Incremental Auction Review

Incremental Auction Senior Task Force March 1, 2017 Joe Bowring John Hyatt



Summary

- A significant amount of replacement capacity is obtained through the RPM Incremental Auctions.
- With very few exceptions, the auction clearing price in Incremental Auctions is below the auction clearing price in the associated BRA.
- The First Incremental Auction price is on average 41 percent below the associated BRA price.







Summary

- The Second Incremental Auction price is on average 45 percent below the associated BRA price.
- The Third Incremental Auction price is on average 43 percent below the associated BRA price.



Sources of replacement capacity June 1, 2007 to June 1, 2016

		Replacen	nent Transa	ctions	UCAP (MW) Locational UCAP Transactions							
	Cleared Buy Bids	Gen	DR	EE	Gen	DR	EE	Excess Commitment Credits	Excess ILR MW Credits	using	Commitment Additions on Replacement Resources	Net Replacements
01-Jun-07	0.0	118.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Replacements 118.5	118.5	0.0
01-Jun-08	766.5	1,819.4	15.0	0.0	0.0	0.0	0.0	0.0	0.0	2,600.9	1,834.4	766.5
01-Jun-09	1,708.6	3,253.1	31.1	0.0	35.8	0.0	0.0	0.0	359.7	5,388.3	3,320.1	2,068.2
01-Jun-10	1,816.4	2,595.5	19.4	0.0	335.7	0.0	0.0	959.9	1,403.5	7,130.4	2,951.4	4,179.0
01-Jun-11	1,805.2	3,467.1	98.3	1.0	538.1	12.7	0.0	2,735.2	2,177.2	10,834.8	4,117.2	6,717.6
01-Jun-12	9,185.9	4,650.0	1,597.5	133.0	1,937.6	13.2	0.0	213.4	0.0	17,730.6	8,330.0	9,400.6
01-Jun-13	12,021.2	3,214.3	4,403.9	708.2	798.6	26.3	48.9	214.2	0.0	21,435.6	9,200.3	12,235.3
01-Jun-14	13,619.7	2,935.2	2,527.2	791.5	1,878.2	45.8	112.3	0.0	0.0	21,909.9	8,294.0	13,615.9
01-Jun-15	11,850.0	2,736.2	2,237.6	651.3	750.5	201.5	153.9	0.0	0.0	18,581.0	6,731.6	11,849.4
01-Jun-16	16,139.9	4,301.4	2,116.8	1,318.6	2,245.9	297.5	51.6	100.0	0.0	26,571.7	10,418.2	16,153.5

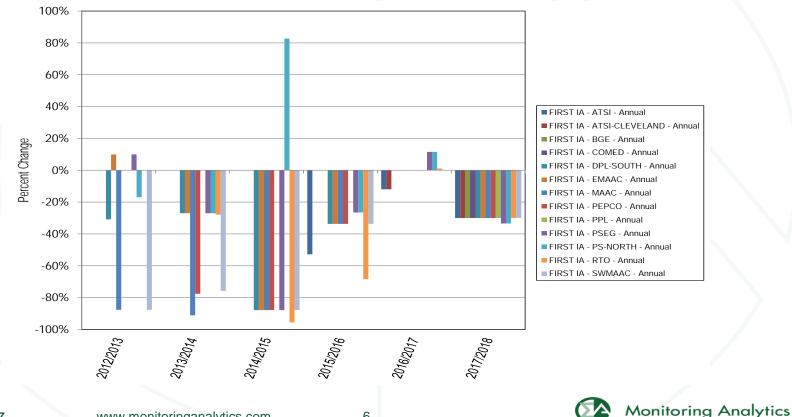


Sources of replacement capacity to total replacements for all Capacity Resources: June 1, 2007 to June 1, 2016

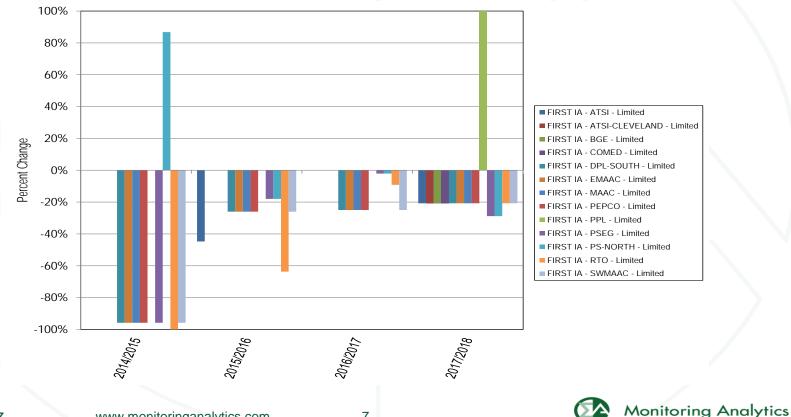
		Replacement Transactions			Locational UCAP Transactions						
	Cleared Buy Bids	Gen	DR	EE	Gen	DR	EE	Excess Commitment Credits	Excess ILR MW Credits	Total Replacements	Major Source of Replacements
01-Jun-07	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	Replacement Transactions - Gen
01-Jun-08	29.5%	70.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	Replacement Transactions - Gen
01-Jun-09	31.7%	60.4%	0.6%	0.0%	0.7%	0.0%	0.0%	0.0%	6.7%	100.0%	Replacement Transactions - Gen
01-Jun-10	25.5%	36.4%	0.3%	0.0%	4.7%	0.0%	0.0%	13.5%	19.7%	100.0%	Replacement Transactions - Gen
01-Jun-11	16.7%	32.0%	0.9%	0.0%	5.0%	0.1%	0.0%	25.2%	20.1%	100.0%	Replacement Transactions - Gen
01-Jun-12	51.8%	26.2%	9.0%	0.8%	10.9%	0.1%	0.0%	1.2%	0.0%	100.0%	Cleared Buy Bids
01-Jun-13	56.1%	15.0%	20.5%	3.3%	3.7%	0.1%	0.2%	1.0%	0.0%	100.0%	Cleared Buy Bids
01-Jun-14	62.2%	13.4%	11.5%	3.6%	8.6%	0.2%	0.5%	0.0%	0.0%	100.0%	Cleared Buy Bids
01-Jun-15	63.8%	14.7%	12.0%	3.5%	4.0%	1.1%	0.8%	0.0%	0.0%	100.0%	Cleared Buy Bids
01-Jun-16	60.7%	16.2%	8.0%	5.0%	8.5%	1.1%	0.2%	0.4%	0.0%	100.0%	Cleared Buy Bids



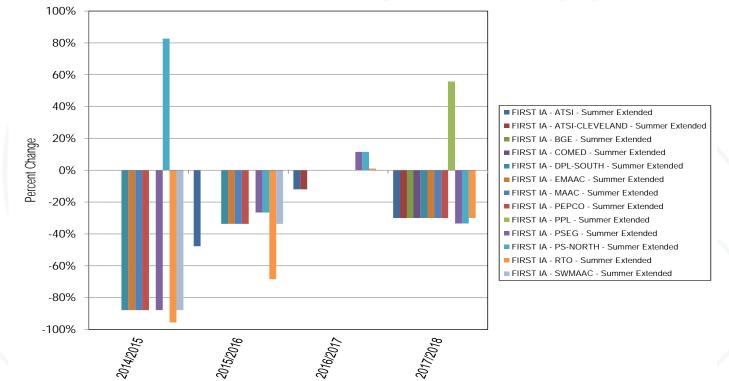
First IA compared to BRA Percent Price Change (Annual)



First IA compared to BRA Percent Price Change (Limited)

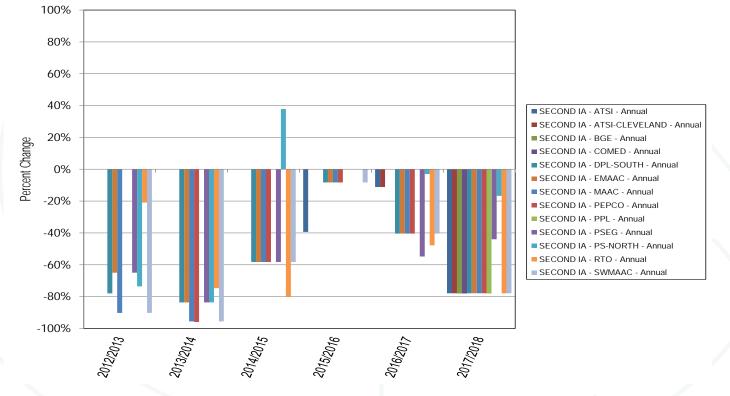


First IA compared to BRA Percent Price Change (Summer Extended)

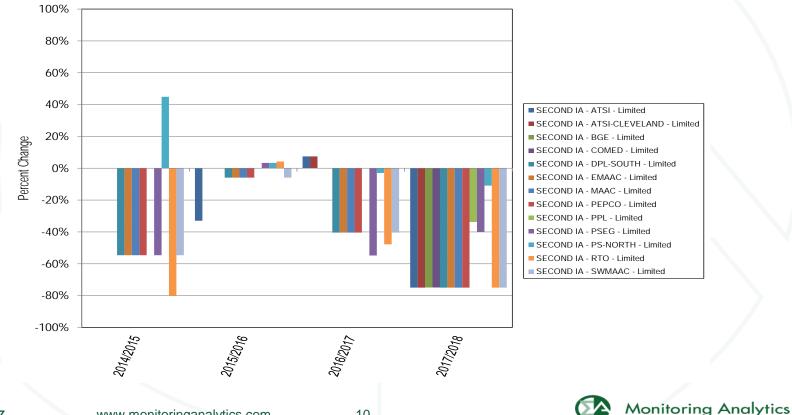




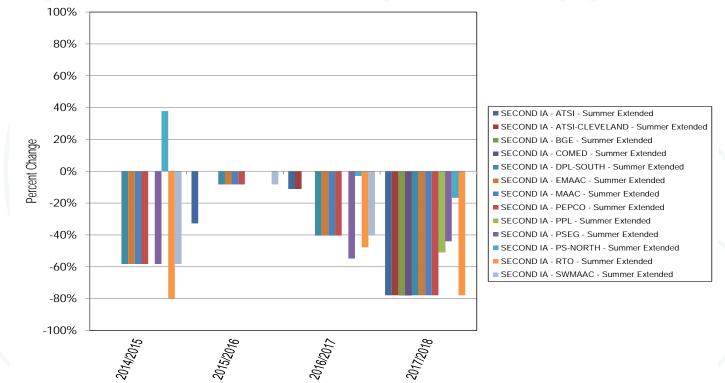
Second IA compared to BRA Percent Price Change (Annual)



Second IA compared to BRA Percent **Price Change (Limited)**

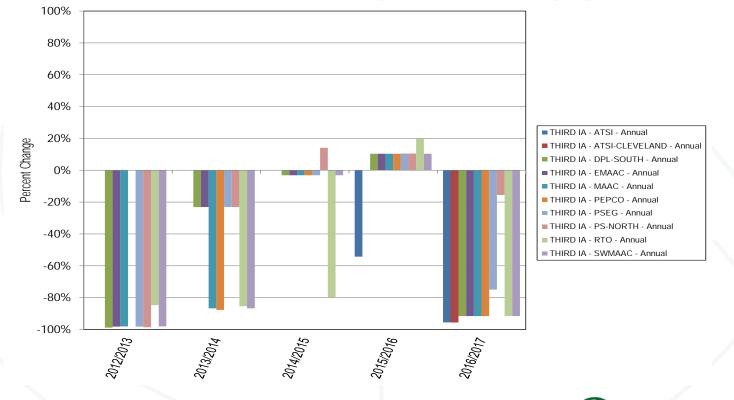


Second IA compared to BRA Percent Price Change (Summer Extended)

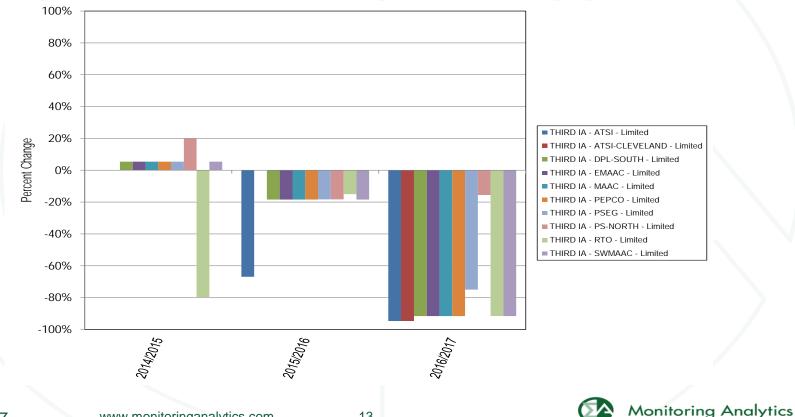




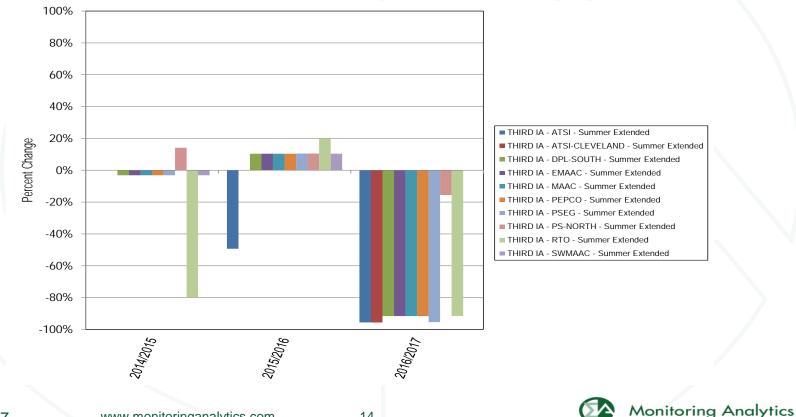
Third IA compared to BRA Percent Price Change (Annual)



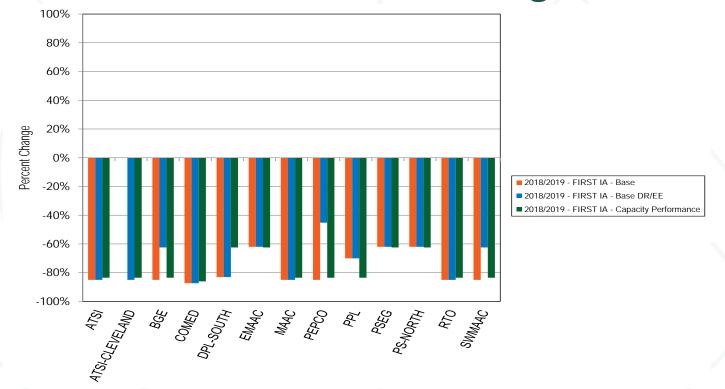
Third IA compared to BRA **Percent Price Change (Limited)**



Third IA compared to BRA **Percent Price Change (Summer Extended)**



2018/2019 First IA compared to BRA Percent Price Change





PJM Sell Offer History

			PJM	Sell Offer	Cleared in Auction		
				Weighted		Weighted	
Delivery Year	Auction	Product Type	MW	Average Price	MW	Average Price	
2012/2013	FIRST	Annual	698.1	\$90.77	469.9	\$98.98	
2012/2013	SECOND	Annual	3,522.3	\$26.05	2,376.8	\$17.59	
2012/2013	THIRD	Annual	2,729.8	\$22.08	1,990.9	\$2.51	
2013/2014	FIRST	Annual	3,263.8	\$58.57	2,494.9	\$58.09	
2013/2014	SECOND	Annual	4,987.0	\$33.10	3,602.1	\$14.63	
2013/2014	THIRD	Annual	1,099.2	\$161.49	605.6	\$186.92	
2014/2015	FIRST	Limited	3,147.8	\$13.64	2,702.4	\$2.43	
2014/2015	SECOND	Annual	2,039.8	\$19.18	1,635.3	\$46.43	
2014/2015	THIRD	Annual	210.6	\$52.53	203.7	\$132.20	
2015/2016	FIRST	Annual	2,126.2	\$42.87	1,876.0	\$75.45	
2015/2016	FIRST	Summer Extended	28.9	\$280.42	0.0	NA	
2015/2016	SECOND	Annual	1,098.2	\$108.82	962.3	\$162.73	
2016/2017	FIRST	Annual	820.7	\$7.88	820.7	\$92.72	
2016/2017	FIRST	Limited	1,022.6	\$58.08	803.1	\$106.00	
2016/2017	SECOND	Annual	4,561.7	\$9.39	4,307.7	\$46.79	
2016/2017	THIRD	Annual	5,223.4	\$9.44	4,818.0	\$6.74	
2017/2018	FIRST	Annual	4,035.0	\$13.53	3,709.9	\$84.42	
2017/2018	SECOND	Summer Extended	122.4	\$37.11	69.5	\$26.50	
2017/2018	SECOND	Annual	3,144.7	\$11.71	2,926.8	\$34.77	
2018/2019	FIRST	Base	3,666.5	\$104.52	153.8	\$41.56	



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PJM Buy Bid History

/			PJM	PJM Buy Bid		d in Auction
				Weighted		Weighted
Delivery Year	Auction	Product Type	MW	Average Price	MW	Average Price
2012/2013	FIRST	Annual	409.6	\$176.86	409.6	\$16.46
2012/2013	THIRD	Annual	11.6	\$226.89	11.6	\$2.51
2013/2014	THIRD	Annual	140.6	\$243.73	140.6	\$127.59
2014/2015	FIRST	Summer Extended	97.0	\$410.95	92.4	\$410.95
2014/2015	SECOND	Limited	143.0	\$226.61	68.4	\$56.94
2014/2015	THIRD	Limited	1,755.6	\$164.58	1,499.2	\$46.46
2015/2016	FIRST	Limited	60.1	\$219.99	60.1	\$111.00
2015/2016	SECOND	Limited	736.2	\$90.18	49.1	\$141.12
2015/2016	THIRD	Limited	2.0	\$135.37	2.0	\$122.56
2016/2017	FIRST	Limited	206.4	\$190.19	204.8	\$110.56
2016/2017	SECOND	Limited	14.0	\$220.85	14.0	\$212.53
2016/2017	THIRD	Limited	135.1	\$160.60	135.1	\$70.37
2017/2018	FIRST	Limited	130.6	\$167.33	130.6	\$99.70



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