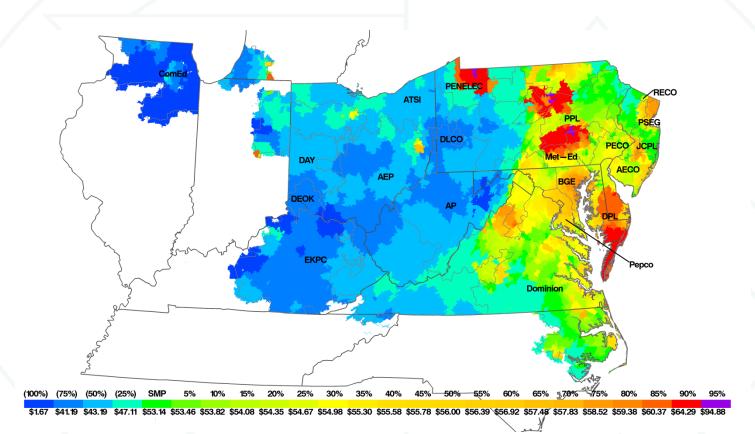
### **Market Monitor Report**

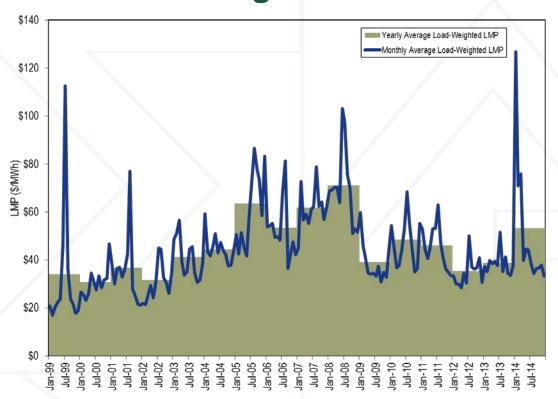
MC Webinar January 20, 2015 Joe Bowring



#### PJM real-time, load-weighted, average LMP: 2014



## PJM real-time, monthly and annual, load-weighted, average LMP: 1999 through 2014



# Zone real-time and real-time, load-weighted, average LMP (Dollars per MWh): 2013 and 2014

R	eal-Time Avera	ge LMP	Real-Time, Load-Weighted, Average LMP		
2013 Average	2014 Average	Percentage Change	2013 Average	2014 Average	Percentage Change
\$38.10	\$51.17	47.8%	\$41.11	\$55.77	35.7%
\$34.22	\$44.03	28.7%	\$35.56	\$47.81	34.5%
\$36.00	\$47.60	32.2%	\$37.70	\$52.94	40.4%
\$38.72	\$45.39	17.2%	\$42.12	\$48.60	15.4%
\$40.51	\$58.81	45.2%	\$43.52	\$67.78	55.8%
\$31.55	\$39.54	25.3%	\$33.28	\$42.04	26.3%
\$34.56	\$43.77	26.7%	\$36.15	\$47.36	31.0%
\$32.94	\$41.68	26.6%	\$34.35	\$45.00	31.0%
\$34.00	\$41.55	22.2%	\$35.70	\$44.22	23.9%
\$38.16	\$54.50	42.8%	\$40.63	\$62.99	55.0%
\$39.29	\$55.82	42.1%	\$42.18	\$65.03	54.2%
\$32.29	\$41.75	29.3%	\$33.96	\$47.88	41.0%
\$39.04	\$50.97	30.5%	\$42.98	\$56.07	30.4%
\$37.41	\$49.60	32.6%	\$39.72	\$56.08	41.2%
\$37.28	\$50.21	34.7%	\$39.70	\$55.94	40.9%
\$37.01	\$47.63	28.7%	\$38.71	\$51.90	34.1%
\$39.90	\$57.34	43.7%	\$42.78	\$65.61	53.4%
\$37.17	\$49.62	33.5%	\$39.26	\$56.97	45.1%
\$40.96	\$53.71	31.1%	\$43.97	\$57.90	31.7%
\$41.84	\$52.96	26.6%	\$45.81	\$56.79	24.0%
\$37.15	\$48.88	41.3%	\$38.66	\$53.14	37.4%
	2013 Average \$38.10 \$34.22 \$36.00 \$38.72 \$40.51 \$31.55 \$34.56 \$32.94 \$34.00 \$38.16 \$39.29 \$32.29 \$37.41 \$37.28 \$37.01 \$39.90 \$37.17 \$40.96 \$41.84	2013 Average 2014 Average   \$38.10 \$51.17   \$34.22 \$44.03   \$36.00 \$47.60   \$38.72 \$45.39   \$40.51 \$58.81   \$31.55 \$39.54   \$34.56 \$43.77   \$32.94 \$41.68   \$34.00 \$41.55   \$38.16 \$54.50   \$39.29 \$55.82   \$32.29 \$41.75   \$39.04 \$50.97   \$37.41 \$49.60   \$37.28 \$50.21   \$37.01 \$47.63   \$39.90 \$57.34   \$40.96 \$53.71   \$41.84 \$52.96	\$38.10 \$51.17 47.8% \$34.22 \$44.03 28.7% \$36.00 \$47.60 32.2% \$38.72 \$45.39 17.2% \$40.51 \$58.81 45.2% \$31.55 \$39.54 25.3% \$34.56 \$43.77 26.7% \$32.94 \$41.68 26.6% \$34.00 \$41.55 22.2% \$38.16 \$54.50 42.8% \$39.29 \$55.82 42.1% \$32.29 \$41.75 29.3% \$39.04 \$50.97 30.5% \$37.41 \$49.60 32.6% \$37.28 \$50.21 34.7% \$37.01 \$47.63 28.7% \$39.90 \$57.34 43.7% \$37.17 \$49.62 33.5% \$40.96 \$53.71 31.1% \$41.84 \$52.96 26.6%	2013 Average 2014 Average Percentage Change 2013 Average   \$38.10 \$51.17 47.8% \$41.11   \$34.22 \$44.03 28.7% \$35.56   \$36.00 \$47.60 32.2% \$37.70   \$38.72 \$45.39 17.2% \$42.12   \$40.51 \$58.81 45.2% \$43.52   \$31.55 \$39.54 25.3% \$33.28   \$34.56 \$43.77 26.7% \$36.15   \$32.94 \$41.68 26.6% \$34.35   \$34.00 \$41.55 22.2% \$35.70   \$38.16 \$54.50 42.8% \$40.63   \$39.29 \$55.82 42.1% \$42.18   \$32.29 \$41.75 29.3% \$33.96   \$39.04 \$50.97 30.5% \$42.98   \$37.28 \$50.21 34.7% \$39.70   \$37.01 \$47.63 28.7% \$38.71   \$39.90 \$57.34 43.7% \$42.78   \$40.96 \$53.71 31.1% </td <td>2013 Average 2014 Average Percentage Change 2013 Average 2014 Average   \$38.10 \$51.17 47.8% \$41.11 \$55.77   \$34.22 \$44.03 28.7% \$35.56 \$47.81   \$36.00 \$47.60 32.2% \$37.70 \$52.94   \$38.72 \$45.39 17.2% \$42.12 \$48.60   \$40.51 \$58.81 45.2% \$43.52 \$67.78   \$31.55 \$39.54 25.3% \$33.28 \$42.04   \$34.56 \$43.77 26.7% \$36.15 \$47.36   \$32.94 \$41.68 26.6% \$34.35 \$45.00   \$34.00 \$41.55 22.2% \$35.70 \$44.22   \$38.16 \$54.50 42.8% \$40.63 \$62.99   \$39.29 \$55.82 42.1% \$42.18 \$65.03   \$37.21 \$49.60 32.6% \$39.72 \$56.08   \$37.41 \$49.60 32.6% \$39.72 \$56.08   \$37.28 \$50.21 34.7%<!--</td--></td>	2013 Average 2014 Average Percentage Change 2013 Average 2014 Average   \$38.10 \$51.17 47.8% \$41.11 \$55.77   \$34.22 \$44.03 28.7% \$35.56 \$47.81   \$36.00 \$47.60 32.2% \$37.70 \$52.94   \$38.72 \$45.39 17.2% \$42.12 \$48.60   \$40.51 \$58.81 45.2% \$43.52 \$67.78   \$31.55 \$39.54 25.3% \$33.28 \$42.04   \$34.56 \$43.77 26.7% \$36.15 \$47.36   \$32.94 \$41.68 26.6% \$34.35 \$45.00   \$34.00 \$41.55 22.2% \$35.70 \$44.22   \$38.16 \$54.50 42.8% \$40.63 \$62.99   \$39.29 \$55.82 42.1% \$42.18 \$65.03   \$37.21 \$49.60 32.6% \$39.72 \$56.08   \$37.41 \$49.60 32.6% \$39.72 \$56.08   \$37.28 \$50.21 34.7% </td

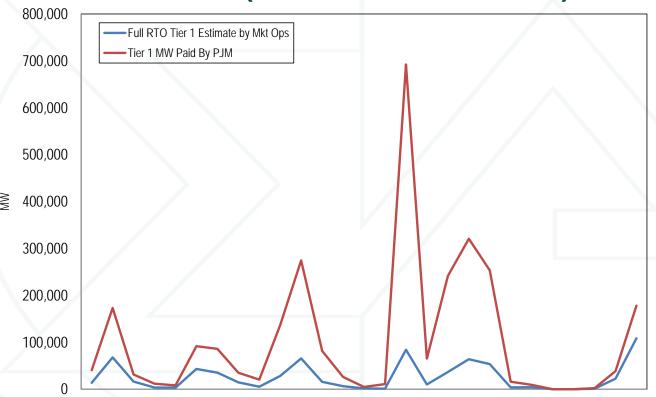
### Energy uplift charges by category: 2013 and 2014

				Percentage
Category	2013	2014	Change	Change
Day-Ahead Operating Reserves	\$86,253,659	\$111,401,640	\$25,147,981	29.2%
Balancing Operating Reserves	\$383,592,215	\$790,782,400	\$407,190,185	106.2%
Reactive Services	\$311,445,099	\$29,424,049	(\$282,021,050)	(90.6%)
Synchronous Condensing	\$396,377	\$103,914	(\$292,463)	(73.8%)
Black Start Services	\$86,701,561	\$32,994,983	(\$53,706,578)	(61.9%)
Total	\$868,388,911	\$964,706,987	\$96,318,076	11.1%

### **MMU** estimate of Tier 1 overpayments

			Full RTO Tier 1	MMU Recommended Full RTO	
	Year	Month	Charges	Tier 1 Charges	Overpayments
	2012	Oct	\$656,858	\$234,223	\$422,635
	2012	Nov	\$4,005,387	\$1,323,237	\$2,682,150
	2012	Dec	\$439,238	\$209,864	\$229,373
	2013	Jan	\$1,099,271	\$254,695	\$844,576
	2013	Feb	\$180,211	\$73,781	\$106,430
	2013	Mar	\$2,408,969	\$952,776	\$1,456,193
	2013	Apr	\$1,233,268	\$493,946	\$739,321
	2013	May	\$698,046	\$220,910	\$477,135
	2013	Jun	\$248,707	\$61,800	\$186,907
	2013	Jul	\$2,196,447	\$424,491	\$1,771,956
	2013	Aug	\$1,795,017	\$388,888	\$1,406,129
	2013	Sep	\$2,335,717	\$268,873	\$2,066,844
	2013	Oct	\$98,903	\$22,229	\$76,673
	2013	Nov	\$9,763	\$2,687	\$7,076
	2013	Dec	\$170,658	\$18,134	\$152,524
	2014	Jan	\$62,316,492	\$4,874,314	\$57,442,178
	2014	Feb	\$2,625,303	\$337,903	\$2,287,400
	2014	Mar	\$10,440,088	\$1,513,636	\$8,926,452
	2014	Apr	\$4,952,859	\$916,275	\$4,036,584
	2014	May	\$4,012,285	\$799,911	\$3,212,374
	2014	Jun	\$566,292	\$118,273	\$448,019
	2014	Jul	\$155,744	\$67,078	\$88,667
	2014	Aug	\$0	\$0	\$0
	2014	Sep	\$0	\$0	\$0
	2014	Oct	\$46,319	\$22,336	\$23,983
	2014	Nov	\$596,337	\$306,511	\$289,827
	2014	Dec	\$1,285,335	\$731,052	\$554,283
		Total	\$104,573,513	\$14,637,824	\$89,935,689
		and a second second		0	

### MW of Tier 1 Paid vs MW Tier 1 Estimated by Market **Solution (Oct 2012 – Dec 2014)**



Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



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