PJM Tier 1 Compensation DRAFT

Tier 1 Compensation Education Planning January 5, 2015

Monitoring Analytics



Tier 1 Synchronized Reserve Credits

- Tier 1 resources are awarded credits under two circumstance
 - Response to a spinning event. Tier 1 resources are paid a locational Synchronized Energy Premium Price (integrated increase in output over the length of the event times average of the 5-min LMPs plus \$50/MWh).
 - When the NSRMCP is > \$0. Resources are paid the zonal SRMCP.



Payments for NSRMCP > \$0

445 hours in 2014 (Jan 1 – Dec 15)

		Total Hours When NSRMCP	Weighted Average SRMCP For Hours	Total Tier 1 MW Credited for Hours	Total Tier 1 Credits Paid When NSRMCP	Average Tier 1 MW
Year	Month	> \$0	When NSRMCP > \$0	When NSRMCP > \$0	> \$0	Paid
2014	Jan	155	\$93.26	706,479	\$64,956,018	4,557.9
2014	Feb	15	\$40.18	65,332	\$2,625,303	4,355.5
2014	Mar	67	\$44.56	240,625	\$10,665,198	3,591.4
2014	Apr	99	\$16.07	308,759	\$4,959,232	3,118.8
2014	May	61	\$15.85	253,076	\$4,012,285	4,148.8
2014	Jun	4	\$35.46	15,970	\$566,292	3,992.4
2014	Jul	5	\$17.02	9,150	\$155,744	1,829.9
2014	Aug	0	NA	NA	NA	NA
2014	Sep	0	NA	NA	NA	NA
2014	Oct	3	\$21.59	2,146	\$46,319	715.2
2014	Nov	28	\$15.73	38,188	\$599,147	1,363.8
2014	Dec	8	\$2.67	12,191	\$32,538	1,523.8
	Total	445	\$30.24	1,651,914	\$88,618,076	2,919.8



Monitoring Analytics

Payment for Response to Spin Events

7 hours in 2014 (Jan 1 - Dec 15)

Year	Month	Spinning Event Response Hours	Total Tier 1 Spinning Event Response MW	Total Tier 1 Spinning Event Response Credits	Tier 1 Synchronized Reserve Response Cost	Average Tier 1 MW Response
2014	Jan	15	7,828	\$965,846	\$123.39	560.8
2014	Feb	1	273	\$11,153	\$40.82	293.1
2014	Mar	5	3,030	\$175,902	\$58.06	605.9
2014	Apr	2	389	\$6,378	\$16.39	199.8
2014	May	3	717	\$34,906	\$48.68	242.0
	Jun	0	NA	NA	NA	
2014	Jul	2	616	\$35,179	\$57.15	307.9
	Aug	0	NA	NA	NA	NA
2014	Sep	3	1,936	\$143,574	\$74.15	645.7
2014	Oct	2	1,132	\$83,901	\$74.14	585.5
2014	Nov	4	1,350	\$38,895	\$28.81	356.0
2014	Dec	0	NA	NA	NA	NA
	Total	37	17,270	\$1,495,733	\$57.95	421.9







Incorrect Calculation of Tier 1 MW in Settlements.

 MMU notes that payments have been incorrectly calculated. Settled tier 1 MW should be based on tier 1 estimated by the market solution(s). Tier 1 MW credited are based on eMeter (Power Meter) and (until late June, 2014) were 3 times greater than the tier 1 estimate. The impact of this is shown in the table below.



Effect of using Power Meter tier 1 MW instead of estimated tier 1 MW when NSRMCP>\$0 (Oct 1, 2012 – Dec 10, 2014)

2012 Oct \$655,254 \$233,764 \$1,603 \$458 \$656,858 \$234,223 \$422 2012 Nov \$3,865,259 \$1,277,486 \$140,128 \$45,751 \$4,005,387 \$1,323,237 \$2,682 2012 Dec \$439,238 \$209,864 \$0 \$0 \$439,238 \$229,864 \$229 2013 Jan \$1,099,271 \$254,695 \$0 \$0 \$1,099,271 \$254,695 \$844 2013 Mar \$2,408,969 \$952,776 \$0 \$0 \$24,08,969 \$952,776 \$1,456 2013 Mar \$2,408,969 \$952,776 \$0 \$0 \$24,08,969 \$952,776 \$1,456 2013 May \$681,357 \$215,651 \$16,688 \$5,260 \$668,046 \$220,910 \$477 2013 Jun \$247,188 \$61,479 \$1,520 \$321 \$248,707 \$64,800 \$186 2013 Jul \$2,178,731 \$421,124 \$17,716 \$3,367 <								
2012 Oct \$655,254 \$233,764 \$1,603 \$458 \$656,858 \$234,223 \$422 2012 Nov \$3,865,259 \$1,277,486 \$140,128 \$45,751 \$4,005,387 \$1,323,237 \$2,682 2012 Dec \$439,238 \$209,864 \$0 \$0 \$439,238 \$229,864 \$229 2013 Jan \$1,099,271 \$254,695 \$0 \$0 \$1,099,271 \$254,695 \$844 2013 Mar \$2,408,969 \$952,776 \$0 \$0 \$2,408,969 \$952,776 \$1,456 2013 Mar \$2,408,969 \$952,776 \$0 \$0 \$2,408,969 \$952,776 \$1,456 2013 May \$681,357 \$215,651 \$16,688 \$5,260 \$698,046 \$229,910 \$477 2013 Jun \$2,478,731 \$421,124 \$17,716 \$3,367 \$2,196,447 \$424,491 \$1,771 2013 Jul \$2,178,731 \$421,124 \$17,716 \$3,367 <th>Year Month</th> <th>Credits Actually</th> <th>Credits if Tier 1</th> <th>Credits</th> <th>if Tier 1 Estimate</th> <th>Credits</th> <th>if Tier 1 Estimate</th> <th>Difference</th>	Year Month	Credits Actually	Credits if Tier 1	Credits	if Tier 1 Estimate	Credits	if Tier 1 Estimate	Difference
2012Nov\$3,865,259\$1,277,486\$140,128\$45,751\$4,005,387\$1,323,237\$2,6822012Dec\$439,238\$209,864\$0\$0\$439,238\$209,864\$2292013Jan\$1,099,271\$254,695\$0\$0\$1,099,271\$254,695\$8442013Feb\$180,211\$73,781\$0\$0\$180,211\$73,781\$1062013Mar\$2,408,969\$952,776\$0\$0\$2,408,969\$952,776\$1,4562013Apr\$1,185,455\$479,173\$47,812\$14,773\$1,323,268\$493,946\$7392013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jun\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,6662013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$772013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$4,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316\$14,814,314								\$422,635
2012Dec\$439,238\$209,864\$0\$0\$439,238\$209,864\$2292013Jan\$1,099,271\$254,695\$0\$0\$1,099,271\$254,695\$8442013Feb\$180,211\$73,781\$0\$0\$1,099,271\$254,695\$8442013Mar\$2,408,969\$952,776\$10\$0\$2,408,969\$952,776\$1,4562013Mar\$1,185,455\$479,173\$47,812\$14,773\$1,233,268\$493,946\$7392013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$24,71,88\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7712013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,637\$57,4422014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$7	2012 Nov				\$45,751		· · · · · · · · · · · · · · · · · · ·	\$2,682,150
2013Jan\$1,099,271\$254,695\$0\$0\$1,099,271\$254,695\$8442013Feb\$180,211\$73,781\$0\$0\$180,211\$73,781\$1062013Mar\$2,408,969\$952,776\$0\$0\$2,408,969\$952,776\$1,4562013Apr\$1,185,455\$479,173\$47,812\$14,773\$1,233,268\$493,946\$7392013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,19,6,447\$424,491\$1,7712013Jul\$2,178,731\$421,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$9,633\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,697,375\$1,306,227\$62,316,492\$4,874,314\$7,4422014Feb\$1,766,397\$228,679\$86,896\$109,324\$2,625,303\$337,903<	2012 Dec			\$0	\$0	\$439,238	\$209,864	\$229,373
2013Mar\$2,408,969\$952,776\$0\$0\$2,408,969\$952,776\$1,4562013Apr\$1,185,455\$479,173\$47,812\$14,773\$1,233,268\$493,946\$7392013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$4424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014May\$1,659,372\$483,967	2013 Jan			\$0	\$0			\$844,576
2013Apr\$1,185,455\$479,173\$47,812\$14,773\$1,233,268\$493,946\$7392013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jun\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7112013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$888,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014May\$1,659,372\$483,967\$2,304,403\$3390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Feb	\$180,211	\$73,781	\$0	\$0	\$180,211	\$73,781	\$106,430
2013May\$681,357\$215,651\$16,688\$5,260\$698,046\$220,910\$4772013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$97,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$888,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Mar\$2,648,456\$525,691 </td <td>2013 Mar</td> <td>r \$2,408,969</td> <td>\$952,776</td> <td>\$0</td> <td>\$0</td> <td>\$2,408,969</td> <td>\$952,776</td> <td>\$1,456,193</td>	2013 Mar	r \$2,408,969	\$952,776	\$0	\$0	\$2,408,969	\$952,776	\$1,456,193
2013Jun\$247,188\$61,479\$1,520\$321\$248,707\$61,800\$1862013Jul\$2,178,731\$421,124\$17,716\$32,367\$2,196,447\$424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$868,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,18,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Apr	\$1,185,455	\$479,173	\$47,812	\$14,773	\$1,233,268	\$493,946	\$739,321
2013Jul\$2,178,731\$421,124\$17,716\$3,367\$2,196,447\$424,491\$1,7712013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$1,4062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$772013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,2859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 May	y \$681,357	\$215,651	\$16,688	\$5,260	\$698,046	\$220,910	\$477,135
2013Aug\$1,213,299\$278,125\$581,718\$110,764\$1,795,017\$388,888\$14,062013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$772013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Jun	\$247,188	\$61,479	\$1,520	\$321	\$248,707	\$61,800	\$186,907
2013Sep\$2,056,147\$216,591\$279,570\$52,282\$2,335,717\$268,873\$2,0662013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Jul	\$2,178,731	\$421,124	\$17,716	\$3,367	\$2,196,447	\$424,491	\$1,771,956
2013Oct\$84,208\$20,083\$14,695\$2,147\$98,903\$22,229\$762013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$868,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Aug	g \$1,213,299	\$278,125	\$581,718	\$110,764	\$1,795,017	\$388,888	\$1,406,129
2013Nov\$6,459\$1,216\$3,304\$1,471\$9,763\$2,687\$72013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Sep	p \$2,056,147	\$216,591	\$279,570	\$52,282	\$2,335,717	\$268,873	\$2,066,844
2013Dec\$100,461\$9,219\$70,197\$8,915\$170,658\$18,134\$1522014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,2859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Oct	t \$84,208	\$20,083	\$14,695	\$2,147	\$98,903	\$22,229	\$76,673
2014Jan\$43,637,118\$3,568,087\$18,679,375\$1,306,227\$62,316,492\$4,874,314\$57,4422014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$3390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Nov	v \$6,459	\$1,216	\$3,304	\$1,471	\$9,763	\$2,687	\$7,076
2014Feb\$1,766,397\$228,579\$858,906\$109,324\$2,625,303\$337,903\$2,2872014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2013 Dec	c \$100,461	\$9,219	\$70,197	\$8,915	\$170,658	\$18,134	\$152,524
2014Mar\$7,800,331\$1,188,555\$2,639,757\$325,081\$10,440,088\$1,513,636\$8,9262014Apr\$2,648,456\$525,691\$2,304,403\$390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2014 Jan	h \$43,637,118	\$3,568,087	\$18,679,375	\$1,306,227	\$62,316,492	\$4,874,314	\$57,442,178
2014Apr\$2,648,456\$525,691\$2,304,403\$390,583\$4,952,859\$916,275\$4,0362014May\$1,659,372\$483,967\$2,352,913\$315,944\$4,012,285\$799,911\$3,212	2014 Feb	\$1,766,397	\$228,579	\$858,906	\$109,324	\$2,625,303	\$337,903	\$2,287,400
2014 May \$1,659,372 \$483,967 \$2,352,913 \$315,944 \$4,012,285 \$799,911 \$3,212	2014 Mar	r \$7,800,331	\$1,188,555	\$2,639,757	\$325,081	\$10,440,088	\$1,513,636	\$8,926,452
	2014 Apr	\$2,648,456	\$525,691	\$2,304,403	\$390,583	\$4,952,859	\$916,275	\$4,036,584
2014 Jun \$227.198 \$73.258 \$339.094 \$45.015 \$566.292 \$118.273 \$448	2014 May	y \$1,659,372	\$483,967	\$2,352,913	\$315,944	\$4,012,285	\$799,911	\$3,212,374
	2014 Jun	n \$227,198	\$73,258	\$339,094	\$45,015	\$566,292	\$118,273	\$448,019
2014 Jul \$65,760 \$37,224 \$89,985 \$29,854 \$155,744 \$67,078 \$88	2014 Jul	\$65,760	\$37,224	\$89,985	\$29,854	\$155,744	\$67,078	\$88,667
2014 Aug \$0 \$0 \$0 \$0 \$0 \$0	2014 Aug	g \$0	\$0	\$0	\$0	\$0	\$0	\$0
2014 Sep \$0 \$0 \$0 \$0 \$0 \$0	2014 Sep	p \$0	\$0	\$0	\$0	\$0	\$0	\$O
2014 Oct \$18,596 \$17,636 \$27,722 \$4,700 \$46,319 \$22,336 \$23	2014 Oct	t \$18,596	\$17,636	\$27,722	\$4,700	\$46,319	\$22,336	\$23,983
2014 Nov \$212,960 \$122,832 \$383,377 \$183,679 \$596,337 \$306,511 \$289	2014 Nov	v \$212,960	\$122,832	\$383,377	\$183,679	\$596,337	\$306,511	\$289,827
2014 Dec \$12,606 \$12,997 \$19,932 \$9,387 \$32,538 \$22,383 \$10	2014 Dec	c \$12,606	\$12,997	\$19,932	\$9,387	\$32,538	\$22,383	\$10,155
Total \$74,450,301 \$10,963,852 \$28,870,416 \$2,965,303 \$103,320,717 \$13,929,155 \$89,391	Total	al \$74,450,301	\$10,963,852	\$28,870,416	\$2,965,303	\$103,320,717	\$13,929,155	\$89,391,561

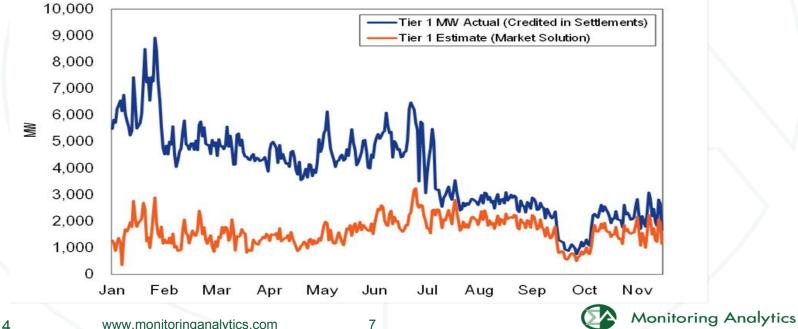


Monitoring Analytics

6

Tier 1 Estimate (Mkt Ops) vs Tier 1 **Credits (Mkt Settlements)**

In late June credited MW more closely aligned with Operational Tier 1 Estimate.



Monitoring Analytics, LLC 2621 Van Buren Avenue Suite 160 Eagleville, PA 19403 (610) 271-8050 MA@monitoringanalytics.com www.MonitoringAnalytics.com



8