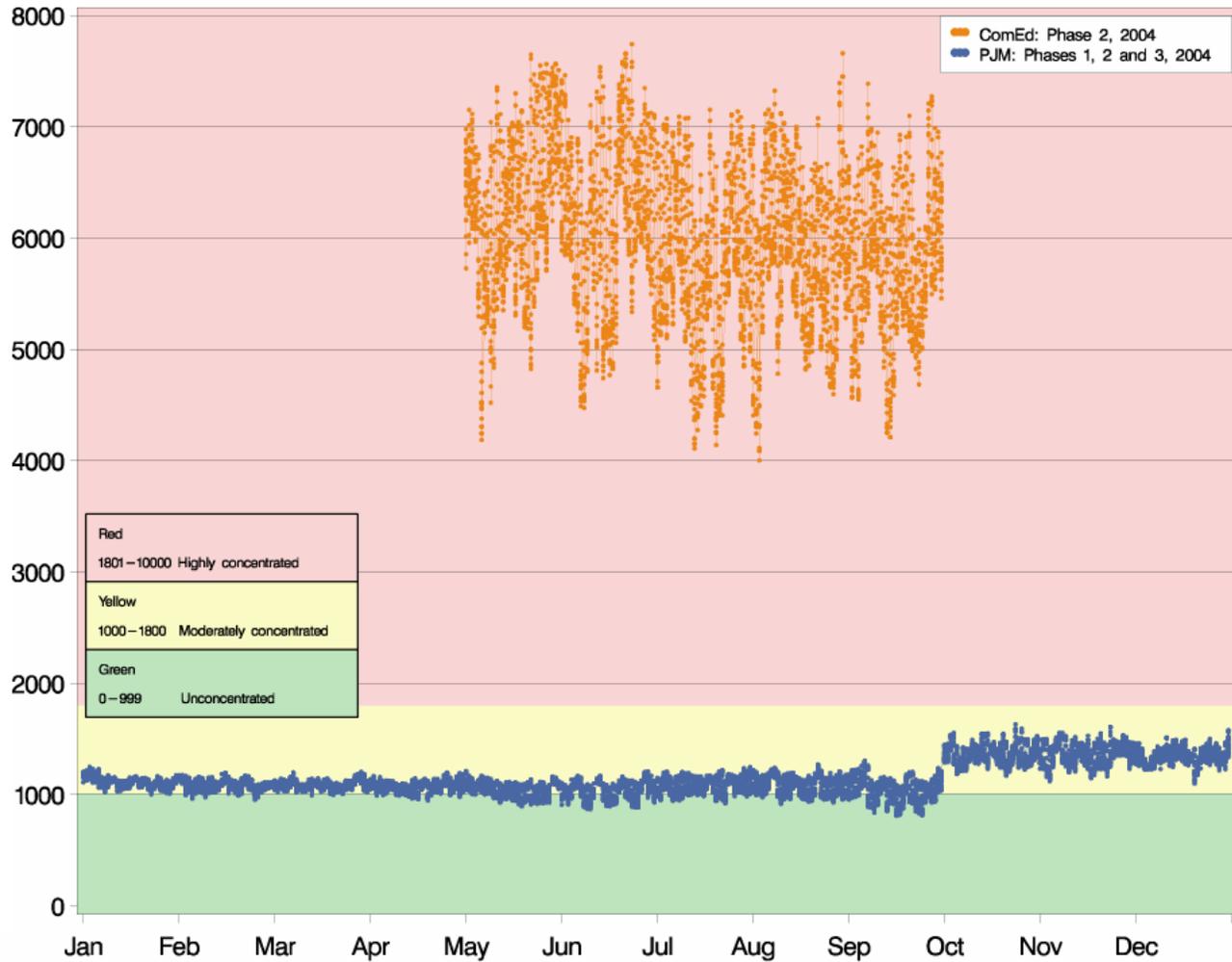
Spot fuel price comparison: Calendar years 2003 to 2004





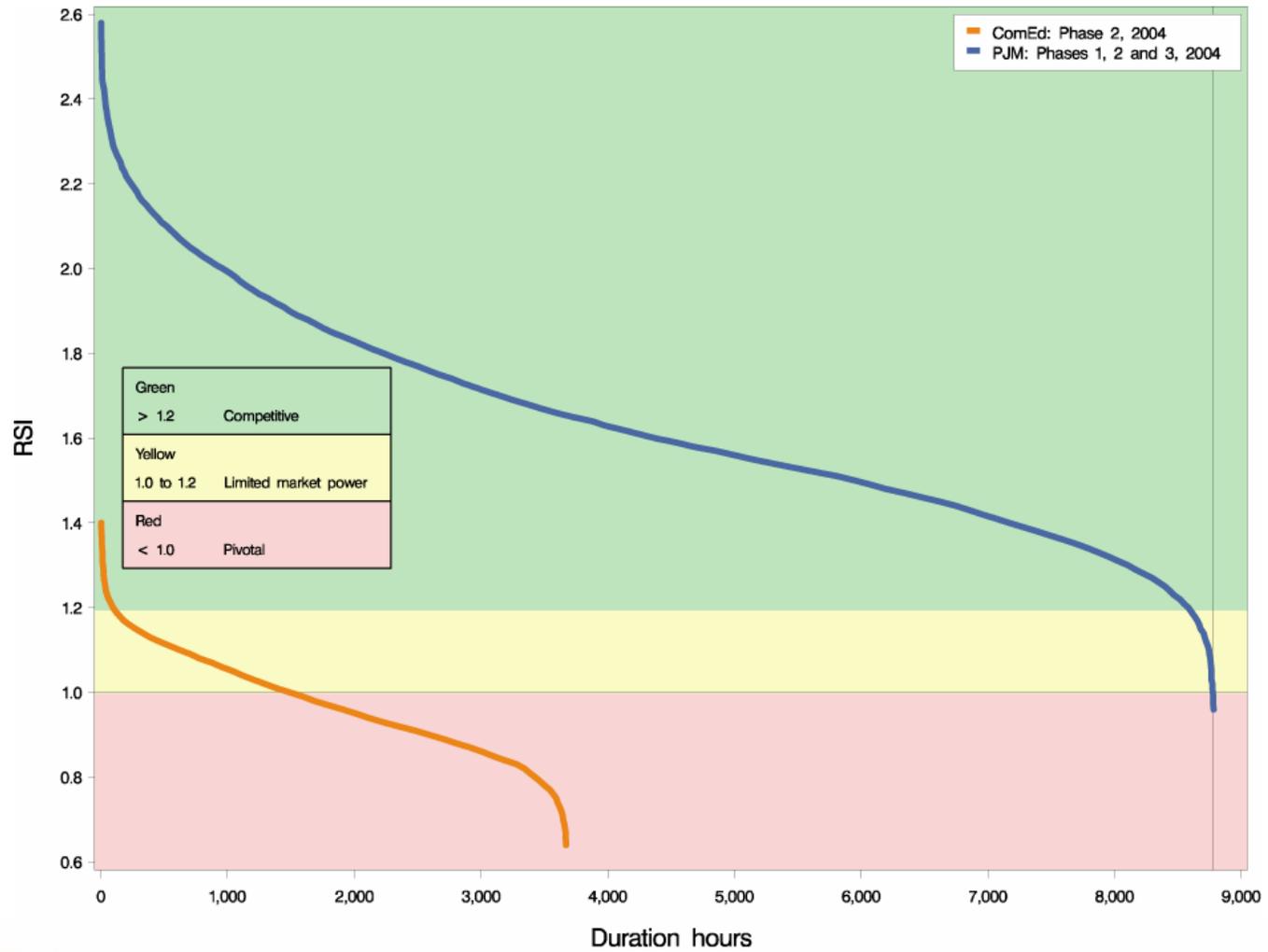


PJM and ComEd hourly Energy Market HHI: Phases 1, 2 and 3, 2004



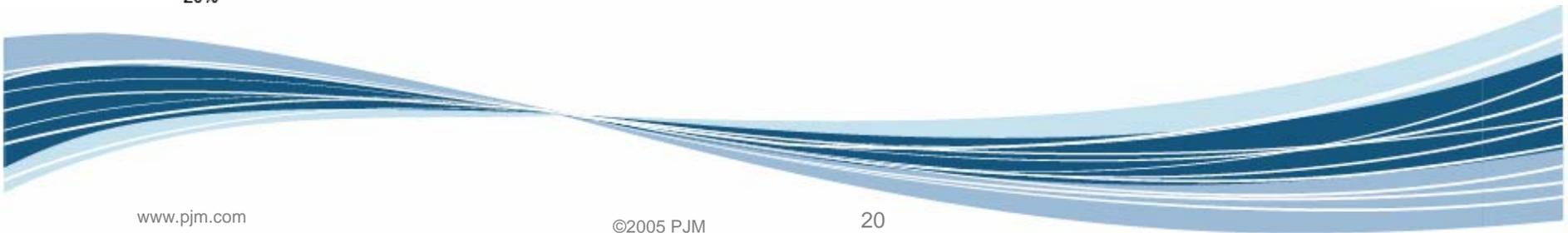
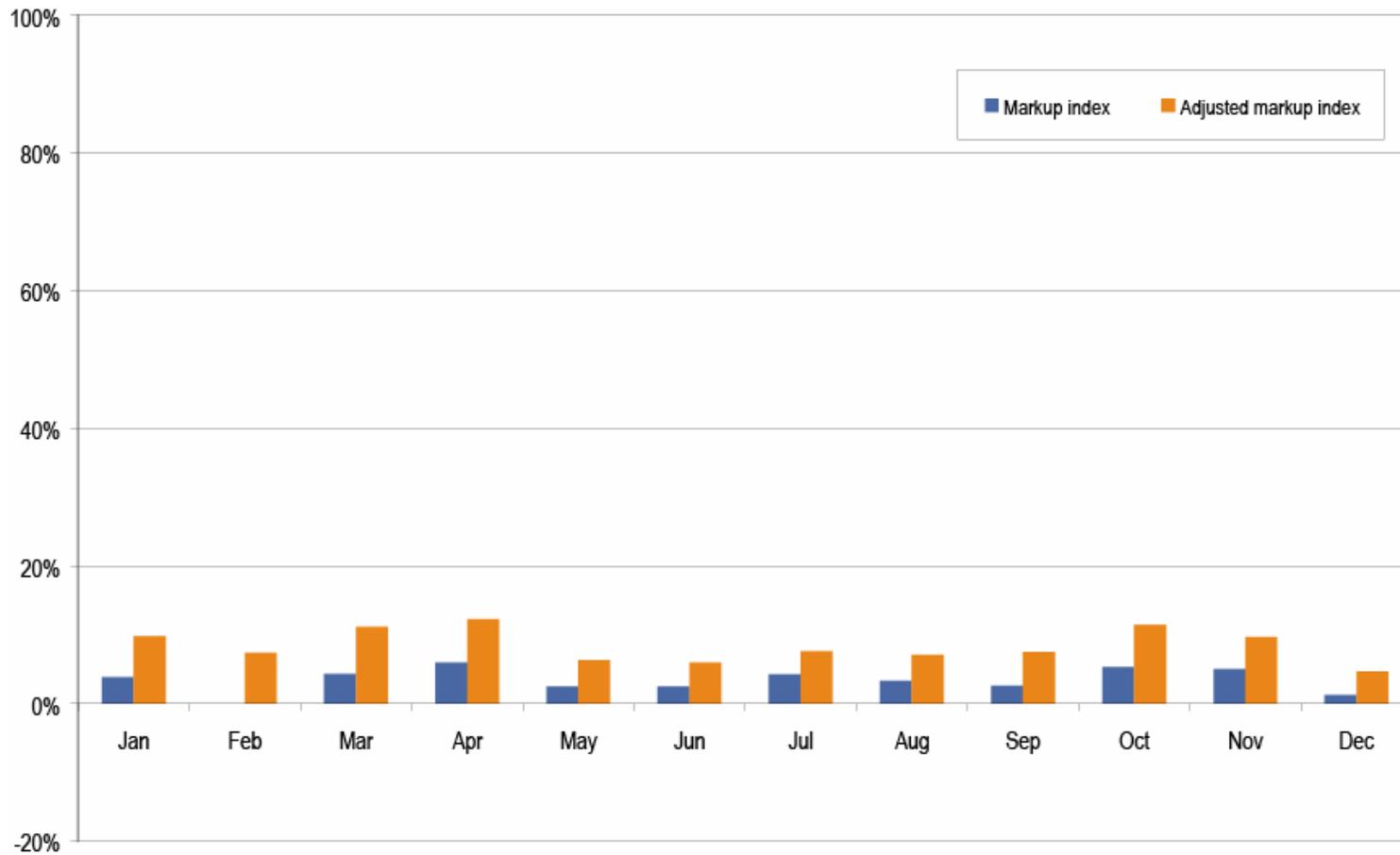


PJM and ComEd RSI duration curve: Calendar year 2004





Average monthly load-weighted markup indices: Calendar year 2004



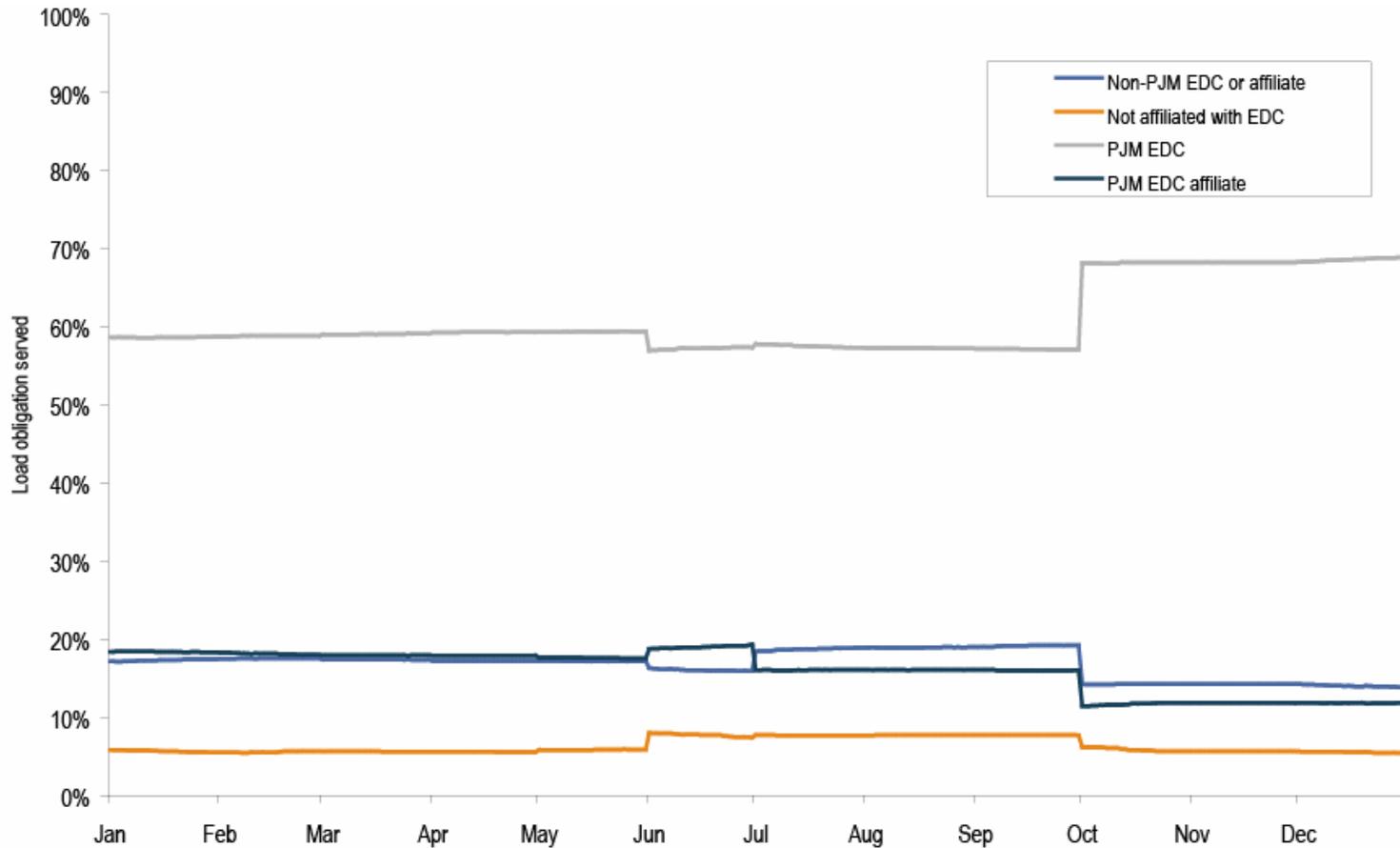


Average real-time, offer-capped MW: Calendar years 2001 to 2004

	2001		2002		2003		2004	
	Average MW Capped	Percent	Average MW Capped	Percent	Average MW Capped	Percent	Average MW Capped	Percent
Jan	46	0.1%	90	0.3%	87	0.2%	175	0.4%
Feb	7	0.0%	46	0.2%	74	0.2%	87	0.2%
Mar	84	0.3%	24	0.1%	44	0.1%	76	0.2%
Apr	248	0.9%	62	0.2%	29	0.1%	115	0.3%
May	291	1.1%	63	0.2%	101	0.3%	257	0.5%
Jun	455	1.4%	105	0.3%	110	0.3%	167	0.3%
Jul	247	0.8%	218	0.6%	252	0.6%	332	0.6%
Aug	372	1.0%	311	0.7%	294	0.7%	450	0.8%
Sep	553	1.9%	177	0.5%	241	0.7%	268	0.5%
Oct	571	2.1%	92	0.3%	96	0.3%	77	0.1%
Nov	410	1.5%	55	0.2%	53	0.2%	110	0.2%
Dec	90	0.3%	52	0.1%	44	0.1%	202	0.3%

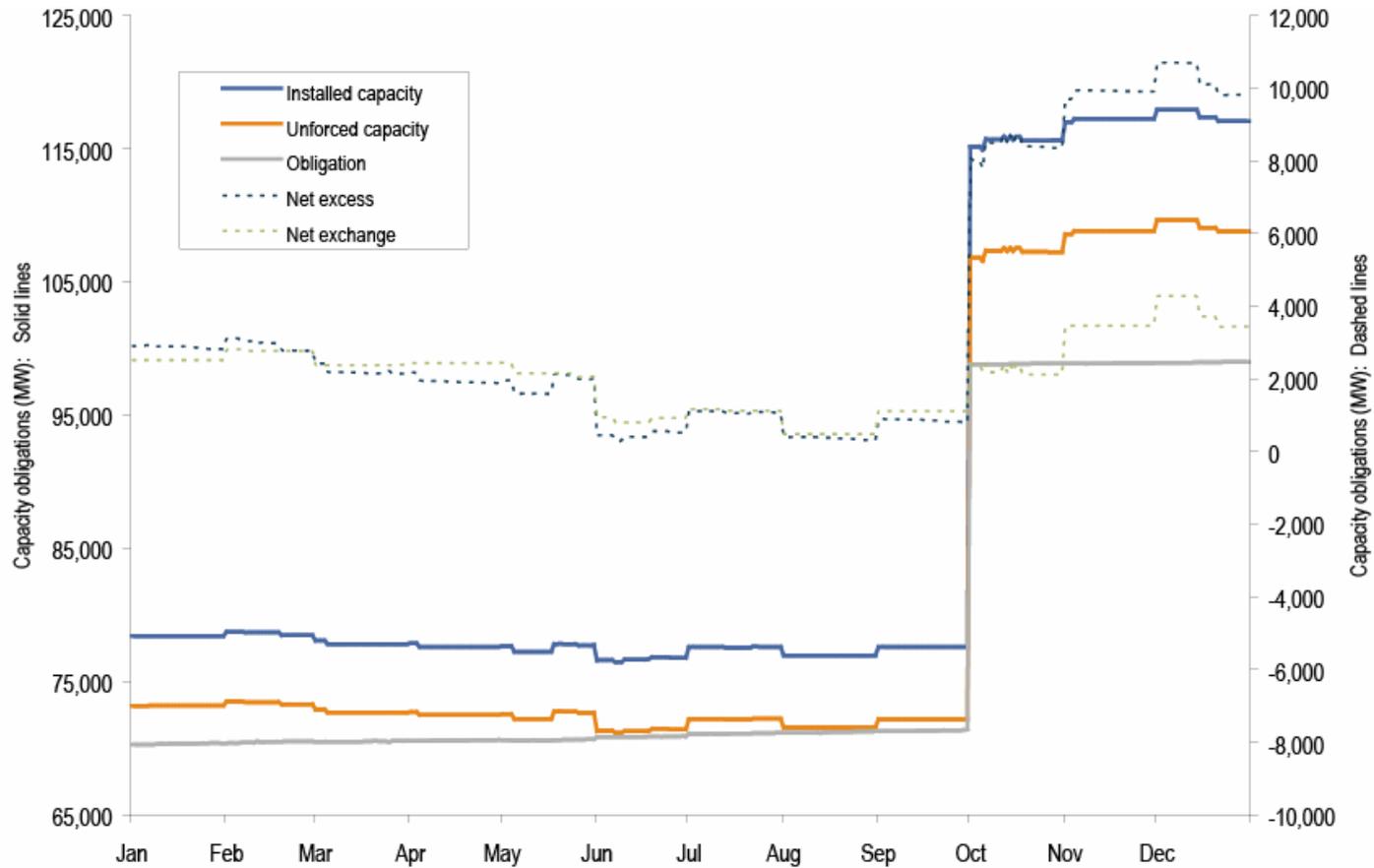


PJM Capacity Market load obligation served (Percent): Calendar year 2004



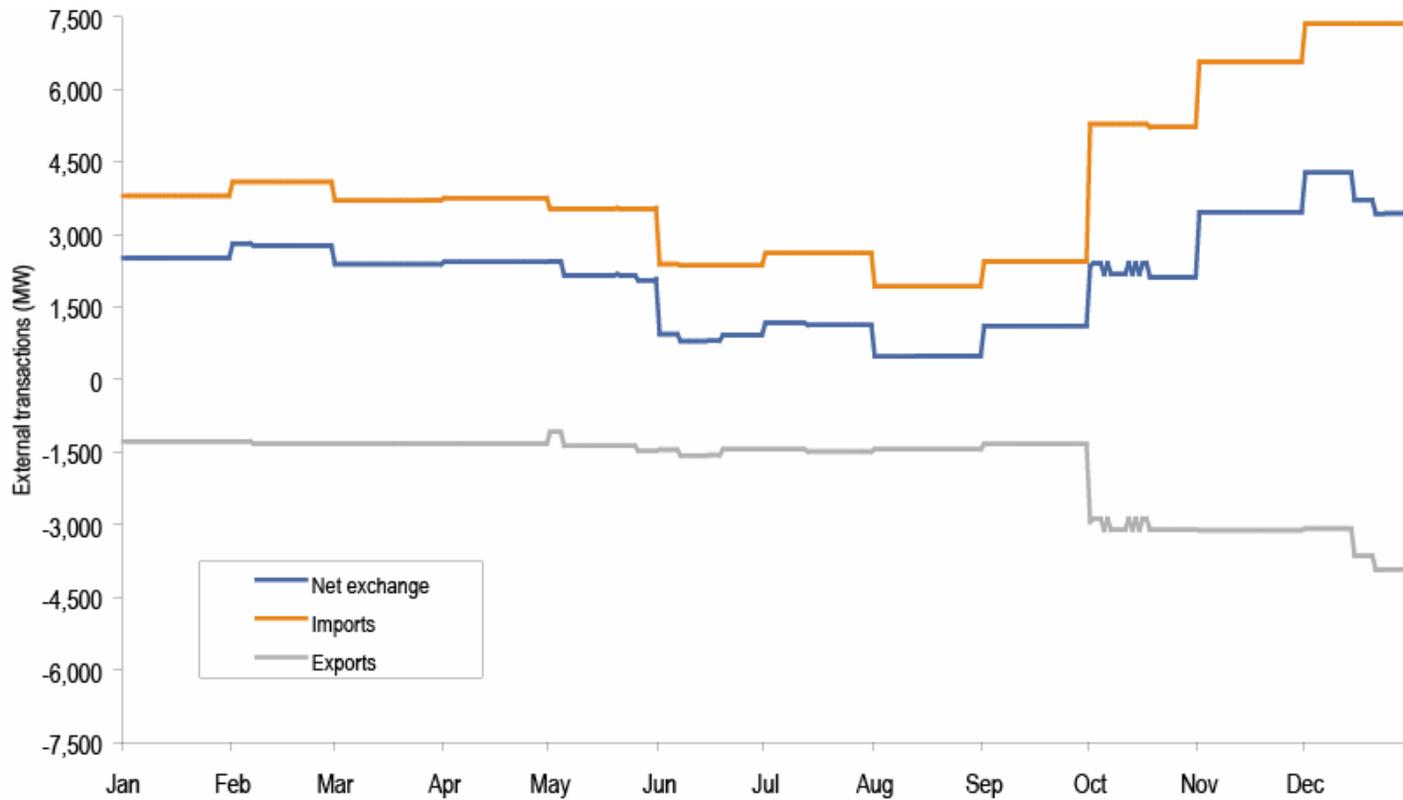


Capacity obligations to the PJM Capacity Market: Calendar year 2004



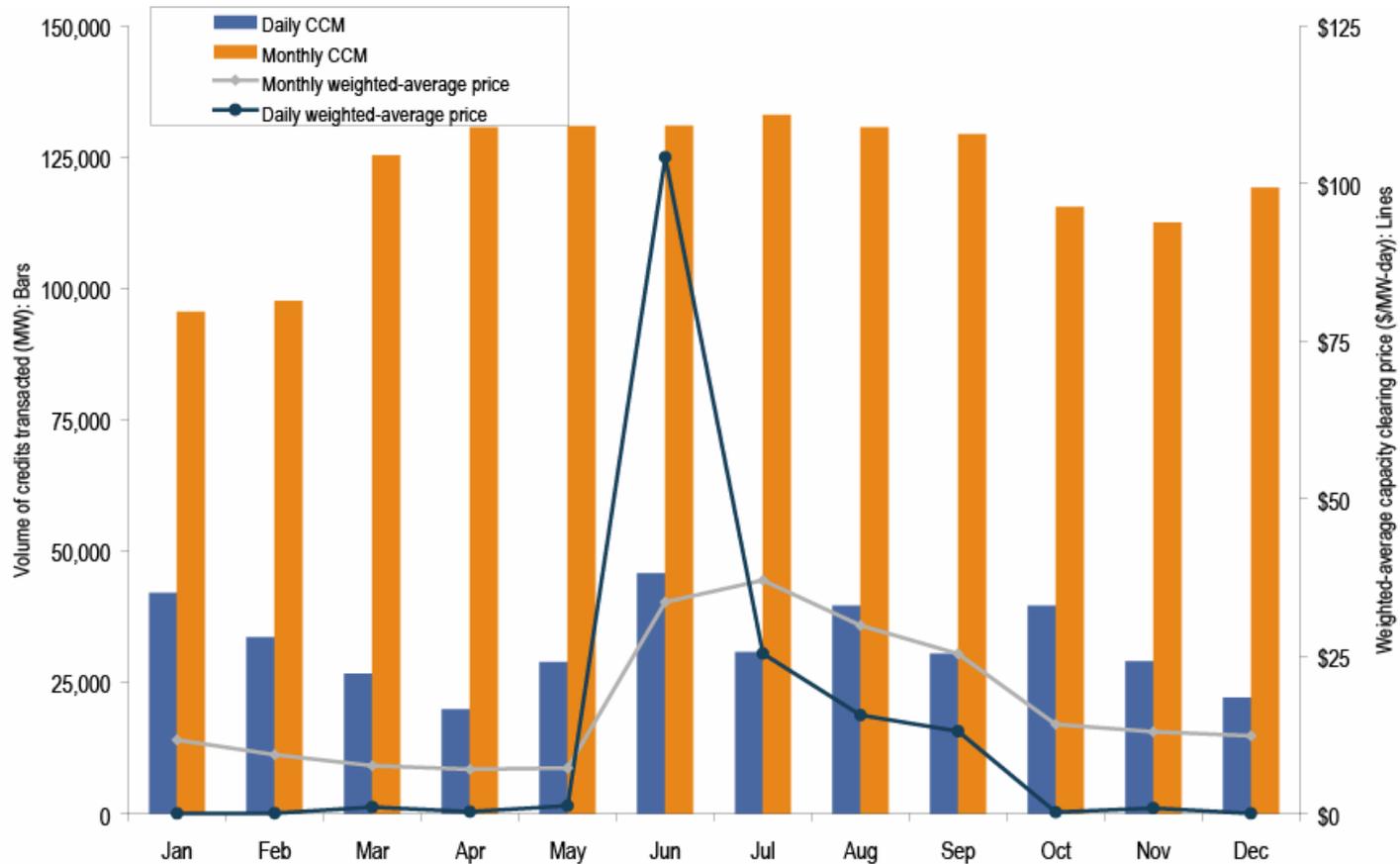


External PJM Capacity Market transactions: Calendar year 2004



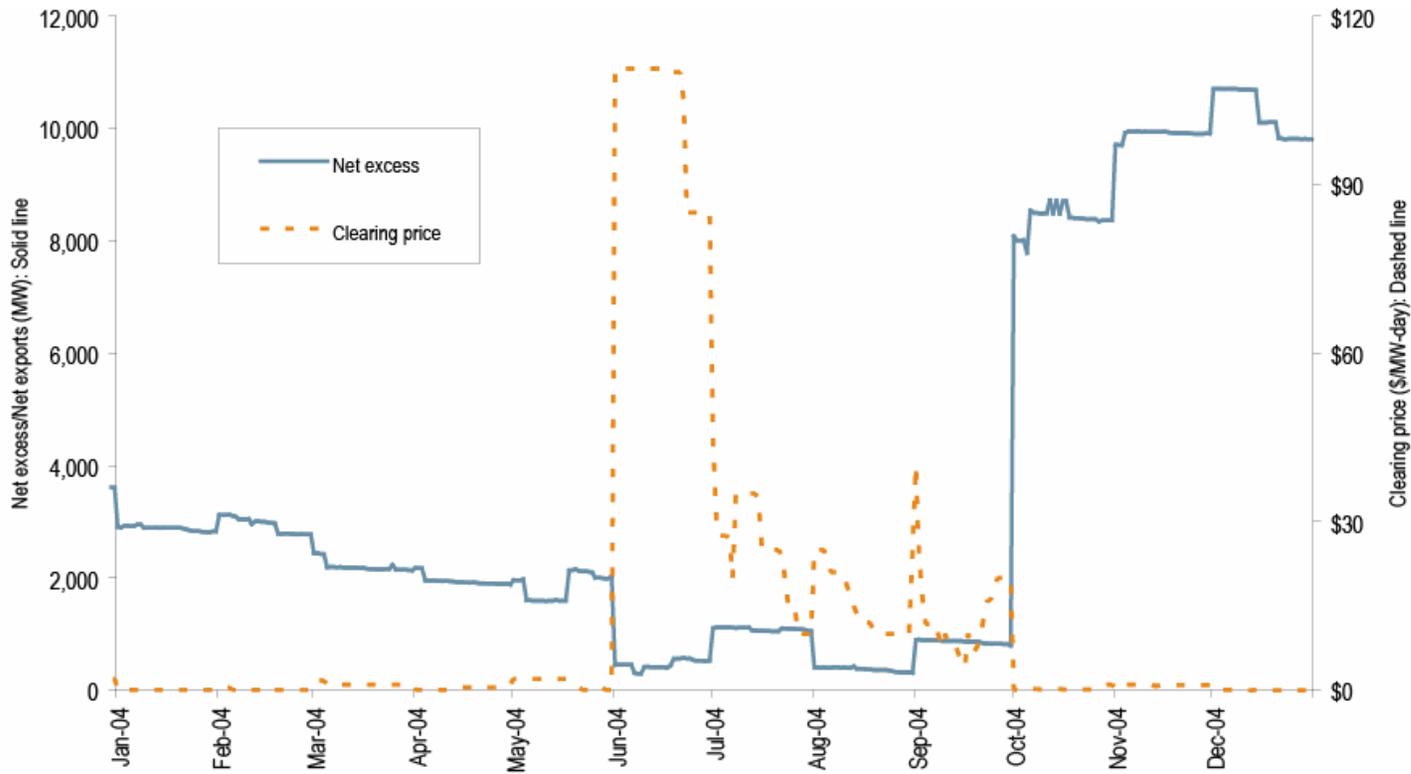


PJM Daily and Monthly Capacity Credit Market (CCM) performance: Calendar year 2004



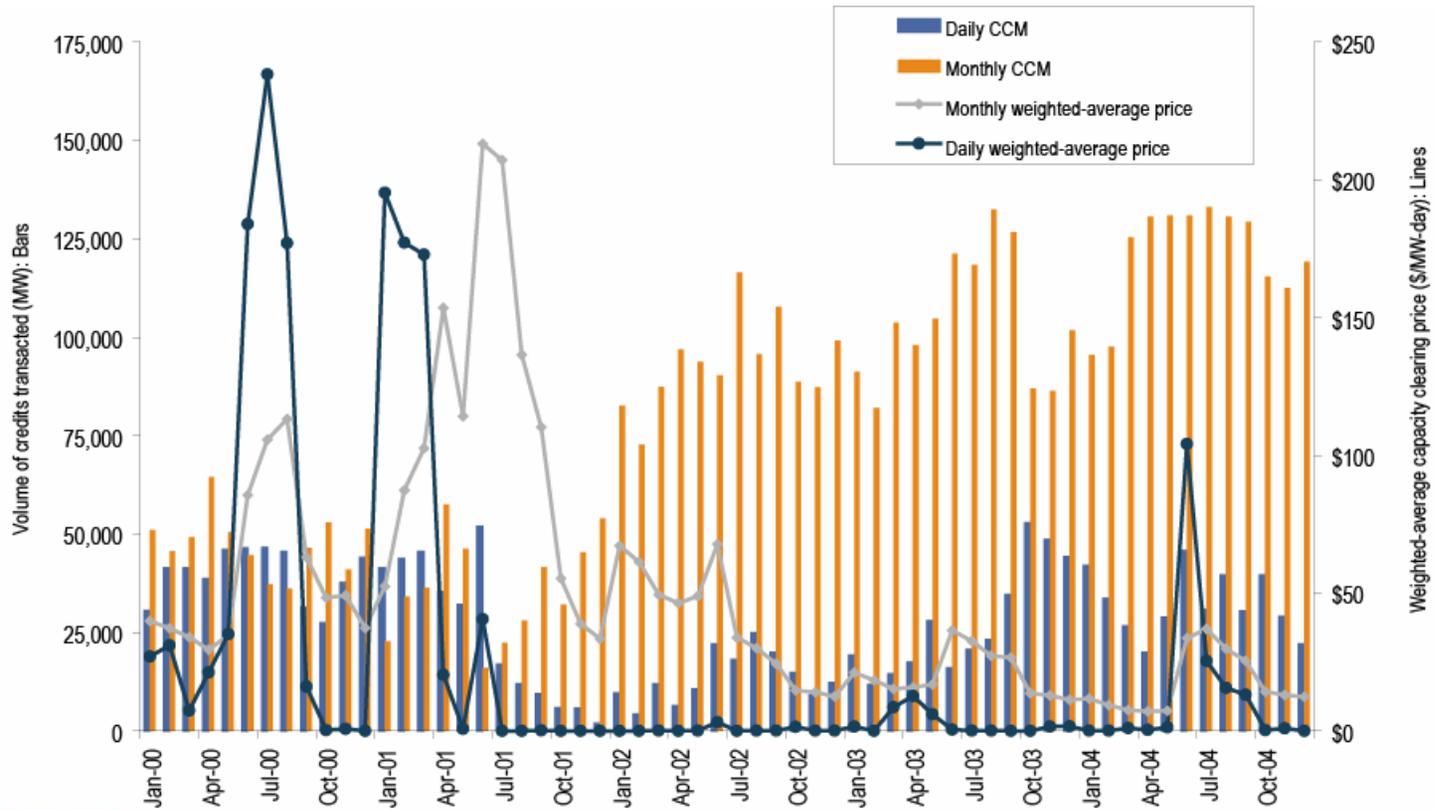


The PJM Capacity Market's net excess vs. capacity credit market-clearing prices: Calendar year 2004



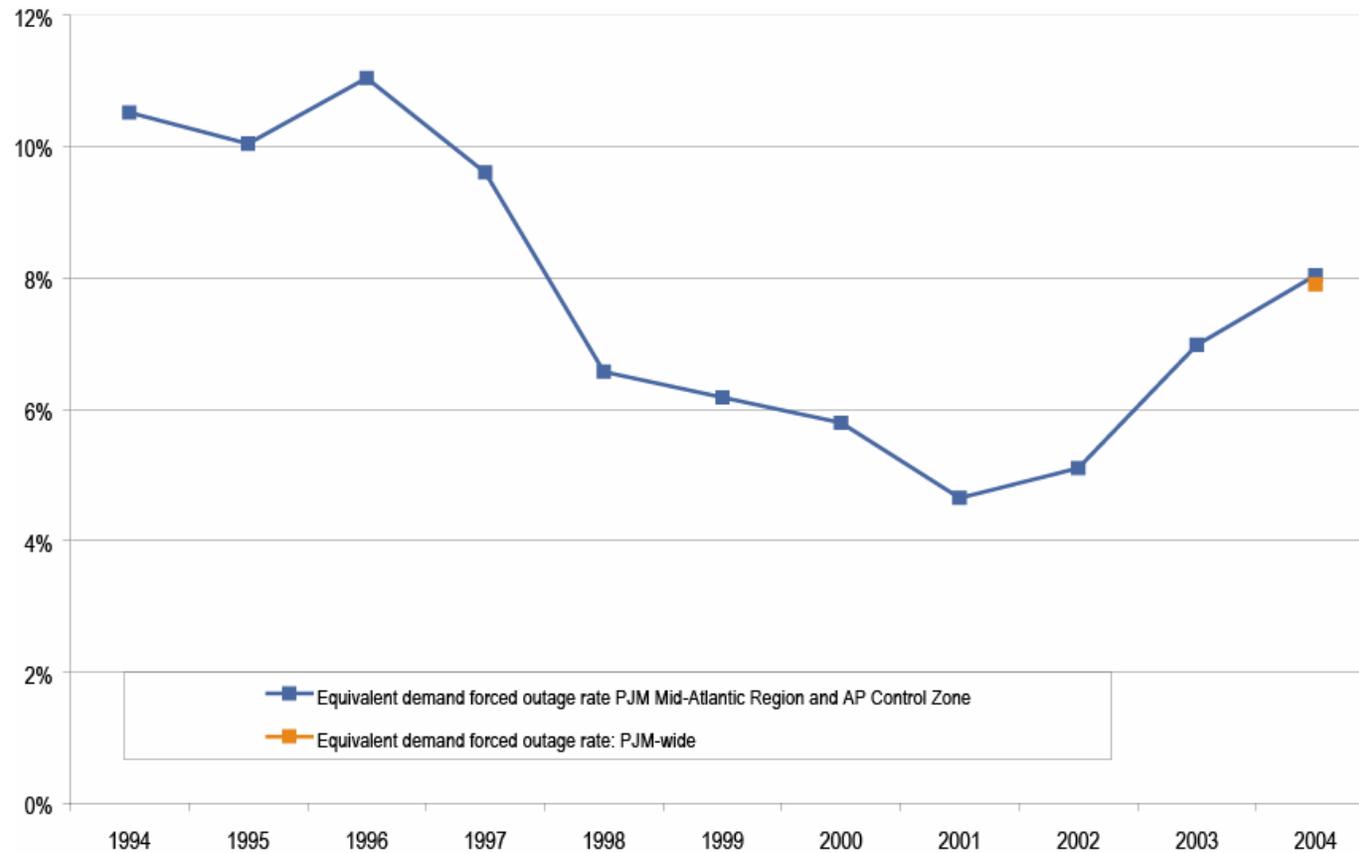


PJM Daily and Monthly Capacity Credit Market (CCM) performance: Calendar years 2000 to 2004



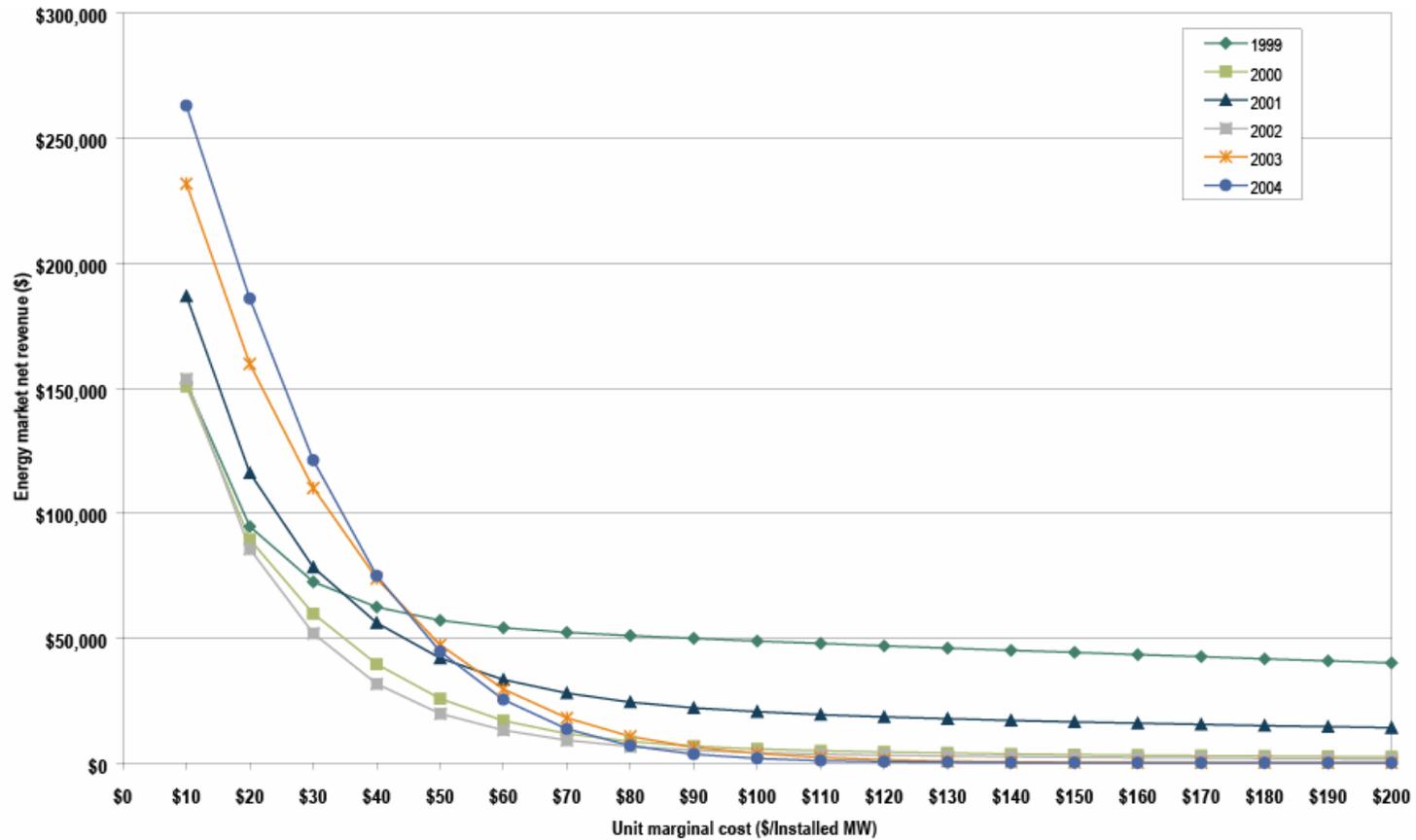


Trends in PJM equivalent demand forced outage rate (EFORd): Calendar years 1994 to 2004





PJM energy market net revenue by unit marginal cost: Calendar years 1999 to 2004





PJM Net Revenue

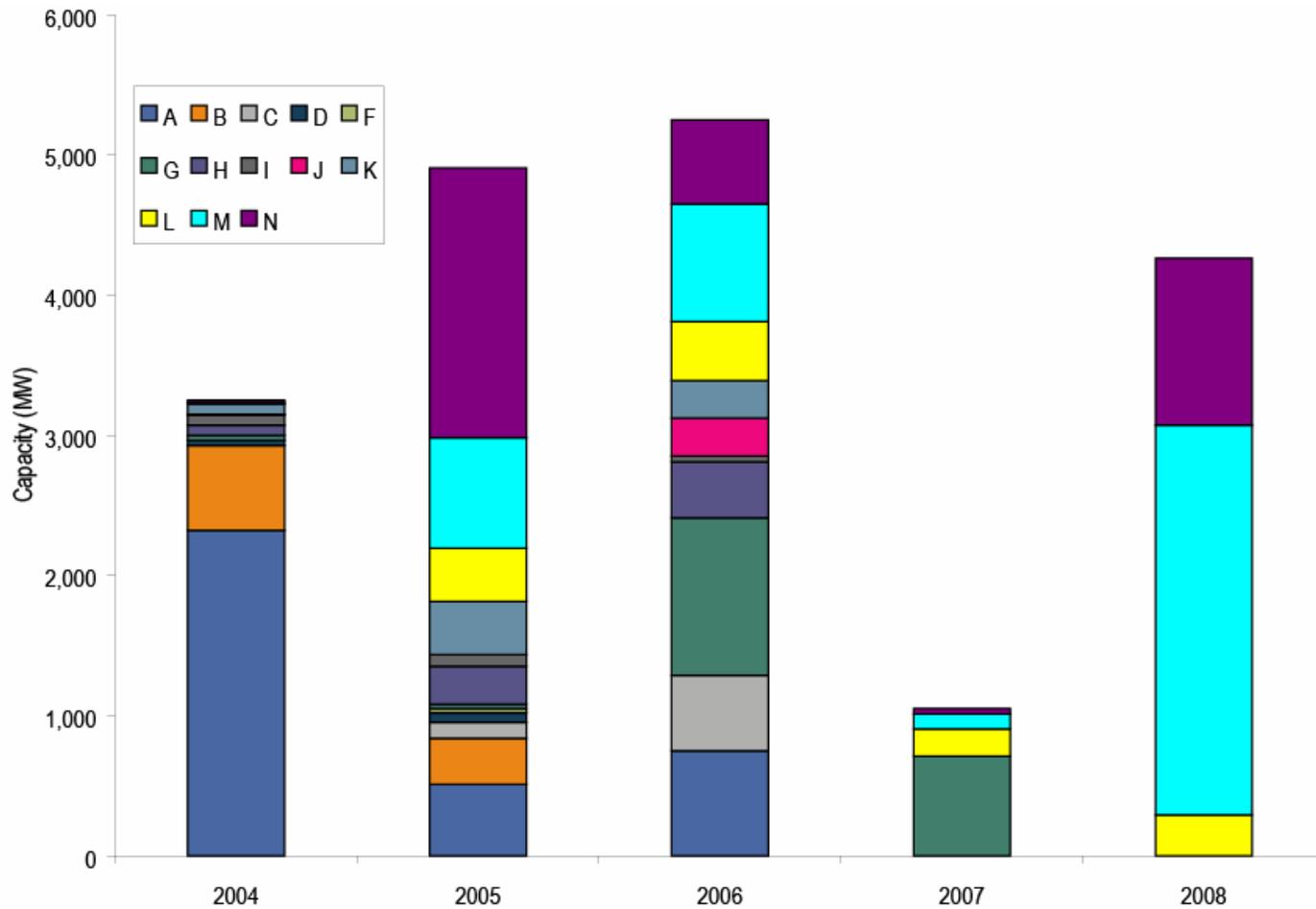
Table 1.

Unit Type	First Year Operating Fixed Cost	20 Year Levelized Fixed Cost	Perfect Dispatch Average Net Revenue 1999 to 2004	Realistic Dispatch Average Net Revenue 1999 to 2004
Combustion Turbine (CT)	\$61,726	\$72,207	\$44,314	\$36,195
Combined Cycle (CC)	\$79,969	\$93,549	\$77,107	\$52,243
Pulverized Coal (CP)	\$178,019	\$208,247	\$141,747	\$137,015

Table 2.

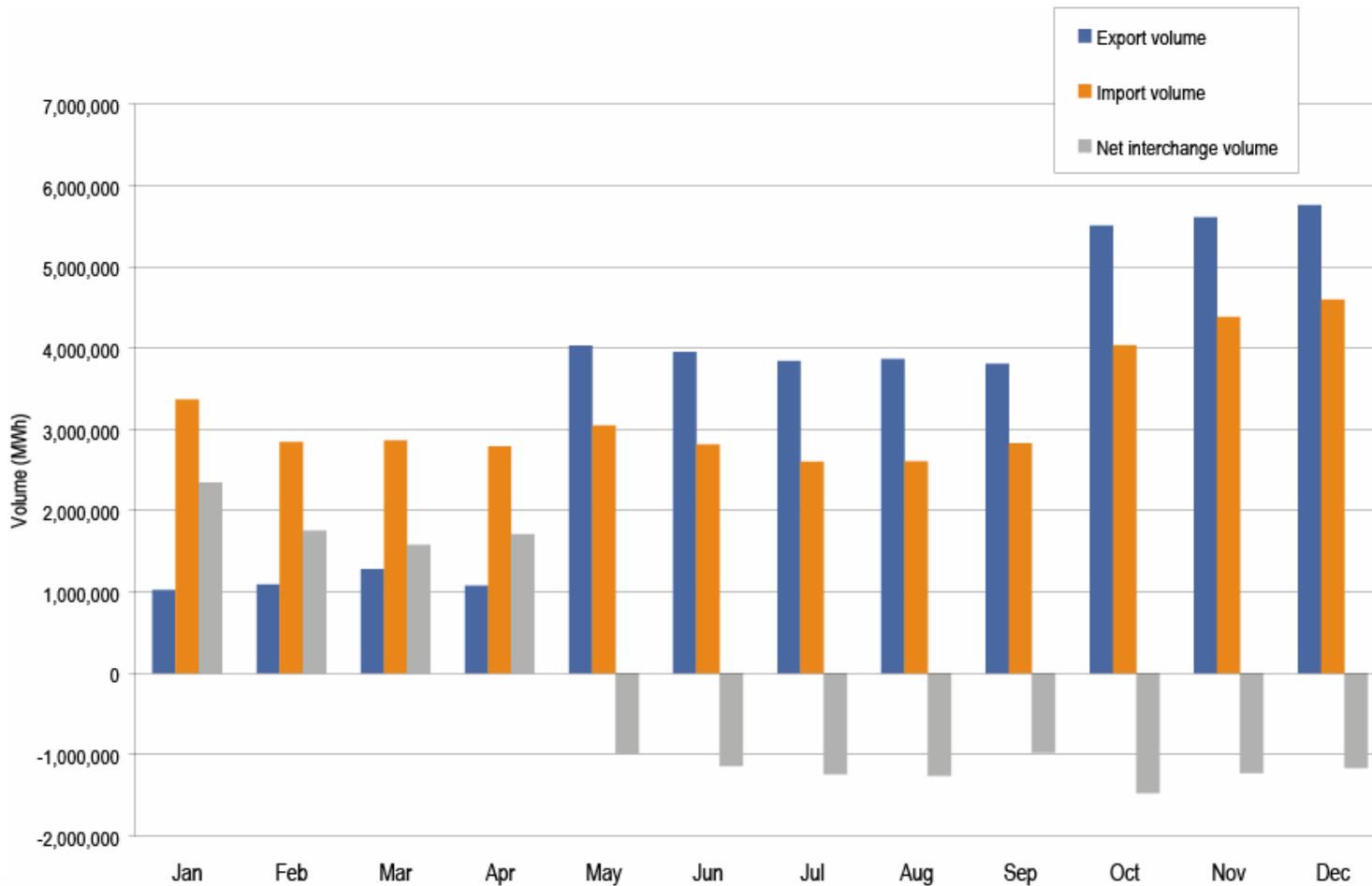
Unit Type	First Year Operating Fixed Cost	20 Year Levelized Fixed Cost	Perfect Dispatch Net Revenue 2004	Realistic Dispatch Net Revenue 2004
Combustion Turbine (CT)	\$61,726	\$72,207	\$15,829	\$8,685
Combined Cycle (CC)	\$79,969	\$93,549	\$58,657	\$36,446
Pulverized Coal (CP)	\$178,019	\$208,247	\$146,203	\$134,420

Queued capacity by in-service date: At December 31, 2004



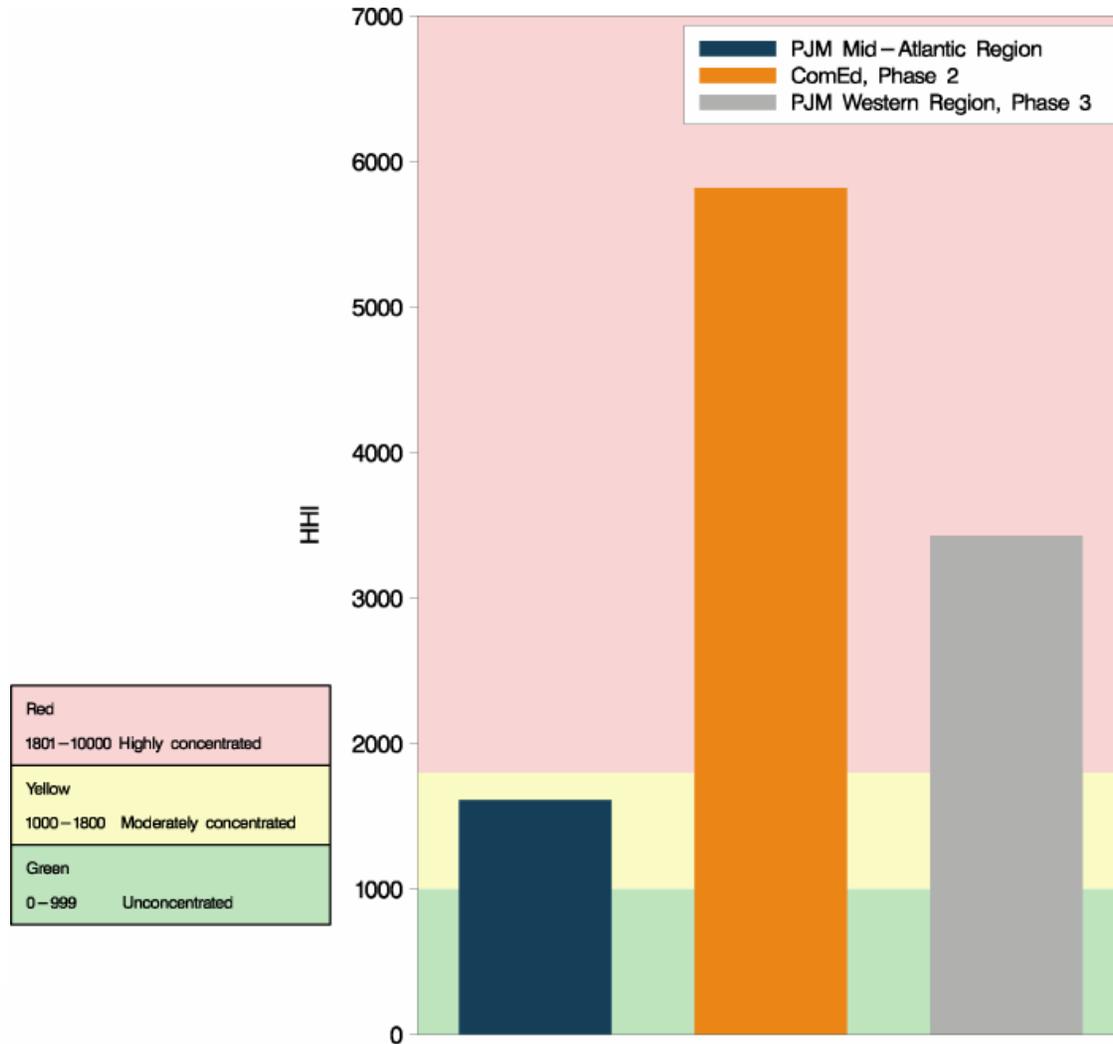


PJM real-time imports and exports: Calendar year 2004



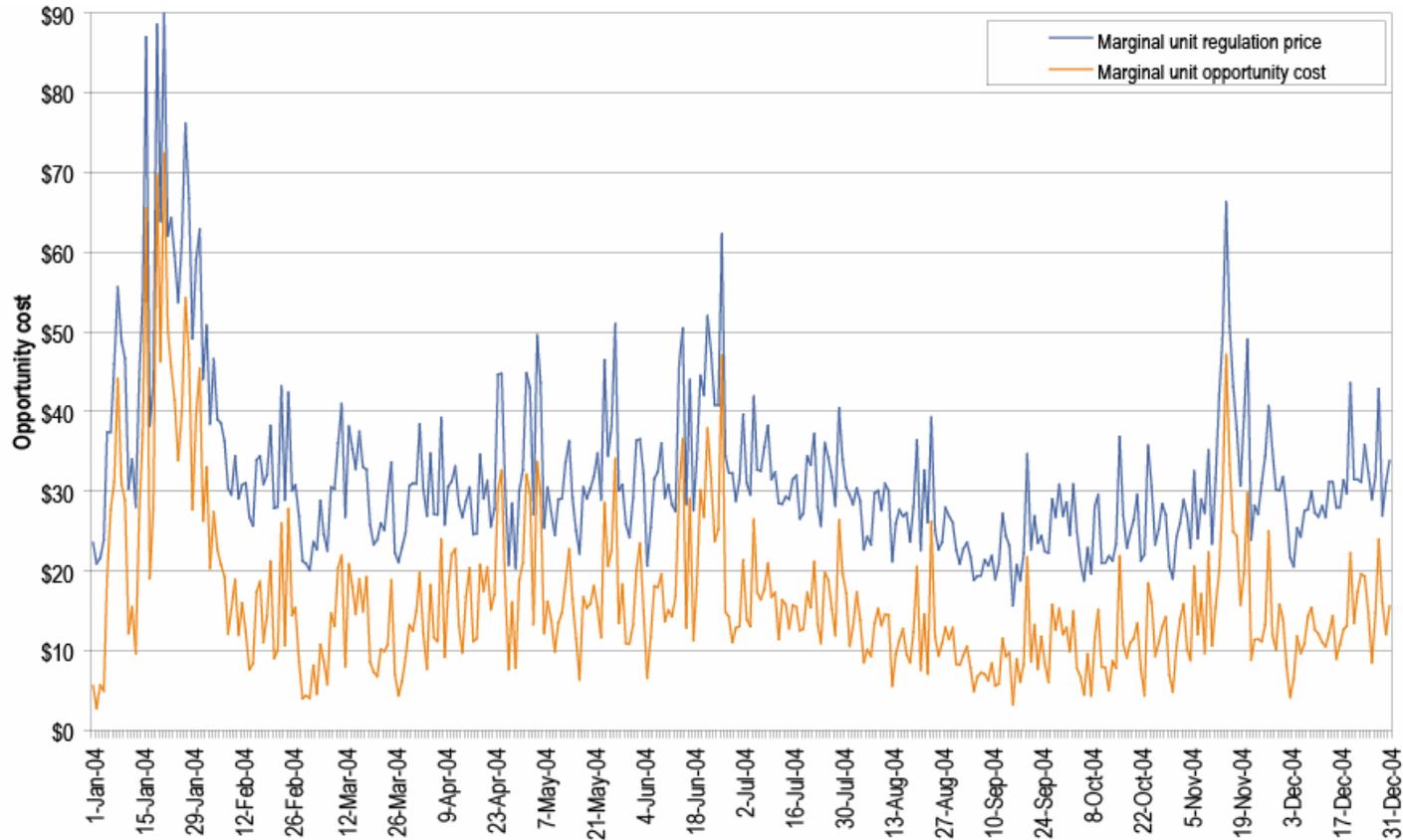


PJM system Regulation Market HHI: Calendar year 2004



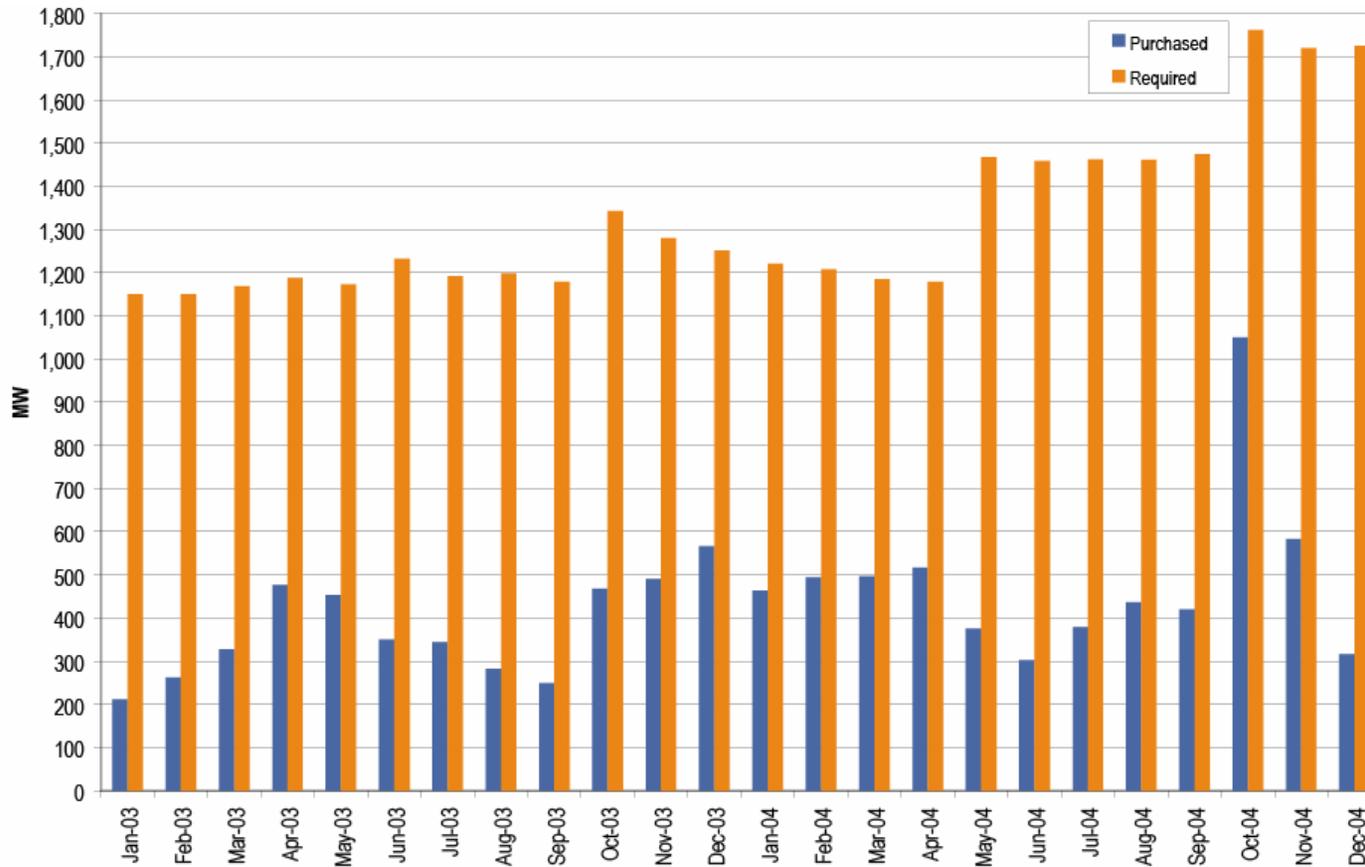


PJM Mid-Atlantic Region daily average regulation clearing price and estimated opportunity costs: Calendar year 2004





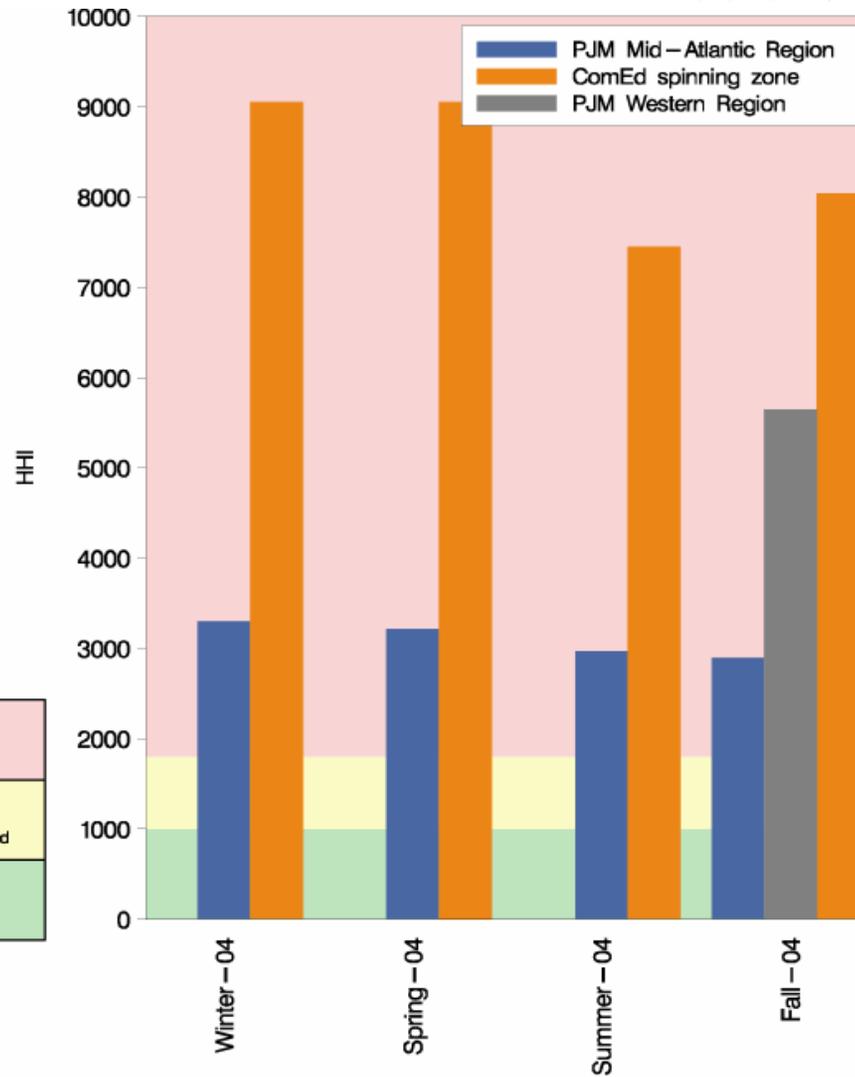
PJM Control Area average hourly required spinning vs. Tier 2 spinning purchased: Calendar years 2003 to 2004





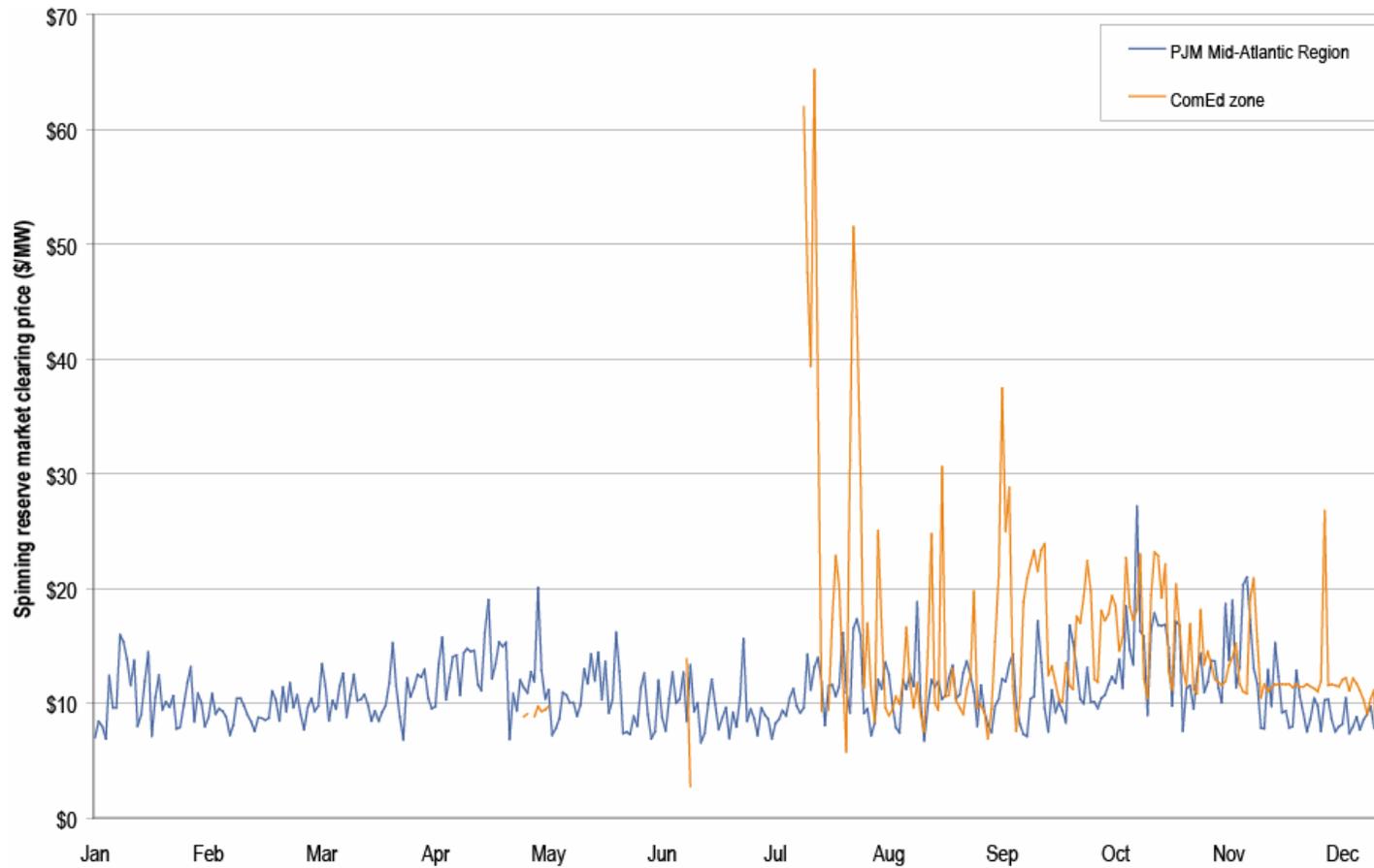
PJM system Spinning Reserve Market HHI: Calendar year 2004

Red	1801-10000 Highly concentrated
Yellow	1000-1800 Moderately concentrated
Green	0-999 Unconcentrated





PJM daily average spinning reserve market-clearing prices: Calendar year 2004





Total annual PJM congestion [Dollars (millions)]:
Calendar years 1999 to 2004

	Congestion Charges	Percent Increase	Total PJM Billing	Percent of PJM Billing
1999	\$53	N/A	N/A	N/A
2000	\$132	149%	\$2,300	6%
2001	\$271	105%	\$3,400	8%
2002	\$430	59%	\$4,700	9%
2003	\$499	16%	\$6,900	7%
2004	\$808	62%	\$8,700	9%
Total	\$2,193	N/A	N/A	N/A

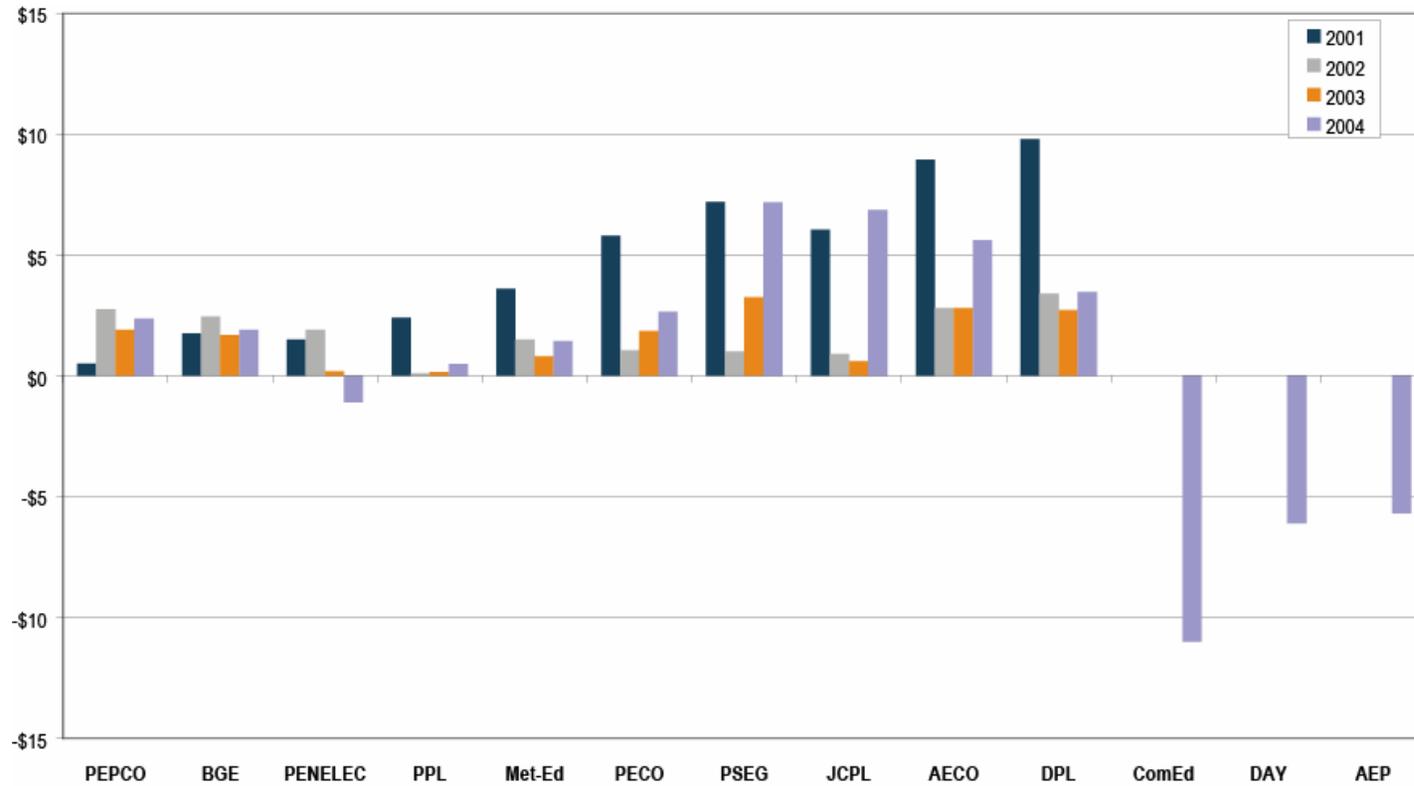


Monthly PJM congestion accounting summary [Dollars (millions)]: By planning period

	Congestion Charges	FTR Target Allocations	Congestion Credits	FTR Payout Ratio	Credits Deficiency	Credits Excess	
Planning Period 2003 to 2004	Jan-03	\$66	\$94	\$66	70%	\$29	\$0
	Feb-03	\$14	\$18	\$14	77%	\$4	\$0
	Mar-03	\$52	\$42	\$42	100%	\$0	\$10
	Apr-03	\$27	\$23	\$23	100%	\$0	\$4
	May-03	\$27	\$41	\$27	67%	\$14	\$0
	Jun-03	\$52	\$57	\$52	90%	\$6	\$0
	Jul-03	\$96	\$85	\$85	100%	\$0	\$10
	Aug-03	\$59	\$53	\$53	100%	\$0	\$6
	Sep-03	\$42	\$44	\$42	95%	\$2	\$0
	Oct-03	\$32	\$33	\$32	97%	\$1	\$0
	Nov-03	\$18	\$17	\$17	100%	\$0	\$1
	Dec-03	\$15	\$13	\$13	100%	\$0	\$2
	Jan-04	\$57	\$54	\$54	100%	\$0	\$3
	Feb-04	\$22	\$16	\$16	100%	\$0	\$6
	Mar-04	\$21	\$18	\$18	100%	\$0	\$3
	Apr-04	\$23	\$25	\$23	92%	\$2	\$0
	May-04	\$59	\$62	\$59	95%	\$3	\$0
	Total	\$680	\$696	\$635	91%	\$60	\$45
	Values After Excess Congestion Charges Distributed						
		\$680	\$696	\$680	98%	\$16	\$0
Planning Year 2004 to 2005 (through December 31, 2004)	Jun-04	\$64	\$67	\$64	95%	\$3	\$0
	Jul-04	\$116	\$114	\$114	100%	\$0	\$1
	Aug-04	\$121	\$128	\$121	94%	\$7	\$0
	Sep-04	\$47	\$47	\$47	99%	\$0	\$0
	Oct-04	\$46	\$39	\$39	100%	\$0	\$7
	Nov-04	\$74	\$81	\$74	91%	\$7	\$0
	Dec-04	\$160	\$150	\$150	100%	\$0	\$9
	Total	\$627	\$627	\$609	97%	\$18	\$18

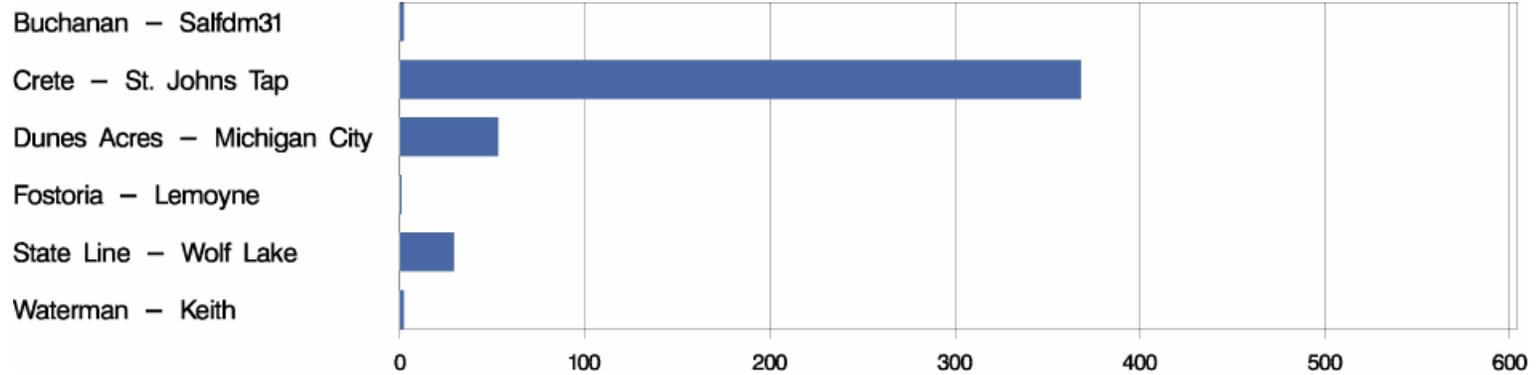


Annual zonal LMP differences (Reference to Western Hub): Calendar years 2001 to 2004



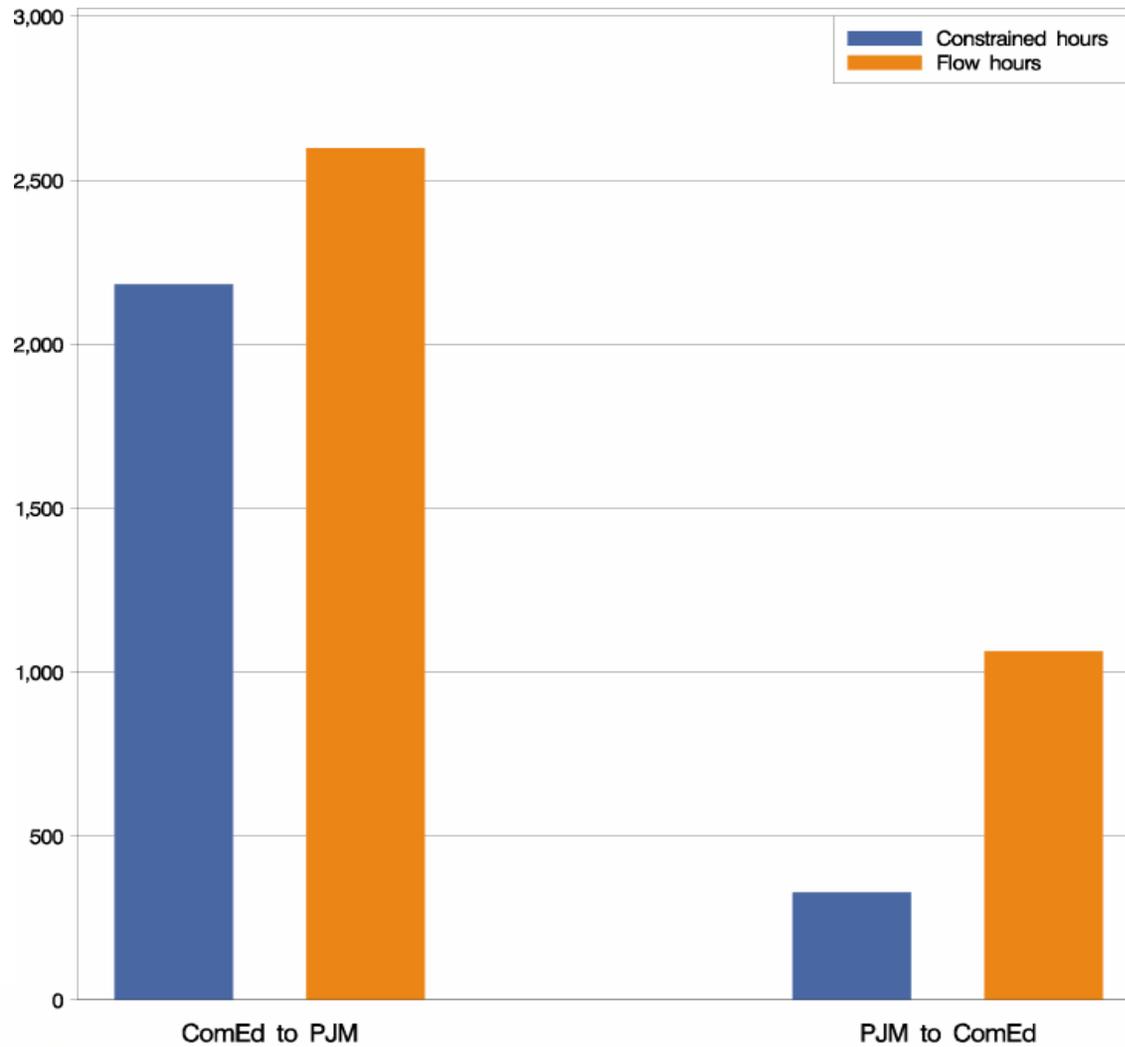


Midwest ISO flowgates impacting PJM dispatch: Calendar year 2004



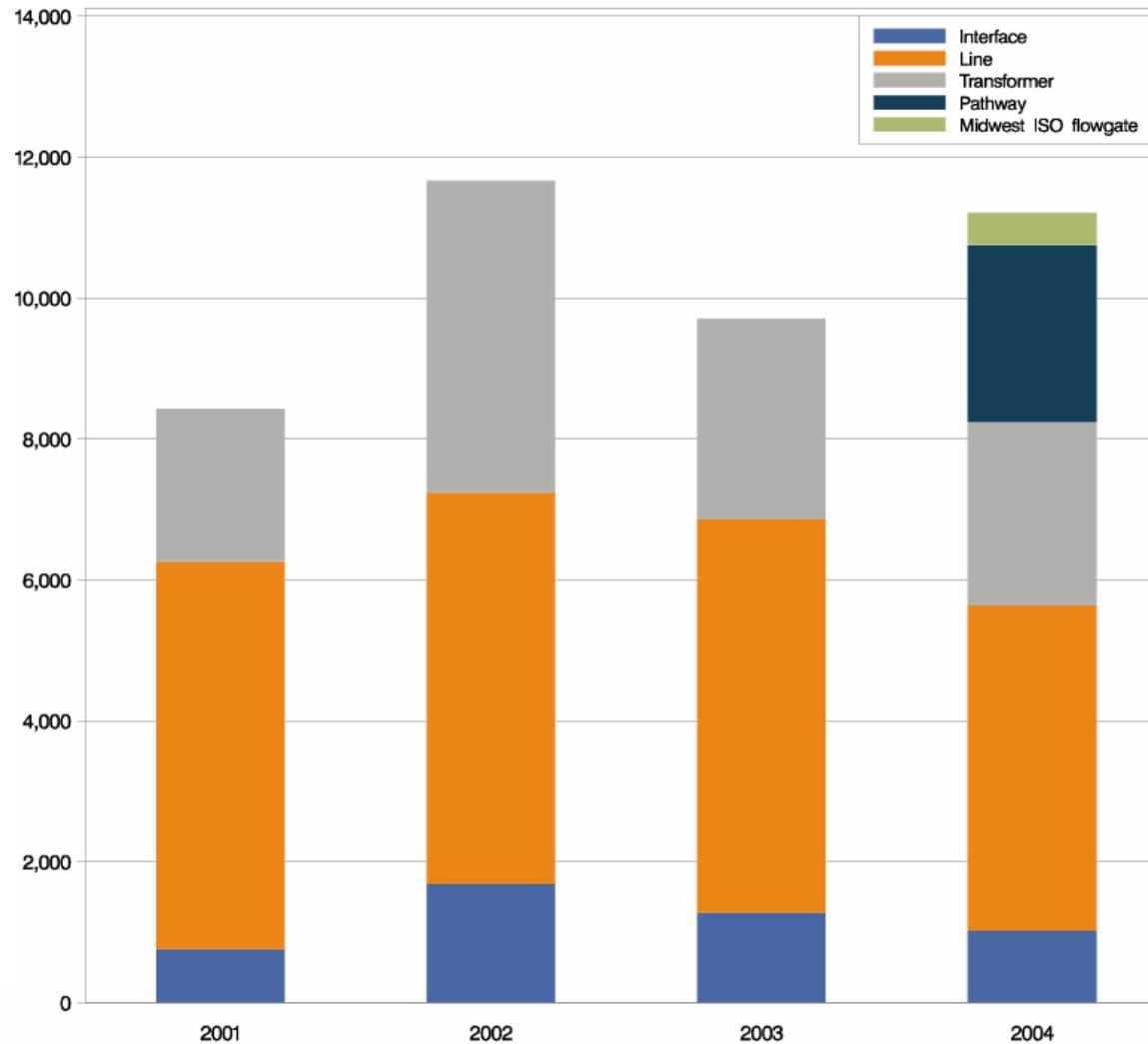


Pathway directional flows and hours of congestion: Phase 2, 2004



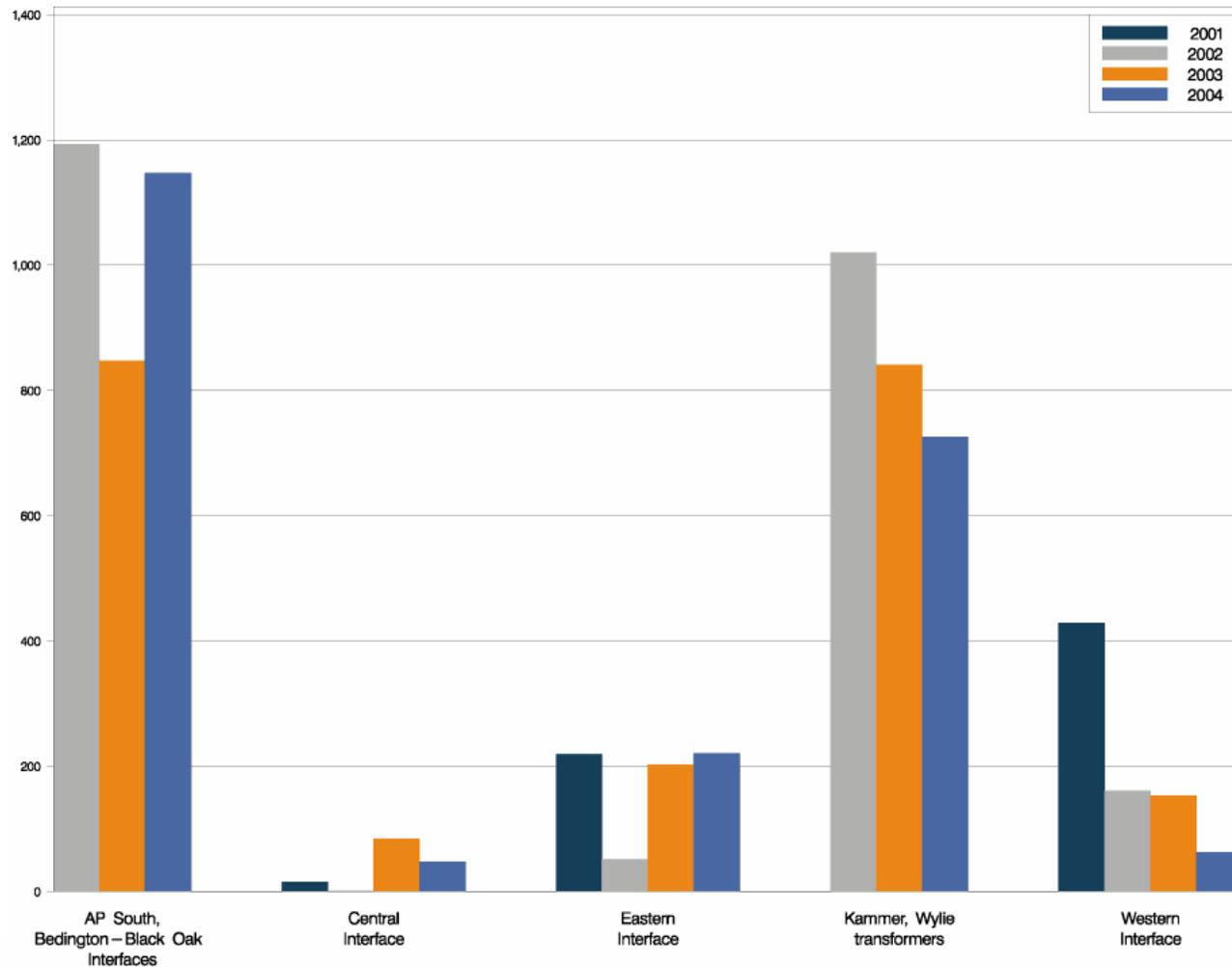


Congestion-event hours by facility type: Calendar years 2001 to 2004



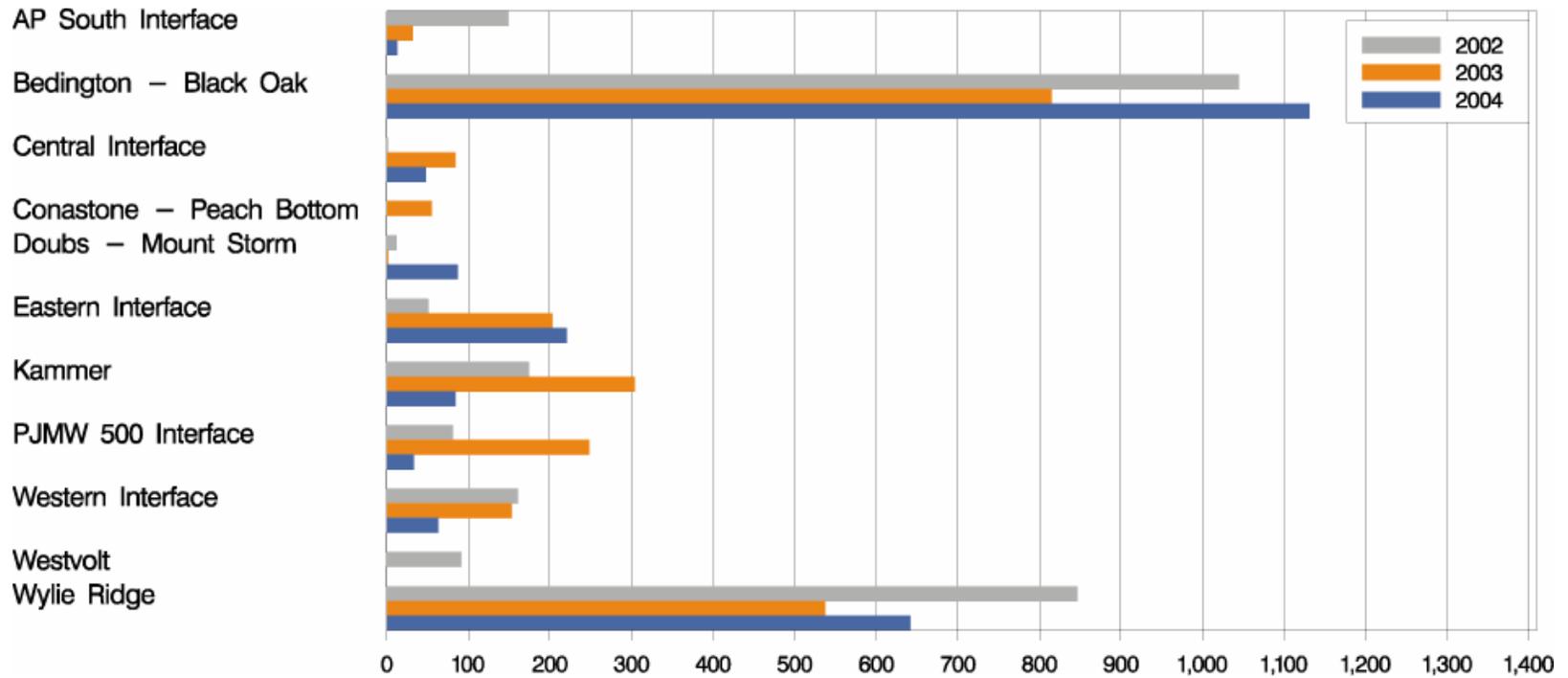


Regional constraints and congestion-event hours by facility: Calendar years 2001 to 2004





500 kV zone congestion-event hours by facility: Calendar years 2002 to 2004





ARR and self-scheduled FTR congestion hedging by control zone: Planning period 2004 to 2005 through December 31, 2004

