

# Market Monitor Report

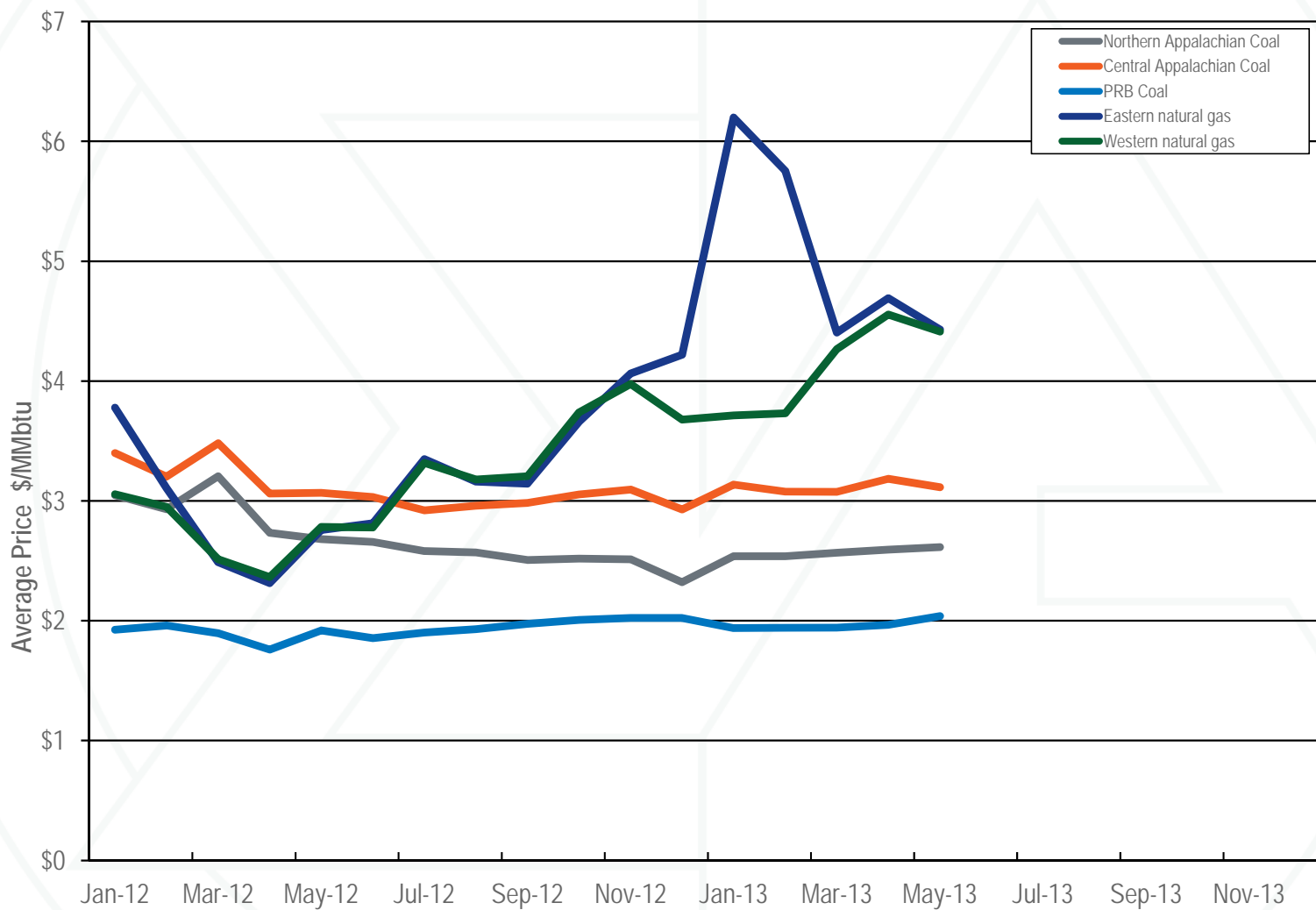
Members Committee  
Webinar  
July 29, 2013

Joseph Bowring

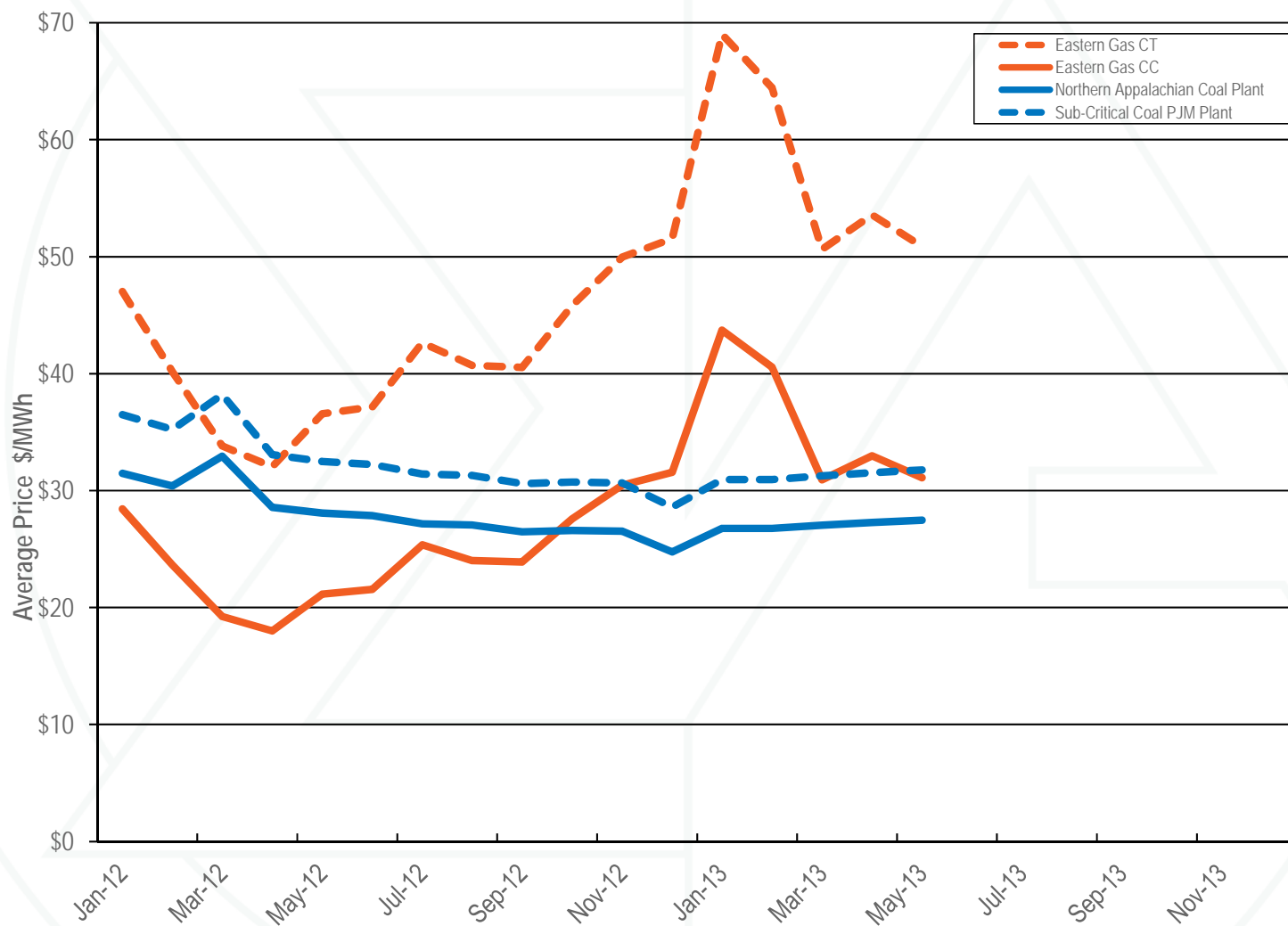


Monitoring Analytics

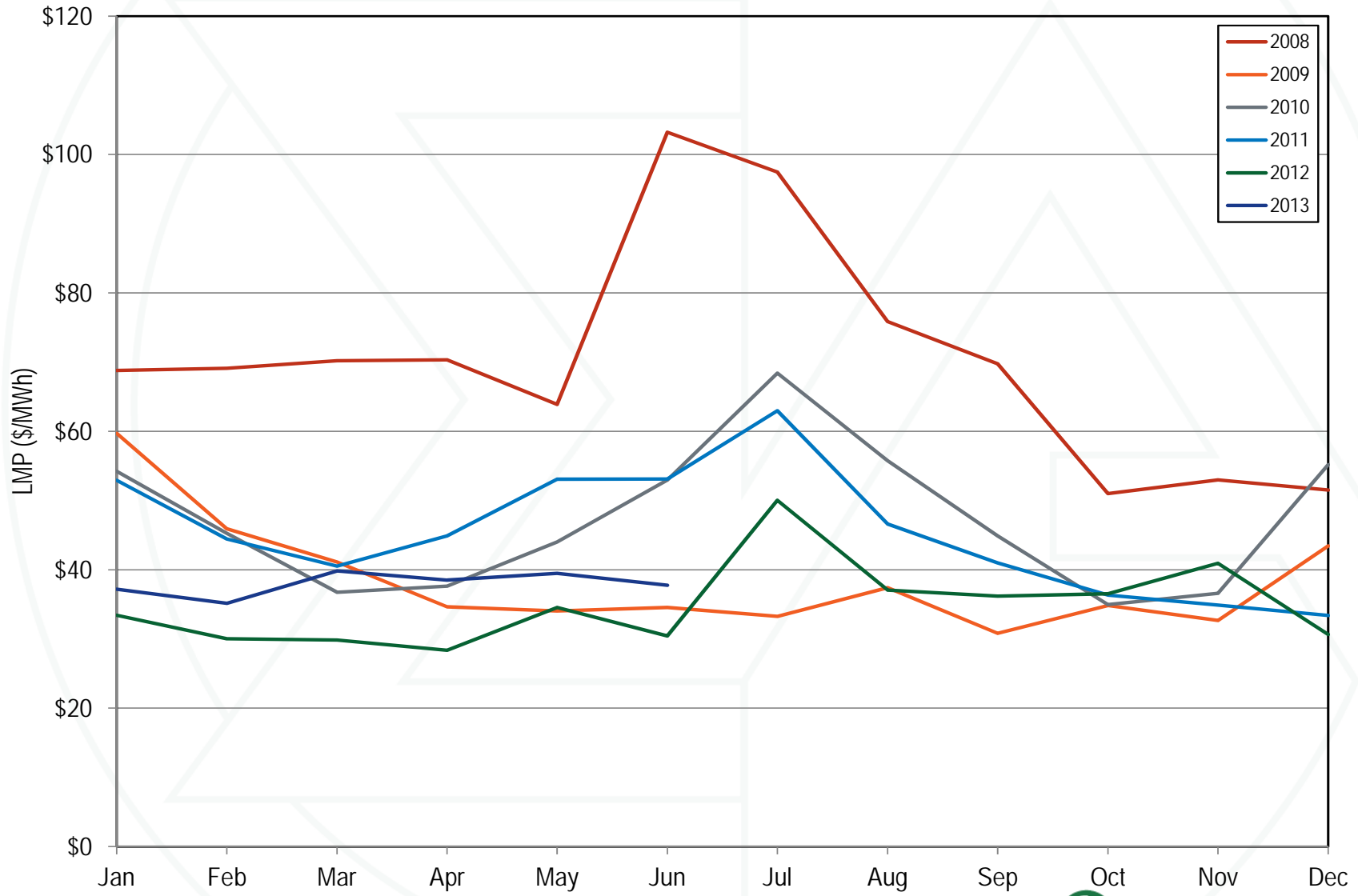
## Spot average fuel price comparison: 2012 and January through June 2013 (\$/MMBtu)



# Average Cost of Generation for New Entrant CC, CT, CP, and average PJM coal unit: 2012 and 2013



# PJM real-time, monthly, load-weighted, average LMP: January 2008 through June of 2013



# PJM Generation (By fuel source (GWh)): January through June 2012 and 2013

	Jan-Jun 2012		Jan-Jun 2013		Change in Output
	GWh	Percent	GWh	Percent	
Coal	154,044.1	40.3%	171,440.7	44.3%	11.3%
Standard Coal	149,360.6	39.1%	166,494.3	43.0%	11.1%
Waste Coal	4,683.5	1.2%	4,946.4	1.3%	0.2%
Nuclear	134,802.4	35.3%	135,858.8	35.1%	0.8%
Gas	73,981.7	19.4%	60,747.3	15.7%	(17.9%)
Natural Gas	72,856.9	19.1%	59,623.6	15.4%	(18.2%)
Landfill Gas	1,124.6	0.3%	1,123.7	0.3%	(0.1%)
Biomass Gas	0.2	0.0%	0.0	0.0%	(99.0%)
Hydroelectric	6,815.9	1.8%	7,502.2	1.9%	10.1%
Wind	7,305.5	1.9%	8,561.5	2.2%	17.2%
Waste	2,560.9	0.7%	2,399.3	0.6%	(6.3%)
Solid Waste	2,060.0	0.5%	1,993.9	0.5%	(3.2%)
Miscellaneous	500.9	0.1%	405.4	0.1%	(19.1%)
Oil	2,387.2	0.6%	626.7	0.2%	(73.7%)
Heavy Oil	2,287.6	0.6%	557.8	0.1%	(75.6%)
Light Oil	94.1	0.0%	59.0	0.0%	(37.2%)
Diesel	4.4	0.0%	2.7	0.0%	(39.4%)
Kerosene	1.2	0.0%	7.2	0.0%	494.0%
Jet Oil	0.0	0.0%	0.0	0.0%	14.2%
Solar	117.7	0.0%	175.9	0.0%	49.5%
Battery	0.1	0.0%	0.2	0.0%	151.5%
Total	382,015.4	100.0%	387,312.7	100.0%	1.4%

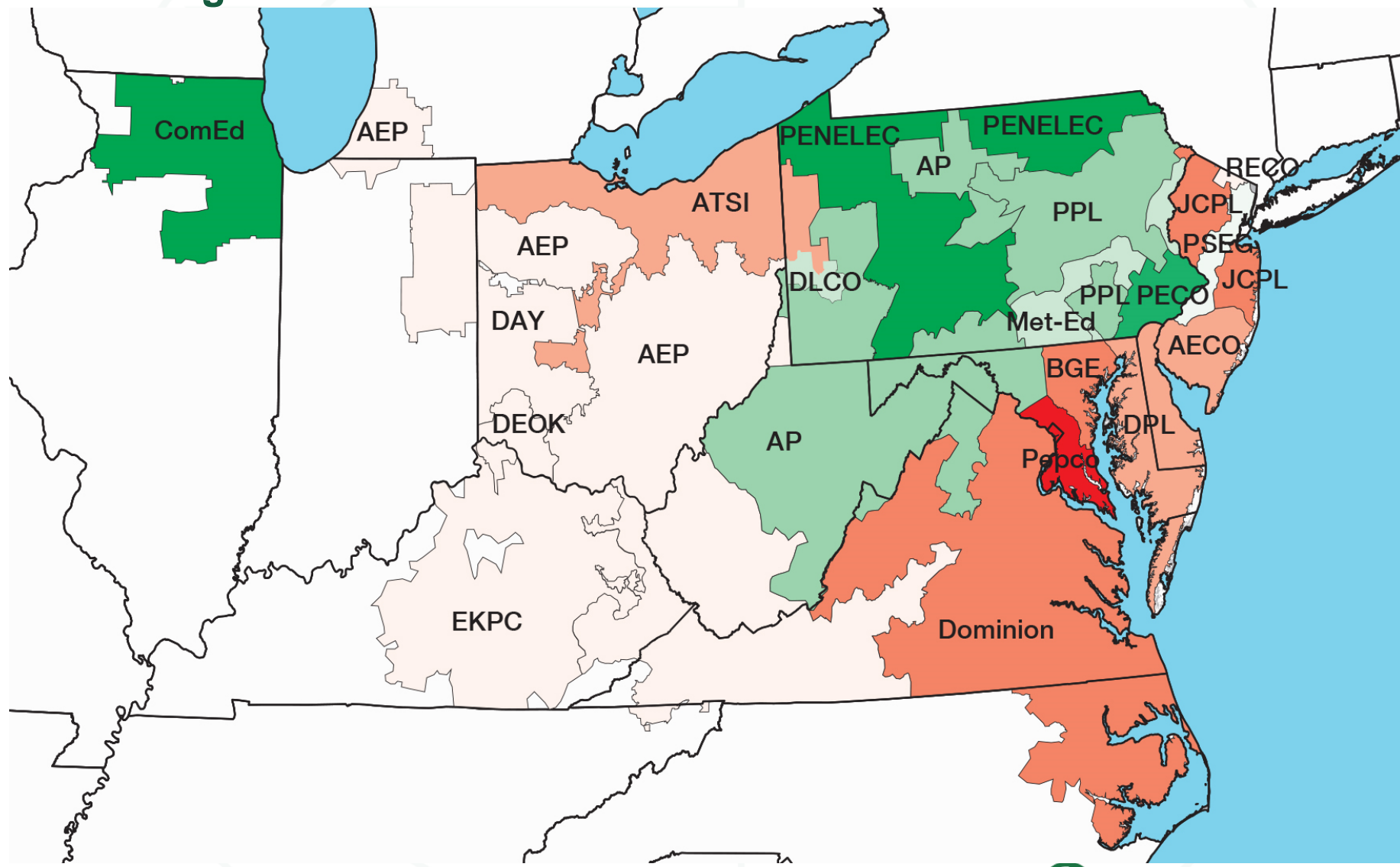


## Monthly PJM Generation (By fuel source (GWh)): January through June 2013

	Jan	Feb	Mar	Apr	May	Jun	Total
Coal	31,689.2	28,886.8	29,680.4	24,637.5	25,824.6	30,722.3	171,440.7
Standard Coal	30,814.3	28,102.4	28,670.2	24,060.8	24,962.6	29,884.0	166,494.3
Waste Coal	874.9	784.4	1,010.2	576.7	862.0	838.3	4,946.4
Nuclear	25,610.7	22,563.1	23,854.9	19,614.0	21,106.9	23,109.3	135,858.8
Gas	10,261.4	10,319.8	10,055.6	9,276.0	10,240.2	10,594.4	60,747.3
Natural Gas	10,072.4	10,143.6	9,859.7	9,096.1	10,047.2	10,404.5	59,623.6
Landfill Gas	189.0	176.2	195.9	179.9	193.0	189.8	1,123.7
Biomass Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydroelectric	1,234.0	1,127.0	1,215.8	1,273.0	1,250.7	1,401.7	7,502.2
Wind	1,784.4	1,397.5	1,606.2	1,639.6	1,271.3	862.5	8,561.5
Waste	414.4	385.2	391.5	358.2	421.3	428.7	2,399.3
Solid Waste	324.8	301.5	325.2	323.9	349.9	368.6	1,993.9
Miscellaneous	89.6	83.7	66.2	34.3	71.4	60.2	405.4
Oil	62.5	23.8	50.3	79.1	220.3	190.7	626.7
Heavy Oil	55.8	21.9	27.9	66.8	206.1	179.4	557.8
Light Oil	4.2	1.5	17.7	11.7	13.2	10.7	59.0
Diesel	0.6	0.1	0.0	0.5	1.1	0.4	2.7
Kerosene	1.9	0.3	4.7	0.1	0.0	0.2	7.2
Jet Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	15.6	17.6	26.7	38.1	39.6	38.4	175.9
Battery	0.1	0.0	0.0	0.0	0.1	0.1	0.2
<b>Total</b>	<b>71,072.0</b>	<b>64,720.7</b>	<b>66,881.4</b>	<b>56,915.4</b>	<b>60,374.9</b>	<b>67,348.2</b>	<b>387,312.7</b>



# PJM real-time generation less real-time load by zone: January through June of 2013



## Monthly operating reserve charges: 2012 and 2013

	2012						2013					
	Day-Ahead	Balancing	Reactive Services	Synchronous Condensing	Black Start	Total	Day-Ahead	Balancing	Reactive Services	Synchronous Condensing	Black Start Services	Total
Jan	\$8,311,574	\$27,341,331	\$2,934,337	\$27,037	\$0	\$38,614,279	\$11,161,579	\$79,186,346	\$23,604,234	\$1,873	\$8,453,397	\$122,407,430
Feb	\$5,858,308	\$24,877,526	\$13,108,017	\$18,592	\$0	\$43,862,444	\$5,071,156	\$67,100,983	\$17,624,984	\$0	\$6,988,632	\$96,785,754
Mar	\$3,852,873	\$29,758,387	\$6,731,994	\$1,648	\$0	\$40,344,903	\$7,003,778	\$17,485,557	\$14,350,138	\$0	\$6,768,618	\$45,608,091
Apr	\$2,967,302	\$34,172,651	\$4,521,280	\$0	\$0	\$41,661,233	\$5,712,618	\$23,636,368	\$13,670,581	\$0	\$9,242,815	\$52,262,382
May	\$7,956,965	\$43,761,595	\$5,392,428	\$0	\$0	\$57,110,987	\$10,613,963	\$22,962,726	\$17,189,489	\$959	\$8,645,457	\$59,412,594
Jun	\$6,973,548	\$45,706,864	\$5,133,009	\$0	\$0	\$57,813,421	\$9,413,019	\$17,804,992	\$22,055,476	\$0	\$7,822,022	\$57,095,510
Jul	\$11,773,179	\$66,592,698	\$2,960,922	\$0	\$0	\$81,326,798						
Aug	\$8,692,702	\$47,698,841	\$4,112,186	\$0	\$0	\$60,503,728						
Sep	\$28,877,736	\$32,849,356	\$4,458,891	\$24,366	\$0	\$66,210,349						
Oct	\$23,382,961	\$26,884,798	\$1,253,642	\$38,762	\$0	\$51,560,164						
Nov	\$18,077,440	\$24,494,474	\$120,820	\$0	\$0	\$42,692,735						
Dec	\$7,878,203	\$27,874,133	\$25,282,650	\$37,845	\$8,384,651	\$69,457,482						
Total	\$35,920,569	\$205,618,356	\$37,821,064	\$47,278	\$0	\$279,407,268	\$48,976,113	\$228,176,971	\$108,494,903	\$2,832	\$47,920,941	\$433,571,760
Share of Charges	12.9%	73.6%	13.5%	0.0%	0.0%	100.0%	11.3%	52.6%	25.0%	0.0%	11.1%	100.0%





## Year over year operating reserve charges: 2012 and 2013

### Day Ahead

Type				Jan - Jun 2012	Jan - Jun 2013
	Jan - Jun 2012	Jan - Jun 2013	Change	Share	Share
Day-Ahead Operating Reserve Charges	\$35,920,569	\$35,001,966	(\$918,603)	100.0%	71.5%
Day-Ahead Operating Reserve Charges for Load Response	\$0	\$0	\$0	0.0%	0.0%
Unallocated Congestion Charges	\$0	\$13,974,147	\$13,974,147	0.0%	28.5%
Total	\$35,920,569	\$48,976,113	\$13,055,544	100.0%	100.0%

### Balancing

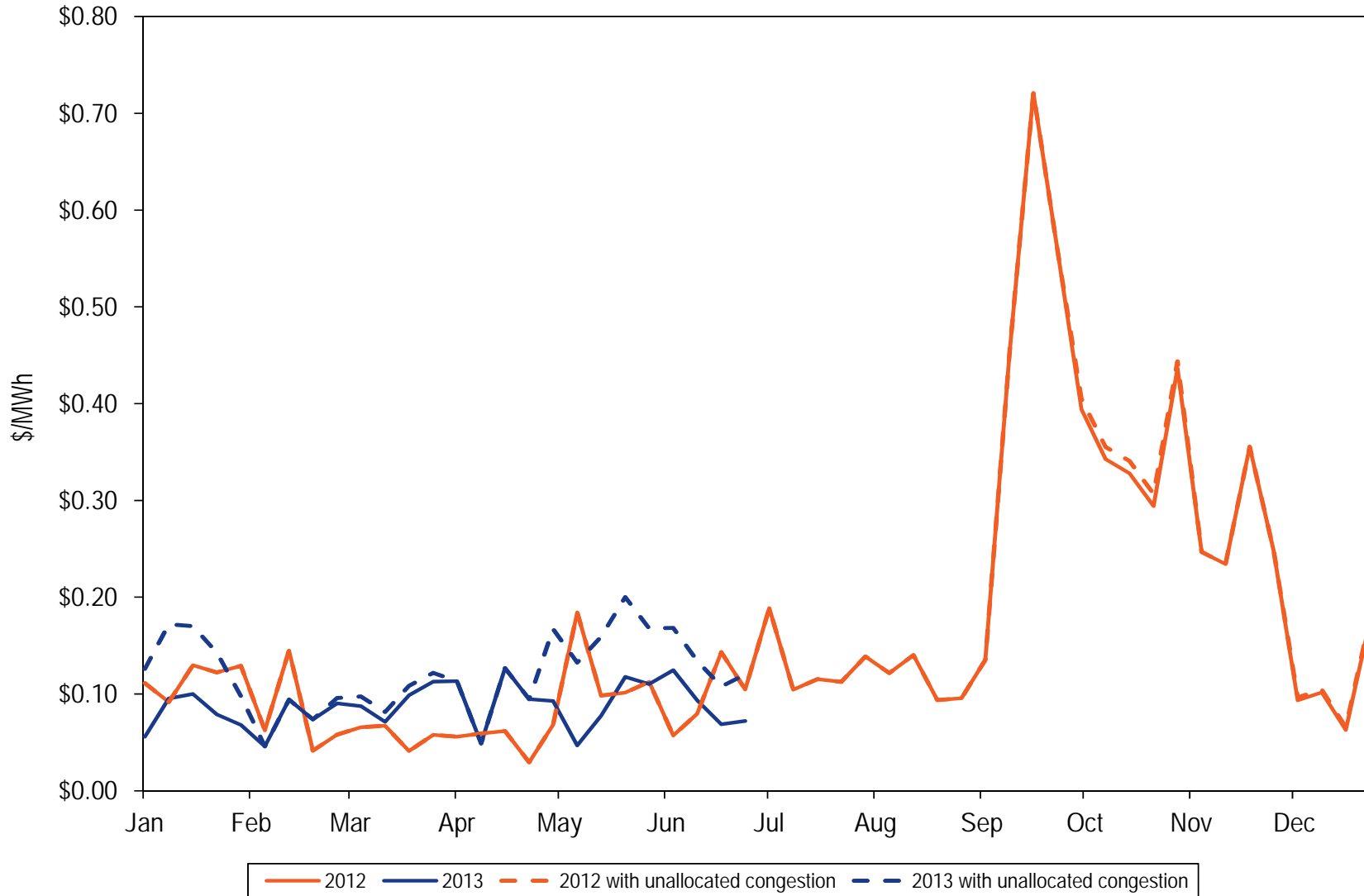
Type				Jan - Jun 2012	Jan - Jun 2013
	Jan - Jun 2012	Jan - Jun 2013	Change	Share	Share
Balancing Operating Reserve Reliability Charges	\$46,989,524	\$27,725,175	(\$19,264,349)	22.9%	12.2%
Balancing Operating Reserve Deviation Charges	\$153,094,228	\$200,428,631	\$47,334,403	74.5%	87.8%
Balancing Operating Reserve Charges for Load Response	\$112,755	\$1,247	(\$111,508)	0.1%	0.0%
Balancing Local Constraint Charges	\$5,421,848	\$21,918	(\$5,399,930)	2.6%	0.0%
Total	\$205,618,356	\$228,176,971	\$22,558,615	100.0%	100.0%

### Other Charges

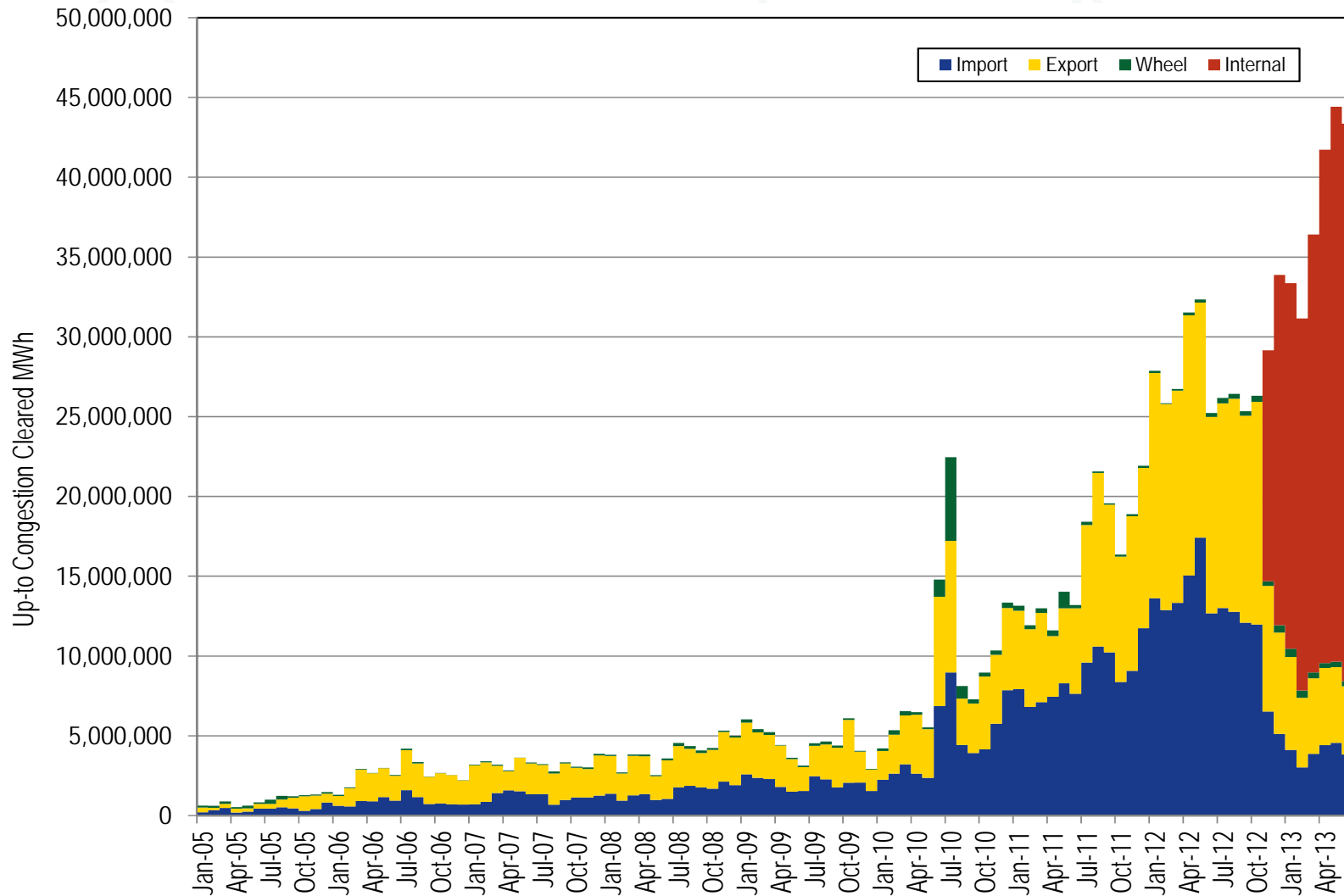
Type				Jan - Jun 2012	Jan - Jun 2013
	Jan - Jun 2012	Jan - Jun 2013	Change	Share	Share
Reactive Services Charges	\$37,821,064	\$108,494,903	\$70,673,838	99.9%	69.4%
Synchronous Condensing Charges	\$47,278	\$2,832	(\$44,446)	0.1%	0.0%
Black Start Services Charges	\$0	\$47,920,941	\$47,920,941	0.0%	30.6%
Total	\$37,868,342	\$156,418,676	\$118,550,333	100.0%	100.0%



# Weekly weighted average day-ahead operating reserve rate (\$/MWh): 2012 and 2013



# PJM cleared up-to congestion transactions by type (MW): January 2005 through June of 2013

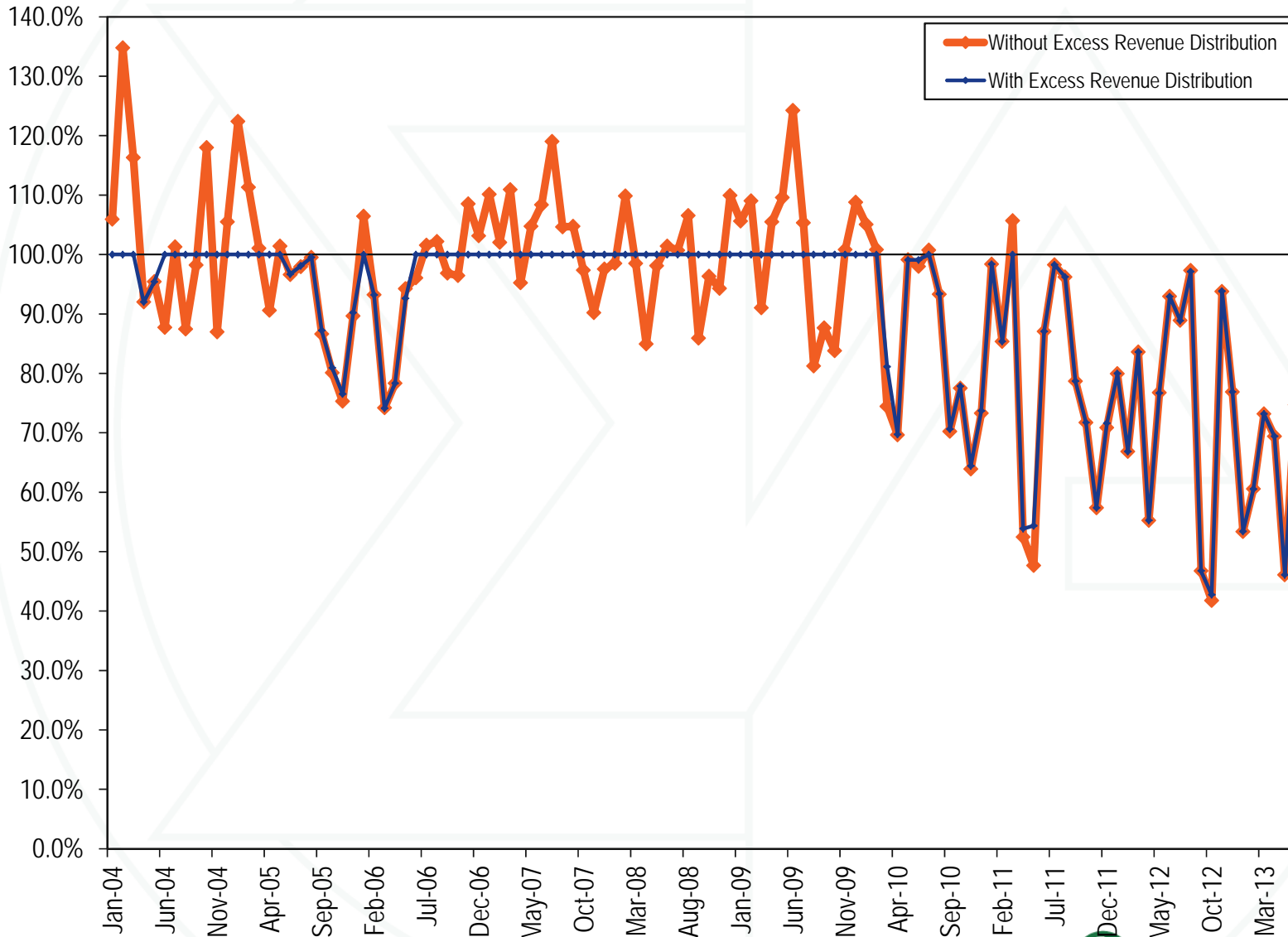


## Cleared UTC Profitability by Source and Sink Point: 2012 calendar year and January 1, 2013 through June 30, 2013

	Cleared UTC Bids	Profitable UTC Bid	UTC Profitable at Source Bus	UTC Profitable at Sink Bus	Profitable UTC	Profitable Source	Profitable Sink
Calendar Year 2012	9,053,260	4,908,131	5,627,266	3,567,325	54.2%	62.2%	39.4%
January-June, 2013	3,766,578	1,905,363	2,386,145	1,386,006	50.6%	63.4%	36.8%



# FTR payout ratio by month, excluding and including excess revenue distribution: January 2004 through June 2013



# End of Planning Period Payout Ratios

Planning Period	FTR Payout Ratio
2003/2004	97.7%
2004/2005	100.0%
2005/2006	90.7%
2006/2007	100.0%
2007/2008	100.0%
2008/2009	100.0%
2009/2010	96.9%
2010/2011	85.0%
2011/2012	80.6%
2012/2013	67.8%
2013/2014	78.2%

\*2013/2014 Through 30-Jun-13



# Monthly Reported Payout Ratios

	Reported Monthly Payout Ratio	Actual Monthly Payout Ratio
Jun-12	93.0%	93.6%
Jul-12	89.0%	90.1%
Aug-12	97.5%	97.7%
Sep-12	47.0%	55.8%
Oct-12	42.7%	50.9%
Nov-12	87.3%	88.5%
Dec-12	72.3%	74.6%
Jan-13	56.8%	59.7%
Feb-13	60.2%	62.5%
Mar-13	74.2%	75.5%
Apr-13	69.0%	70.8%
May-13	51.9%	54.2%
Jun-13	78.2%	79.4%



# Unallocated Congestion Charges to DA Operating Reserves: Planning Periods 12/13 and 13/14

Period	Charge
Oct-12	\$794,752
Dec-12	\$193,429
Jan-13	\$5,233,445
Mar-13	\$701,303
May-13	\$5,210,739
Jun-13	\$2,828,660
2012/2013	\$12,133,668
2013/2014	\$2,828,660





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