

SECTION 8 – FINANCIAL TRANSMISSION AND AUCTION REVENUE RIGHTS

Financial Transmission Rights (FTRs) and Auction Revenue Rights (ARRs) give transmission service customers and PJM members an offset against congestion costs in the Day-Ahead Energy Market. An FTR provides the holder with revenues, or charges, equal to the difference in congestion prices in the Day-Ahead Energy Market across the specific FTR transmission path. An ARR is a related product that provides the holder with revenues, or charges, based on the price differences across the specific ARR transmission path that result from the Annual FTR Auction. FTRs and ARRs provide a hedge against congestion costs, but neither FTRs nor ARRs provide a guarantee that transmission service customers will not pay congestion charges. ARR and FTR holders do not need to physically deliver energy to receive ARR or FTR credits and neither instrument represents a right to the physical delivery of energy.

In PJM, FTRs have been available to network service and long-term, firm, point-to-point transmission service customers as a hedge against congestion costs since the inception of locational marginal pricing (LMP) on April 1, 1998. Effective June 1, 2003, PJM replaced the allocation of FTRs with an allocation of ARRs and an associated Annual FTR Auction.¹ Since the introduction of this auction, FTRs have been available to all transmission service customers and PJM members. Network service and firm point-to-point transmission service customers can take allocated ARRs or the underlying FTRs through a self scheduling process. On June 1, 2007, PJM implemented marginal losses in the calculation of LMP. Since then, FTRs have been valued based on the difference in congestion prices rather than the difference in LMPs.

Firm transmission service customers have access to ARRs/FTRs because they pay the costs of the transmission system that enables firm energy delivery. Firm transmission service customers receive requested ARRs/FTRs to the extent that they are consistent both with the physical capability of the transmission system and with ARR/FTR requests of other eligible customers.

The *2009 Quarterly State of the Market Report for PJM: January through June* focuses on the annual ARR allocations, the Annual FTR Auctions and the Monthly Balance of Planning Period FTR Auctions during two FTR/ARR planning periods: the 2008 to 2009 planning period which covers June 1, 2008, through May 31, 2009, and the 2009 to 2010 planning period which covers June 1, 2009, through May 31, 2010.

¹ 87 FERC ¶ 61,054 (1999).

Overview

Financial Transmission Rights

Market Structure

- Supply.** PJM operates an Annual FTR Auction for all control zones in the PJM footprint. PJM conducts Monthly Balance of Planning Period FTR Auctions for the remaining months of the planning period, to allow participants to buy and sell any residual transmission capability. PJM also runs a Long Term FTR Auction for the three consecutive planning years immediately following the planning year during which the Long Term FTR Auction is conducted. The first Long Term FTR Auction was conducted during the 2008 to 2009 planning period and covers three consecutive planning periods between 2009 and 2012. The second Long Term FTR Auction is being operated during the 2009 to 2010 planning period and covers three consecutive planning periods between 2010 and 2013. The 2010 to 2013 Long Term FTR Auction results are not presented in this report because the second round has not yet been conducted. In addition, PJM administers a secondary bilateral market to allow participants to buy and sell existing FTRs. FTR products include FTR obligations and FTR options. FTR options are not available in the Long Term FTR Auction. For each time period, there are three FTR products: 24-hour, on peak and off peak. FTRs have terms varying from one month to three years. FTR supply is limited by the capability of the transmission system to accommodate simultaneously the set of requested FTRs and the numerous combinations of FTRs. The principal binding constraints limiting the supply of FTRs in the Annual FTR Auction for the 2009 to 2010 planning period include the AP South Interface and the Mahans Lane — Tidd line.² Market participants can also sell FTRs. In the Annual FTR Auction for the 2009 to 2010 planning period, total FTR sell offers were 142,154 MW, up from 83,453 MW during the 2008 to 2009 planning period. In the Monthly Balance of Planning Period FTR Auctions for the first month (June 2009) of the 2009 to 2010 planning period, there were 346,576 MW of FTR sell offers.

² During calendar years 2004 and 2005, PJM conducted the phased integration of five control zones. Four of these, American Electric Power (AEP), The Dayton Power & Light Company (DAY), Duquesne Light Company (DLCO) and Dominion, were eligible for direct allocation FTRs during the 2006 to 2007 planning period, but not the 2007 to 2008, the 2008 to 2009 or the 2009 to 2010 planning period. For additional information on the integrations, their timing and their impact on the footprint of the PJM service territory, see the *2008 State of the Market Report for PJM*, Volume II, Appendix A, "PJM Geography."

- **Demand.** There is no limit on FTR demand in any FTR auction. In the Annual FTR Auction for the 2009 to 2010 planning period, total FTR buy bids were 1,436,335 MW, down from 2,181,273 MW during the 2008 to 2009 planning period. Total FTR self scheduled bids were 68,589 MW for the 2009 to 2010 planning period, a decrease from 72,851 MW for the 2008 to 2009 planning period. In the Monthly Balance of Planning Period FTR Auctions for the first month (June 2009) of the 2009 to 2010 planning period, total FTR buy bids were 847,991 MW.
- **FTR Credit Issues.** While no participants defaulted in the first six months of 2009, one participant had losses on annual FTRs that extended into 2009. Six participants had FTR related payment obligations in default in 2008. Three of those participants had defaulted on their FTR related payment obligations in 2007. There were four participants who defaulted in 2007, after accounting for collateral. The magnitude of the defaults was the result of both the size of the FTR positions defaulted and of the PJM credit policies, which did not require sufficient collateral to cover the participants' losses. The 2007 defaults made it clear that PJM credit policies related to FTRs and particularly to counter flow FTRs were inadequate. PJM made multiple filings in 2008 and 2009 to reform its credit policies, focusing particularly on ensuring an appropriate level of credit to cover positions acquired by market participants in counter flow FTRs. The defaults also raised potential market gaming issues, which were addressed, in part, in a PJM filing.³ On April 3, 2009, the FERC conditionally approved the second in a series of filings by PJM aimed at reform of its credit policies.⁴ Effective June 1, 2009, PJM performs weekly rather than monthly billing and payment for the great majority of invoice line items; has reduced the Unsecured Credit Allowance by two-thirds, eliminated the Unsecured Credit Allowance in support of trading in FTRs, and has procedures that allow it to close out and liquidate forward FTR positions held by Market Participants who have defaulted on their obligations.
- **Patterns of Ownership.** The ownership concentration of cleared FTR buy bids resulting from the 2009 to 2010 Annual FTR Auction was low to moderate for FTR obligations and high for FTR options. The level of concentration is only descriptive and is not a measure of the competitiveness of FTR market structure as the ownership positions resulted from a competitive auction. In order to evaluate the ownership of prevailing flow and counter flow FTRs, the Market Monitoring Unit (MMU) categorized all participants owning FTRs in PJM as either physical or financial. Physical entities include utilities and customers which primarily take physical positions in PJM markets. Financial entities include banks and hedge funds which primarily take financial positions in PJM markets. During the 2009 to 2010 planning period, physical entities own two thirds of prevailing flow Annual FTRs while financial entities own more than half of counter flow Annual FTRs. Overall, financial entities own about 38 percent of all Annual FTRs. Financial entities own about 70 percent of prevailing flow and 78 percent of counter flow Monthly Balance of Planning Period FTRs from January 2009 through June 2009. Overall, financial entities own about 74 percent of all Monthly Balance of Planning Period FTRs.

Market Performance

- **Volume.** For the 2009 to 2010 planning period, the Annual FTR Auction cleared 155,612 MW (10.8 percent) of FTR buy bids, down from 204,349 MW (9.4 percent of demand) for the 2008 to 2009 planning period. The Annual FTR Auction also cleared 7,399 MW (5.2 percent) of FTR sell offers for the 2009 to 2010 planning period, up from 4,534 MW (5.4 percent) for the 2008 to 2009 planning period. For the first month of the 2009 to 2010 planning period, the Monthly Balance of Planning Period FTR Auctions cleared 75,503 MW (8.9 percent) of FTR buy bids and 36,081 MW (10.4 percent) of FTR sell offers.

³ PJM Interconnection, L.L.C. made a filing under section 205 of the Federal Power Act to amend section 15.2 of the PJM Operating Agreement concerning defaults on short FTR portfolios in Docket No. ER08-455-000, (January 18, 2008).

⁴ 127 FERC ¶61,017. The FERC has approved PJM's proposed revisions to its credit policy in Docket No. ER08-376-000. 122 FERC ¶61,279 (2008). PJM has notified the Commission of its intent to file in 2009 an additional proposal that will provide "clarification and definition of the commercial and legal relationship of PJM to its market participants in context of both pool and non-pool transactions. 127 FERC ¶61,017 at P 3.

- Price.** For the 2009 to 2010 planning period, 83.2 percent of the Annual FTRs were purchased for less than \$1 per MWh and 90.6 percent for less than \$2 per MWh. For the 2009 to 2010 planning period, the weighted-average prices paid for annual buy-bid FTR obligations were \$0.66 per MWh for 24-hour FTRs, \$0.57 per MWh for on peak FTRs and \$0.40 per MWh for off peak FTRs. Comparable, weighted-average prices paid for annual buy-bid FTR obligations for the 2008 to 2009 planning period were \$1.96 per MWh for 24-hour FTRs and \$0.55 per MWh for on peak FTRs and \$0.26 per MWh for off peak FTRs. The weighted-average prices paid for 2009 to 2010 planning period annual buy-bid FTR obligations and options were \$0.53 per MWh and \$0.35 per MWh, respectively, compared to \$0.69 per MWh and \$0.24 per MWh, respectively, in the 2008 to 2009 planning period.⁵ The weighted-average price paid for buy-bid FTRs in the Monthly Balance of Planning Period FTR Auctions for the first month of the 2009 to 2010 planning period was \$0.38 per MWh, compared with \$0.30 per MWh in the Monthly Balance of Planning Period FTR Auctions for the full 12-month 2008 to 2009 planning period.
- Revenue.** The Annual FTR Auction generated \$1,329.8 million of net revenue for all FTRs during the 2009 to 2010 planning period, down from \$2,422.6 million for the 2008 to 2009 planning period. The Monthly Balance of Planning Period FTR Auctions generated \$2.9 million in net revenue for all FTRs during the first month of the 2009 to 2010 planning period.
- Revenue Adequacy.** FTRs were 100 percent revenue adequate for the 2008 to 2009 planning period. FTRs were paid at 100 percent of the target allocation level for the first month of the 2009 to 2010 planning period. Congestion revenues are allocated to FTR holders based on FTR target allocations. PJM collected \$54.6 million of FTR revenues during the first month of the 2009 to 2010 planning period and \$1,748.3 million during the 2008 to 2009 planning period. For the full twelve months of the 2008 to 2009 planning period, the top sink and top source with the highest positive FTR target allocations were the AP Control Zone and the Northern Illinois Hub, respectively. Similarly, the top sink and top source with the largest negative FTR target allocations were the Western Hub and the Pepco Control Zone, respectively.

Auction Revenue Rights

Market Structure

- Supply.** ARR supply is limited by the capability of the transmission system to simultaneously accommodate the set of requested ARRs and the numerous combinations of feasible ARRs. The principal binding constraints that limited supply in the annual ARR allocation for the 2009 to 2010 planning period were the AP South Interface and the Electric Junction — Frontenac line. A new ARR product was added for the 2007 to 2008 planning period. Long Term ARRs are in effect for 10 consecutive planning periods and are available in Stage 1A of the annual ARR allocation. Residual ARRs were also introduced and are available to holders with prorated Stage 1A or 1B ARRs if additional transmission capability is added during the planning period.
- Demand.** Total demand in the annual ARR allocation was 140,037 MW for the 2009 to 2010 planning period with 64,987 MW bid in Stage 1A, 26,517 MW bid in Stage 1B and 48,533 MW bid in Stage 2. This is down from 140,668 MW for the 2008 to 2009 planning period with 64,546 MW bid in Stage 1A, 27,291 MW bid in Stage 1B and 48,831 MW bid in Stage 2. ARR demand is limited by the total amount of network service and firm point-to-point transmission service.
- ARR Reassignment for Retail Load Switching.** When retail load switches among load-serving entities (LSEs), a proportional share of the ARRs and their associated revenue are reassigned from the LSE losing load to the LSE gaining load. ARR reassignment occurs only if the LSE losing load has ARRs with a net positive economic value. An LSE gaining load in the same control zone is allocated a proportional share of positively valued ARRs within the control zone based on the shifted load. There were 3,603 MW of ARRs associated with approximately \$66,200 per MW-day of revenue that were reassigned in the first month of the 2009 to 2010 planning period. There were 15,326 MW of ARRs associated with approximately \$533,900 per MW-day of revenue that were reassigned for the full 2008 to 2009 planning period.

⁵ Weighted-average prices for FTRs in the Long Term FTR Auction, Annual FTR Auction and Monthly Balance of Planning Period FTR Auctions are the average prices weighted by the MW and hours in a time period (planning period or month) for each FTR class type: 24-hour, on peak and off peak. For example, FTRs in the 2009 to 2010 Annual FTR Auction would be weighted by their MW and the hours in that time period for each FTR class type: 24-hour (8,760 hours), on peak (4,096 hours) and off peak (4,664 hours).

Market Performance

- Volume.** Of 140,037 MW in ARR requests for the 2009 to 2010 planning period, 109,413 MW (78.1 percent) were allocated. There were 64,913 MW allocated in Stage 1A, 26,514 MW allocated in Stage 1B and 17,986 MW allocated in Stage 2. Eligible market participants self scheduled 68,589 MW (62.7 percent) of these allocated ARRs as Annual FTRs. Of 140,668 MW in ARR requests for the 2008 to 2009 planning period, 112,011 MW (79.6 percent) were allocated. There were 64,520 MW allocated in Stage 1A, 26,685 MW allocated in Stage 1B and 20,806 MW allocated in Stage 2. Eligible market participants self scheduled 72,851 MW (65.0 percent) of these allocated ARRs as Annual FTRs.
- Revenue.** As ARRs are allocated to qualifying customers rather than sold, there is no ARR revenue comparable to the revenue that results from the FTR auctions.
- Revenue Adequacy.** During the 2009 to 2010 planning period, ARR holders will receive \$1,273.5 million in ARR credits, with an average hourly ARR credit of \$1.33 per MWh. During the 2009 to 2010 planning period, the ARR target allocations were \$1,273.5 million while PJM collected \$1,332.7 million from the combined Annual and Monthly Balance of Planning Period FTR Auctions through Jun 30, 2009, making ARRs revenue adequate. During the 2008 to 2009 planning period, ARR holders received \$2,361.3 million in ARR credits, with an average hourly ARR credit of \$2.41 per MWh. For the 2008 to 2009 planning period, the ARR target allocations were \$2,361.3 million while PJM collected \$2,489.6 million from the combined Annual and Monthly Balance of Planning Period FTR Auctions, making ARRs revenue adequate.
- ARR Proration.** When ARRs were allocated for the 2009 to 2010 planning period, some of the requested ARRs were prorated in Stage 2 as a result of binding transmission constraints. No ARRs were prorated in Stage 1A and Stage 1B since there were no constraints affecting the ARR allocation in these two stages. For the 2008 to 2009 planning period, no ARRs were prorated in Stage 1A of the annual ARR allocation. In Stage 1B, the only constraint affecting the ARR allocation was the Cedar Grove — Clifton line. There were 605.4 MW of Stage 1B ARRs denied to participants whose requested ARRs affected that binding transmission constraint.

- ARRs and FTRs as a Hedge against Congestion.** The effectiveness of ARRs and FTRs as a hedge against actual congestion can be measured several ways. The first is to compare the revenue received by ARR holders to the congestion costs experienced by these ARR holders. The second is to compare the revenue received by FTR holders to the total congestion costs within PJM. The final and comprehensive method is to compare the revenue received by all ARR and FTR holders to total actual congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM. During the 2007 to 2008 planning period, total ARR and FTR revenues hedged 97.4 percent of the congestion costs within PJM. For the 2008 to 2009 planning period, all ARRs and FTRs hedged more than 100 percent of the congestion costs within PJM.

Conclusion

The annual ARR allocation and the FTR auctions provide market participants with hedging instruments. These instruments can be used for hedging positions or for speculation. The Long Term FTR Auction, the Annual FTR Auction and the Monthly Balance of Planning Period FTR Auctions provide a market valuation of FTRs. The FTR auction results for the 2009 to 2010 planning period were competitive and succeeded in providing all qualified market participants with equal access to FTRs. The MMU recommends that the rules for ARR reassignment when load shifts should address the fact that in the case of ARRs self scheduled as FTRs, the underlying FTRs do not follow the load while the ARRs do.

ARRs were 100 percent revenue adequate for both the 2008 to 2009 and the 2009 to 2010 planning periods. FTRs were paid at 100 percent of the target allocation level for the 12-month period of the 2008 to 2009 planning period, and at 100 percent of the target allocation level for the first month of the 2009 to 2010 planning period.

The total of ARR and FTR revenues hedged 97.4 percent of the congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM for the 2007 to 2008 planning period and more than 100 percent of the congestion costs in PJM during the 2008 to 2009 planning period. The ARR and FTR revenue adequacy results are aggregate results and all those paying congestion charges were not necessarily hedged at that level. Aggregate numbers do not reveal the underlying distribution of FTR holders, their revenues or those paying congestion.

Revenue adequacy must be distinguished from the adequacy of FTRs as a hedge against congestion. Revenue adequacy is a narrower concept that compares the revenues available to cover congestion across specific paths for which FTRs were available and purchased. The adequacy of FTRs as a hedge against congestion compares FTR revenues to total congestion on the system as a measure of the extent to which FTRs hedged market participants against actual, total congestion across all paths, regardless of the availability or purchase of FTRs.

PJM faced substantial participant defaults in 2007 and 2008 as a result of participant counter flow positions in the FTR markets and inadequate participant financial resources. The magnitude of the defaults was the result of both the size of the FTR positions defaulted and of the PJM credit policies, which did not require sufficient collateral to cover the participants' losses. PJM also faced additional defaults in 2008 and 2009, although the 2009 default amounts were the result of defaults on annual FTR positions that defaulted in 2008. PJM has taken significant steps to address the credit issue. The defaults also raised potential market gaming issues, which were addressed, in part, in a PJM filing. These continue to be investigated.

Financial Transmission Rights

Supply

Table 8-1 Top 10 principal binding transmission constraints limiting the Annual FTR Auction: Planning period 2009 to 2010 (See 2008 SOM Table 8-2)

Constraint	Type	Control Zone	Severity Ranking by Auction Round			
			1	2	3	4
AP South	Interface	AP	1	1	1	1
Mahans Lane - Tidd	Line	AEP	2	3	2	2
Albright - Mt. Zion	Line	AP	36	2	7	13
Kingwood - Pruntytown	Line	AP	22	4	3	5
Mount Storm - Pruntytown	Line	AP	3	6	4	4
Pana North	Flowgate	External	8	5	6	3
Mt. Jackson - Edinburg	Line	Dominion	4	7	9	6
Monroe - Shieldalloy	Line	AECO	5	10	8	7
Tiltsville - Windsor	Line	AP	9	9	5	8
Keisters - Campbell OE	Flowgate	External	10	8	45	166

Patterns of Ownership

Table 8-2 Annual FTR Auction patterns of ownership by FTR direction: Planning period 2009 to 2010 (See 2008 SOM Table 8-4)

Organization Type	FTR Direction		
	Prevailing Flow	Counter Flow	All
Physical	66.9%	44.1%	61.6%
Financial	33.1%	55.9%	38.4%
Total	100.0%	100.0%	100.0%

Table 8-3 Monthly Balance of Planning Period FTR Auction patterns of ownership by FTR direction: January through June 2009 (See 2008 SOM Table 8-5)

Organization Type	FTR Direction		
	Prevailing Flow	Counter Flow	All
Physical	29.7%	21.9%	26.4%
Financial	70.3%	78.1%	73.6%
Total	100.0%	100.0%	100.0%

Market Performance

Volume

Table 8-4 Annual FTR Auction market volume: Planning period 2009 to 2010 (See 2008 SOM Table 8-7)

Trade Type	Hedge Type	FTR Direction	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
Buy bids	Obligations	Counter Flow	80,464	304,889	45,356	14.9%	259,533	85.1%
		Prevailing Flow	179,814	986,613	84,161	8.5%	902,452	91.5%
		Total	260,278	1,291,502	129,517	10.0%	1,161,984	90.0%
	Options	Counter Flow	26	2,861	2,661	93.0%	200	7.0%
		Prevailing Flow	6,242	141,972	23,433	16.5%	118,538	83.5%
		Total	6,268	144,833	26,095	18.0%	118,738	82.0%
	Total	Counter Flow	80,490	307,750	48,017	15.6%	259,733	84.4%
		Prevailing Flow	186,056	1,128,585	107,595	9.5%	1,020,990	90.5%
		Total	266,546	1,436,335	155,612	10.8%	1,280,723	89.2%
Self-scheduled bids	Obligations	Counter Flow	620	3,175	3,175	100.0%	0	0.0%
		Prevailing Flow	8,796	65,414	65,414	100.0%	0	0.0%
		Total	9,416	68,589	68,589	100.0%	0	0.0%
Buy and self-scheduled bids	Obligations	Counter Flow	81,084	308,064	48,531	15.8%	259,533	84.2%
		Prevailing Flow	188,610	1,052,027	149,576	14.2%	902,452	85.8%
		Total	269,694	1,360,091	198,107	14.6%	1,161,985	85.4%
	Options	Counter Flow	26	2,861	2,661	93.0%	200	7.0%
		Prevailing Flow	6,242	141,972	23,433	16.5%	118,538	83.5%
		Total	6,268	144,833	26,095	18.0%	118,738	82.0%
	Total	Counter Flow	81,110	310,925	51,192	16.5%	259,733	83.5%
		Prevailing Flow	194,852	1,193,999	173,009	14.5%	1,020,990	85.5%
		Total	275,962	1,504,924	224,201	14.9%	1,280,723	85.1%
Sell offers	Obligations	Counter Flow	13,789	42,950	2,390	5.6%	40,560	94.4%
		Prevailing Flow	21,608	83,797	4,869	5.8%	78,929	94.2%
		Total	35,397	126,747	7,259	5.7%	119,489	94.3%
	Options	Counter Flow	19	1,822	0	0.0%	1,822	100.0%
		Prevailing Flow	940	13,584	140	1.0%	13,444	99.0%
		Total	959	15,406	140	0.9%	15,266	99.1%
	Total	Counter Flow	13,808	44,772	2,390	5.3%	42,383	94.7%
		Prevailing Flow	22,548	97,381	5,009	5.1%	92,372	94.9%
		Total	36,356	142,154	7,399	5.2%	134,755	94.8%

Table 8-5 Comparison of self scheduled FTRs: Planning periods 2008 to 2009 and 2009 to 2010 (See 2008 SOM Table 8-8)

Planning Period	Self-Scheduled FTRs (MW)	Maximum Possible Self-Scheduled FTRs (MW)	Percent of ARR's Self-Scheduled as FTRs
2008/2009	72,851	112,011	65.0%
2009/2010	68,589	109,413	62.7%

Table 8-6 Monthly Balance of Planning Period FTR Auction market volume: January through June 2009 (See 2008 SOM Table 8-9)

Monthly Auction	Hedge Type	Trade Type	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
Jan-09	Obligations	Buy bids	166,943	648,482	59,472	9.2%	589,011	90.8%
		Sell offers	36,552	172,413	17,489	10.1%	154,924	89.9%
	Options	Buy bids	473	25,043	3,628	14.5%	21,415	85.5%
		Sell offers	475	13,010	1,871	14.4%	11,139	85.6%
Feb-09	Obligations	Buy bids	167,297	613,252	54,064	8.8%	559,188	91.2%
		Sell offers	33,278	135,132	13,663	10.1%	121,469	89.9%
	Options	Buy bids	1,000	26,021	1,408	5.4%	24,613	94.6%
		Sell offers	399	11,925	1,370	11.5%	10,555	88.5%
Mar-09	Obligations	Buy bids	153,613	542,094	54,409	10.0%	487,685	90.0%
		Sell offers	43,579	176,838	14,931	8.4%	161,907	91.6%
	Options	Buy bids	738	38,982	4,626	11.9%	34,356	88.1%
		Sell offers	472	12,300	1,382	11.2%	10,918	88.8%
Apr-09	Obligations	Buy bids	121,034	417,636	49,603	11.9%	368,034	88.1%
		Sell offers	31,574	131,945	12,924	9.8%	119,021	90.2%
	Options	Buy bids	204	22,992	614	2.7%	22,379	97.3%
		Sell offers	353	8,776	1,607	18.3%	7,168	81.7%
May-09	Obligations	Buy bids	79,272	285,448	31,020	10.9%	254,428	89.1%
		Sell offers	19,030	70,521	8,843	12.5%	61,678	87.5%
	Options	Buy bids	131	9,750	183	1.9%	9,567	98.1%
		Sell offers	195	2,585	1,345	52.0%	1,240	48.0%
Jun-09	Obligations	Buy bids	202,097	807,023	72,951	9.0%	734,073	91.0%
		Sell offers	79,699	276,795	24,514	8.9%	252,281	91.1%
	Options	Buy bids	734	40,968	2,552	6.2%	38,416	93.8%
		Sell offers	5,377	69,781	11,567	16.6%	58,214	83.4%
2008/2009*	Obligations	Buy bids	2,143,034	9,449,644	782,007	8.3%	8,667,637	91.7%
		Sell offers	504,152	1,991,496	226,544	11.4%	1,764,952	88.6%
	Options	Buy bids	11,754	773,793	22,209	2.9%	751,584	97.1%
		Sell offers	6,550	180,904	32,203	17.8%	148,701	82.2%
2009/2010*	Obligations	Buy bids	202,097	807,023	72,951	9.0%	734,073	91.0%
		Sell offers	79,699	276,795	24,514	8.9%	252,281	91.1%
	Options	Buy bids	734	40,968	2,552	6.2%	38,416	93.8%
		Sell offers	5,377	69,781	11,567	16.6%	58,214	83.4%

* Shows twelve months for 2008/2009 and one month ended 30-Jun-2009 for 2009/2010

Table 8-7 Monthly Balance of Planning Period FTR Auction buy-bid bid and cleared volume (MW per period): January through June 2009 (See 2008 SOM Table 8-10)

Monthly Auction	MW Type	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-09	Bid	299,268	129,139	99,968				145,151	673,525
	Cleared	41,932	9,425	3,985				7,758	63,100
Feb-09	Bid	311,274	106,999	93,220				127,781	639,274
	Cleared	37,183	6,216	5,347				6,727	55,472
Mar-09	Bid	305,146	120,085	115,103				40,741	581,075
	Cleared	41,859	8,073	6,687				2,415	59,034
Apr-09	Bid	306,763	133,866						440,629
	Cleared	41,884	8,332						50,216
May-09	Bid	295,198							295,198
	Cleared	31,204							31,204
Jun-09	Bid	283,451	121,774	119,403	24,320	104,418	102,266	92,358	847,992
	Cleared	33,822	9,100	8,599	2,500	7,967	7,524	5,991	75,503

Table 8-8 Secondary bilateral FTR market volume: Planning periods 2008 to 2009 and 2009 to 2010⁶ (See 2008 SOM Table 8-11)

Planning Period	Hedge Type	Class Type	Secondary (MW)
2008/2009	Obligation	24-Hour	800
		On Peak	1,133
		Off Peak	9
		Total	1,942
	Option	24-Hour	0
		On Peak	6
Off Peak		0	
	Total	6	
2009/2010*	Obligation	24-Hour	1,438
		On Peak	0
		Off Peak	0
		Total	1,438

* Shows one month ended 30-Jun-2009

⁶ The 2009 to 2010 planning period covers the 2009 to 2010 Annual FTR Auction and the Monthly Balance of Planning Period FTR Auctions through June 30, 2009.

Price**Table 8-9 Annual FTR Auction weighted-average cleared prices by FTR direction (Dollars per MWh): Planning period 2009 to 2010 (See 2008 SOM Table 8-13)**

Trade Type	Hedge Type	FTR Direction	Class Type				
			24-Hour	On Peak	Off Peak	All	
Buy bids	Obligations	Counter Flow	(\$0.75)	(\$0.56)	(\$0.49)	(\$0.58)	
		Prevailing Flow	\$1.35	\$1.13	\$0.95	\$1.13	
		Total	\$0.66	\$0.57	\$0.40	\$0.53	
	Options	Counter Flow	\$0.00	\$0.00	\$0.00	\$0.00	
		Prevailing Flow	\$0.53	\$0.50	\$0.32	\$0.41	
		Total	\$0.18	\$0.46	\$0.30	\$0.35	
Self-scheduled bids	Obligations	Counter Flow	(\$0.32)	NA	NA	(\$0.32)	
		Prevailing Flow	\$1.67	NA	NA	\$1.67	
		Total	\$1.58	NA	NA	\$1.58	
Buy and self-scheduled bids	Obligations	Counter Flow	(\$0.61)	(\$0.56)	(\$0.49)	(\$0.55)	
		Prevailing Flow	\$1.62	\$1.13	\$0.95	\$1.44	
		Total	\$1.37	\$0.57	\$0.40	\$1.03	
	Options	Counter Flow	\$0.00	\$0.00	\$0.00	\$0.00	
		Prevailing Flow	\$0.53	\$0.50	\$0.32	\$0.41	
		Total	\$0.18	\$0.46	\$0.30	\$0.35	
	Sell offers	Obligations	Counter Flow	(\$1.76)	(\$0.24)	(\$0.37)	(\$0.42)
			Prevailing Flow	\$0.49	\$0.80	\$0.37	\$0.63
			Total	(\$0.28)	\$0.52	\$0.06	\$0.28
Options		Counter Flow	NA	NA	NA	NA	
		Prevailing Flow	\$0.04	\$0.03	\$0.26	\$0.11	
		Total	\$0.04	\$0.03	\$0.26	\$0.11	

Figure 8-1 Annual FTR auction clearing price duration curves: Planning period 2009 to 2010 (See 2008 SOM Figure 8-2)

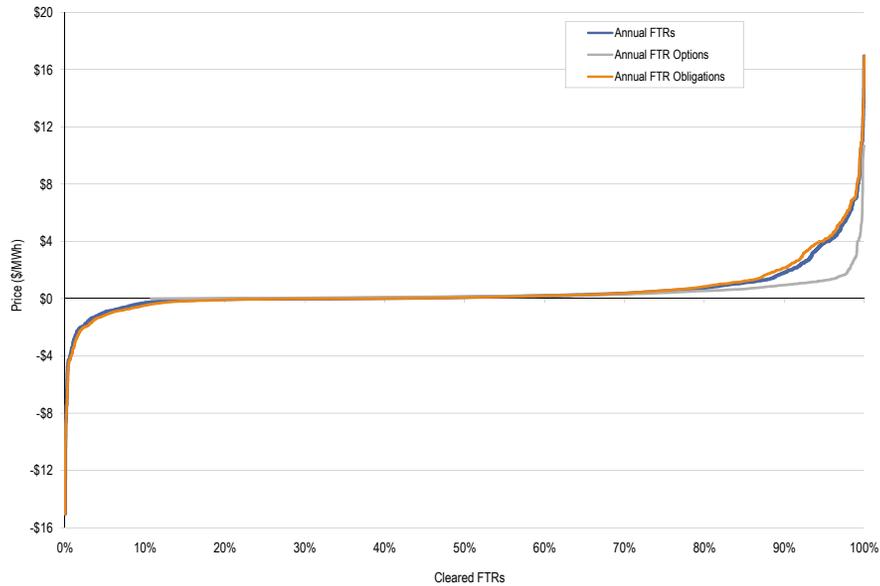


Table 8-10 Monthly Balance of Planning Period FTR Auction cleared, weighted-average, buy-bid price per period (Dollars per MWh): January through June 2009 (See 2008 SOM Table 8-14)

Monthly Auction	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-09	\$0.08	\$0.18	\$0.24				\$0.04	\$0.09
Feb-09	\$0.10	\$0.28	\$0.21				\$0.21	\$0.16
Mar-09	\$0.11	\$0.25	\$0.20				\$0.55	\$0.18
Apr-09	\$0.12	\$0.27						\$0.15
May-09	\$0.10							\$0.10
Jun-09	\$0.17	\$0.25	\$0.17	\$1.16	\$0.37	\$0.48	\$0.46	\$0.38

Revenue**Annual FTR Auction Revenue****Table 8-11 Annual FTR Auction revenue by FTR direction: Planning period 2009 to 2010 (See 2008 SOM Table 8-16)**

Trade Type	Hedge Type	FTR Direction	Class Type			
			24-Hour	On Peak	Off Peak	All
Buy bids	Obligations	Counter Flow	(\$43,363,985)	(\$44,760,870)	(\$43,432,206)	(\$131,557,061)
		Prevailing Flow	\$158,105,703	\$185,216,383	\$136,397,384	\$479,719,470
		Total	\$114,741,718	\$140,455,513	\$92,965,178	\$348,162,410
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$2,457,455	\$22,913,596	\$17,326,182	\$42,697,232
		Total	\$2,457,455	\$22,913,596	\$17,326,182	\$42,697,232
	Total	Counter Flow	(\$43,363,985)	(\$44,760,870)	(\$43,432,206)	(\$131,557,061)
		Prevailing Flow	\$160,563,158	\$208,129,979	\$153,723,566	\$522,416,703
		Total	\$117,199,173	\$163,369,109	\$110,291,360	\$390,859,642
Self-scheduled bids	Obligations	Counter Flow	(\$8,772,739)	NA	NA	(\$8,772,739)
		Prevailing Flow	\$956,797,012	NA	NA	\$956,797,012
		Total	\$948,024,273	NA	NA	\$948,024,273
Buy and self-scheduled bids	Obligations	Counter Flow	(\$52,136,724)	(\$44,760,870)	(\$43,432,206)	(\$140,329,799)
		Prevailing Flow	\$1,114,902,715	\$185,216,383	\$136,397,384	\$1,436,516,482
		Total	\$1,062,765,992	\$140,455,513	\$92,965,178	\$1,296,186,683
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$2,457,455	\$22,913,596	\$17,326,182	\$42,697,232
		Total	\$2,457,455	\$22,913,596	\$17,326,182	\$42,697,232
	Total	Counter Flow	(\$52,136,724)	(\$44,760,870)	(\$43,432,206)	(\$140,329,799)
		Prevailing Flow	\$1,117,360,170	\$208,129,979	\$153,723,566	\$1,479,213,715
		Total	\$1,065,223,446	\$163,369,109	\$110,291,360	\$1,338,883,915
Sell offers	Obligations	Counter Flow	(\$1,385,244)	(\$1,089,452)	(\$2,094,504)	(\$4,569,201)
		Prevailing Flow	\$736,568	\$9,964,413	\$2,864,123	\$13,565,105
		Total	(\$648,676)	\$8,874,961	\$769,619	\$8,995,904
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$15,598	\$5,268	\$68,488	\$89,353
		Total	\$15,598	\$5,268	\$68,488	\$89,353
	Total	Counter Flow	(\$1,385,244)	(\$1,089,452)	(\$2,094,504)	(\$4,569,201)
		Prevailing Flow	\$752,166	\$9,969,681	\$2,932,611	\$13,654,458
		Total	(\$633,078)	\$8,880,229	\$838,107	\$9,085,257

Figure 8-2 Ten largest positive and negative revenue producing FTR sinks purchased in the Annual FTR Auction: Planning period 2009 to 2010⁷ (See 2008 SOM Figure 8-5)

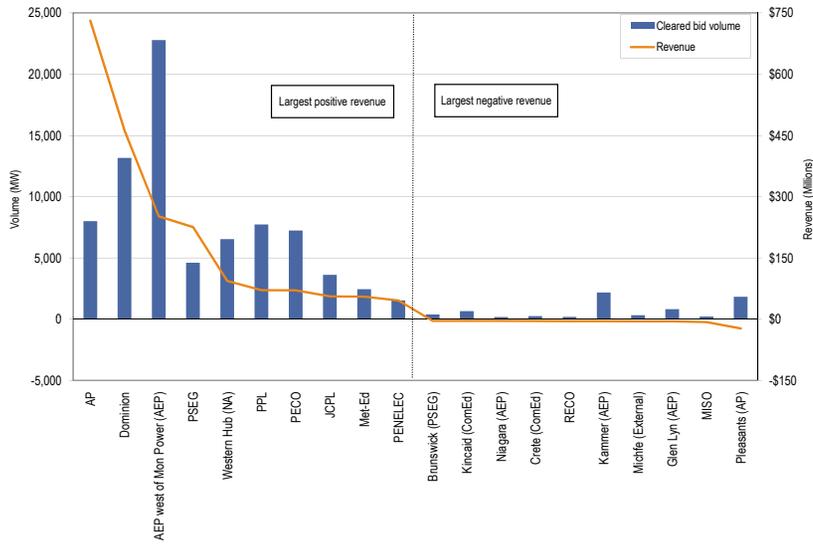
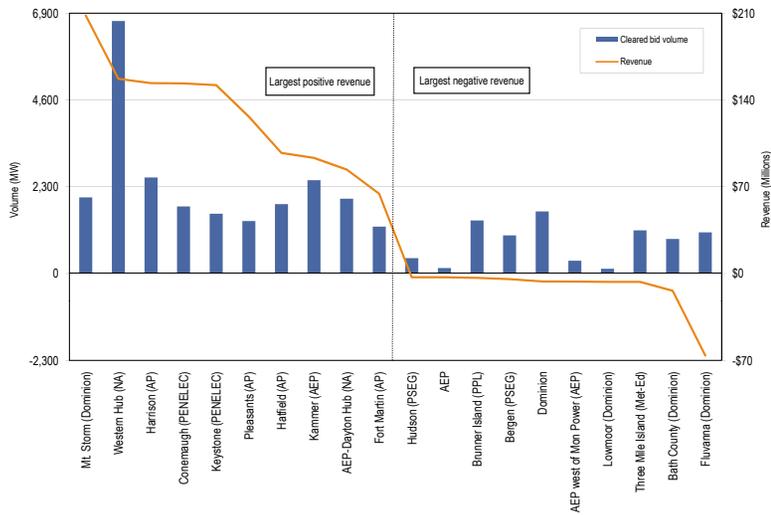


Figure 8-3 Ten largest positive and negative revenue producing FTR sources purchased in the Annual FTR Auction: Planning period 2009 to 2010 (See 2008 SOM Figure 8-6)



7 For Figure 8-2 through Figure 8-7, each FTR sink and source that is not a control zone has its corresponding control zone listed in parentheses after its name. Most FTR sink and source control zone identifications for hubs and interface pricing points are listed as NA because they cannot be assigned to a specific control zone.

Monthly Balance of Planning Period FTR Auction Revenue

Figure 8-4 Ten largest positive and negative revenue producing FTR sinks purchased in the Monthly Balance of Planning Period FTR Auctions: Planning period 2008 to 2009 through May 31, 2009 (See 2008 SOM Figure 8-7)

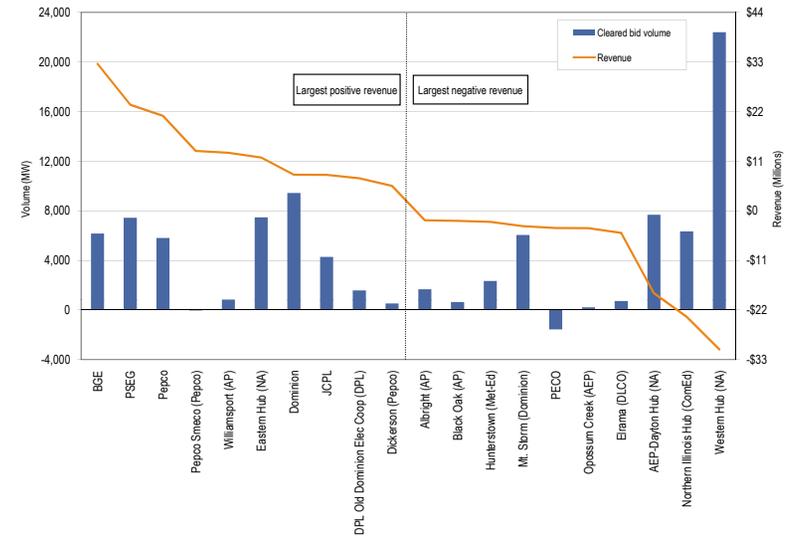


Figure 8-5 Ten largest positive and negative revenue producing FTR sources purchased in the Monthly Balance of Planning Period FTR Auctions: Planning period 2008 to 2009 through May 31, 2009 (See 2008 SOM Figure 8-8)

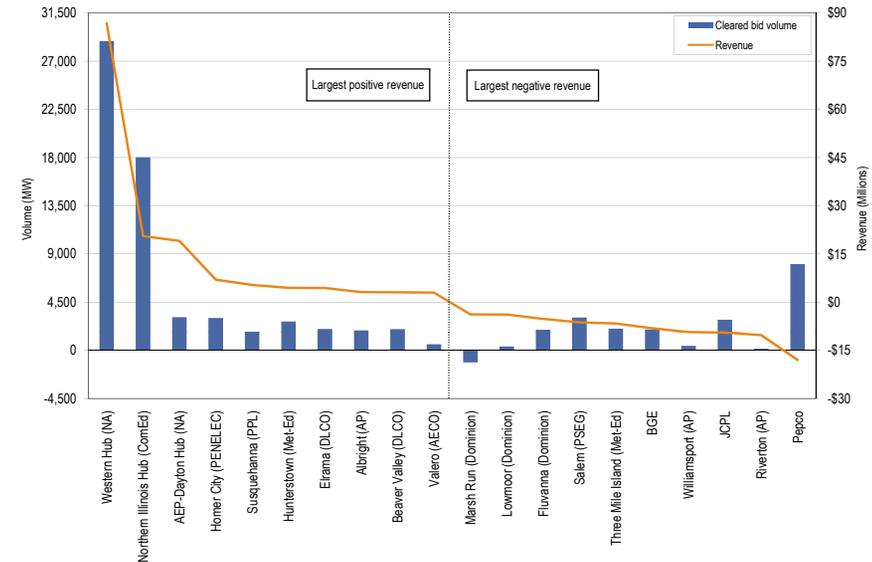


Table 8-12 Monthly Balance of Planning Period FTR Auction revenue: January through June 2009 (See 2008 SOM Table 8-17)

Monthly Auction	Hedge Type	Trade Type	Class Type			
			24-Hour	On Peak	Off Peak	All
Jan-09	Obligations	Buy bids	\$1,207,292	\$934,011	\$244,584	\$2,385,888
		Sell offers	\$248,591	\$573,963	\$77,911	\$900,466
	Options	Buy bids	\$26,505	\$140,359	\$145,245	\$312,108
		Sell offers	\$0	\$203,453	\$129,447	\$332,900
Feb-09	Obligations	Buy bids	(\$83,145)	\$2,193,269	\$1,332,926	\$3,443,050
		Sell offers	\$413,446	\$1,442,454	\$530,041	\$2,385,941
	Options	Buy bids	\$31,233	\$278,934	\$178,062	\$488,229
		Sell offers	\$0	\$193,821	\$118,916	\$312,737
Mar-09	Obligations	Buy bids	\$395,276	\$2,107,188	\$1,467,981	\$3,970,446
		Sell offers	\$308,687	\$1,724,949	\$1,167,153	\$3,200,789
	Options	Buy bids	\$34,097	\$435,416	\$54,453	\$523,967
		Sell offers	\$0	\$181,733	\$52,487	\$234,221
Apr-09	Obligations	Buy bids	(\$223,411)	\$1,471,041	\$1,062,859	\$2,310,489
		Sell offers	\$19,324	\$954,279	\$602,223	\$1,575,826
	Options	Buy bids	\$1,511	\$291,731	\$15,883	\$309,126
		Sell offers	\$0	\$260,520	\$67,733	\$328,253
May-09	Obligations	Buy bids	(\$234,075)	\$902,305	\$371,453	\$1,039,683
		Sell offers	(\$12,927)	\$429,537	\$118,031	\$534,641
	Options	Buy bids	\$0	\$10,099	\$8,754	\$18,854
		Sell offers	\$1,336	\$115,521	\$48,174	\$165,031
Jun-09	Obligations	Buy bids	(\$455,827)	\$9,859,792	\$7,471,308	\$16,875,272
		Sell offers	\$940,697	\$4,742,041	\$3,783,072	\$9,465,811
	Options	Buy bids	\$0	\$454,961	\$67,016	\$521,977
		Sell offers	\$21,245	\$3,150,642	\$1,819,405	\$4,991,291
2008/2009*	Obligations	Buy bids	\$18,536,366	\$62,983,127	\$39,113,790	\$120,633,283
		Sell offers	\$10,238,514	\$20,746,786	\$12,003,977	\$42,989,277
	Options	Buy bids	\$164,213	\$5,175,296	\$2,995,811	\$8,335,320
		Sell offers	\$26,515	\$13,614,983	\$5,286,634	\$18,928,133
2009/2010*	Obligations	Buy bids	(\$455,827)	\$9,859,792	\$7,471,308	\$16,875,272
		Sell offers	\$940,697	\$4,742,041	\$3,783,072	\$9,465,811
	Options	Buy bids	\$0	\$454,961	\$67,016	\$521,977
		Sell offers	\$21,245	\$3,150,642	\$1,819,405	\$4,991,291

* Shows twelve months for 2008/2009 and one month ended 30-Jun-2009 for 2009/2010

Revenue Adequacy

Table 8-13 Total annual PJM FTR revenue detail (Dollars (Millions)): Planning periods 2008 to 2009 and 2009 to 2010 (See 2008 SOM Table 8-18)

Accounting Element	2008/2009	2009/2010*
ARR information		
ARR target allocations	\$2,361.3	\$104.8
FTR auction revenue	\$2,489.6	\$111.8
ARR excess	\$128.3	\$7.0
FTR targets		
FTR target allocations	\$1,747.9	\$44.0
Adjustments:		
Adjustments to FTR target allocations	(\$4.1)	\$0.0
Total FTR targets	\$1,743.8	\$44.0
FTR revenues		
ARR excess	\$128.3	\$7.0
Competing uses	\$0.7	\$0.0
Congestions		
Net Negative Congestion (enter as negative)	(\$59.0)	(\$1.0)
Hourly congestion revenue	\$1,735.7	\$50.6
Midwest ISO M2M (credit to PJM minus credit to Midwest ISO)	(\$52.3)	(\$1.9)
Consolidated Edison Company of New York and Public Service Electric and Gas Company Wheel (CEPSW) congestion credit to Con Edison (enter as negative)	(\$3.1)	(\$0.1)
Adjustments:		
Excess revenues carried forward into future months	\$36.8	\$0.0
Excess revenues distributed back to previous months	\$16.1	\$0.0
Other adjustments to FTR revenues	(\$2.0)	\$0.0
Total FTR revenues	\$1,801.2	\$54.6
Excess revenues distributed to other months	(\$30.0)	(\$10.7)
Excess revenues distributed to CEPSW for end-of-year distribution	\$0.5	\$0.0
Excess revenues distributed to FTR holders	\$4.0	\$0.0
Total FTR congestion credits	\$1,743.8	\$44.0
Total congestion credits on bill (includes CEPSW and end-of-year distribution)	\$1,751.4	\$44.0
Remaining deficiency	\$0.0	\$0.0

* Shows one month ended 30-Jun-09

Figure 8-6 Ten largest positive and negative FTR target allocations summed by sink: Planning period 2008 to 2009 through May 31, 2009 (See 2008 SOM Figure 8-9)

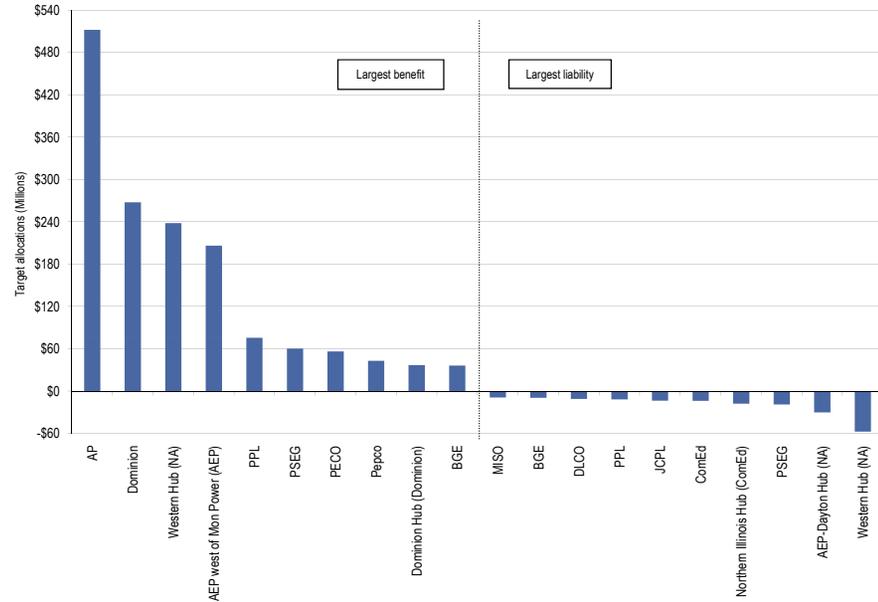


Figure 8-7 Ten largest positive and negative FTR target allocations summed by source: Planning period 2008 to 2009 through May 31, 2009 (See 2008 SOM Figure 8-10)

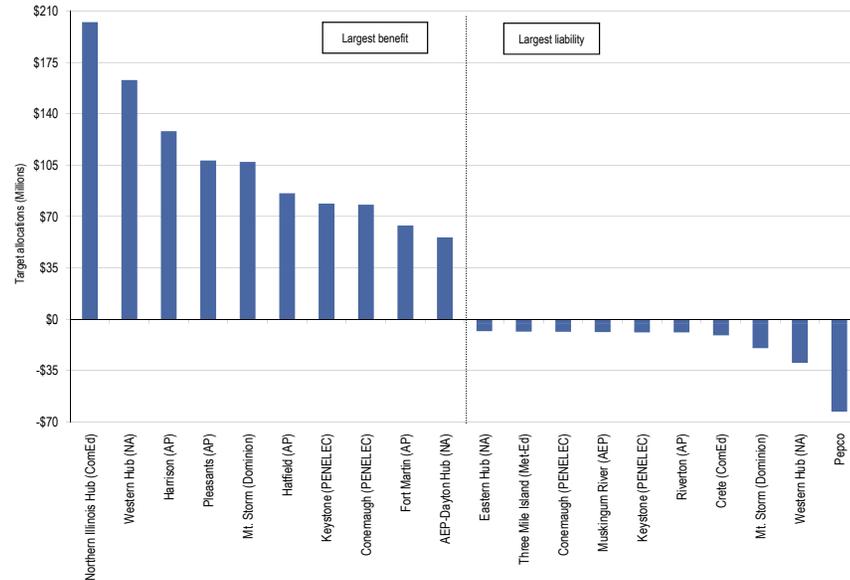


Table 8-14 Monthly FTR accounting summary (Dollars (Millions)): Planning periods 2008 to 2009 and 2009 to 2010 (See 2008 SOM Table 8-19)

Period	FTR Revenues	FTR Target Allocations	FTR Credits	FTR Payout Ratio	Credits Deficiency	Credits Excess
Jun-08	\$436.9	\$432.3	\$432.3	100%	\$0	\$4.7
Jul-08	\$371.4	\$364.2	\$364.2	100%	\$0	\$7.2
Aug-08	\$140.5	\$125.0	\$125.0	100%	\$0	\$15.4
Sep-08	\$154.6	\$154.6	\$154.6	100%	\$0	\$0.0
Oct-08	\$109.4	\$109.4	\$109.4	100%	\$0	\$0.0
Nov-08	\$97.2	\$97.2	\$97.2	100%	\$0	\$0.0
Dec-08	\$85.3	\$77.6	\$77.6	100%	\$0	\$7.7
Jan-09	\$159.5	\$151.1	\$151.1	100%	\$0	\$8.4
Feb-09	\$92.0	\$84.3	\$84.3	100%	\$0	\$7.7
Mar-09	\$86.7	\$86.7	\$86.7	100%	\$0	\$0.0
Apr-09	\$32.8	\$31.1	\$31.1	100%	\$0	\$1.7
May-09	\$34.8	\$30.3	\$30.3	100%	\$0	\$4.5
Summary for Planning Period 2008 to 2009						
Total	\$1,748.3	\$1,743.8	\$1,743.8	100%	\$0	\$4.5
Jun-09	\$54.6	\$44.0	\$44.0	100%	\$0	\$10.7
Summary for Planning Period 2009 to 2010 through June 30, 2009						
Total	\$54.6	\$44.0	\$44.0	100%	\$0	\$10.7

Auction Revenue Rights

Market Structure

Supply

Incremental ARR

Table 8-15 Incremental ARR allocation volume: Planning periods 2008 to 2009 and 2009 to 2010 (See 2008 SOM Table 8-20)

Planning Period	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
2008/2009	15	891	891	100%	0	0%
2009/2010	14	531	531	100%	0	0%

Table 8-16 Top 10 principal binding transmission constraints limiting the annual ARR allocation: Planning period 2009 to 2010 (See 2008 SOM Table 8-21)

Constraint	Type	Control Zone
AP South	Interface	AP
Electric Junction - Frontenac	Line	ComEd
Linden - North Ave	Line	PSEG
East Frankfort - Braidwood	Line	ComEd
Des Plaines	Transformer	ComEd
Doubs	Transformer	AP
North Seafood - Pine Street	Line	DPL
Garman - Westover	Line	PENELEC
Logans Ferry - Universal	Line	DLCO
Joliet - Joliet Central	Line	ComEd

ARR Reassignment for Retail Load Switching

Table 8-17 ARRs and ARR revenue automatically reassigned for network load changes by control zone: June 1, 2008, through June 30, 2009 (See 2008 SOM Table 8-22)

Control Zone	ARRs Reassigned (MW-day)		ARR Revenue Reassigned [Dollars (Thousands) per MW-day]	
	2008/2009 (12 months)	2009/2010 (1 month)*	2008/2009 (12 months)	2009/2010 (1 month)*
AECO	501	233	\$16.1	\$4.3
AEP	11	0	\$0.2	\$0.0
AP	707	133	\$164.7	\$14.8
BGE	3,361	612	\$124.3	\$12.7
ComEd	3,074	621	\$10.0	\$1.9
DAY	1	0	\$0.0	\$0.0
DLCO	471	92	\$2.1	\$0.2
Dominion	5	0	\$0.4	\$0.0
DPL	1,404	239	\$24.8	\$2.7
JCPL	1,094	493	\$45.0	\$7.5
Met-Ed	0	0	\$0.0	\$0.0
PECO	47	9	\$1.4	\$0.1
PENELEC	0	0	\$0.0	\$0.0
Pepco	3,040	473	\$79.9	\$4.8
PPL	35	2	\$2.2	\$0.1
PSEG	1,537	686	\$62.7	\$17.1
RECO	40	10	\$0.0	\$0.0
Total	15,326	3,603	\$533.9	\$66.2

* Through 30-Jun-09

Market Performance

Volume

Table 8-18 Annual ARR allocation volume: Planning periods 2008 to 2009 and 2009 to 2010 (See 2008 SOM Table 8-23)

Planning Period	Stage	Round	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
2008/2009	1A	0	7,845	64,546	64,520	100.0%	26	0.0%
	1B	1	3,147	27,291	26,685	97.8%	606	2.2%
	2	2	1,691	16,737	6,753	40.3%	9,984	59.7%
	3	3	1,312	15,464	6,304	40.8%	9,160	59.2%
	4	4	1,118	16,630	7,749	46.6%	8,881	53.4%
		Total	4,121	48,831	20,806	42.6%	28,025	57.4%
		Total	15,113	140,668	112,011	79.6%	28,657	20.4%
2009/2010	1A	0	7,527	64,987	64,913	99.9%	74	0.1%
	1B	1	3,582	26,517	26,514	100.0%	3	0.0%
	2	2	1,580	16,521	5,680	34.4%	10,841	65.6%
	3	3	1,157	16,413	6,013	36.6%	10,400	63.4%
	4	4	994	15,599	6,293	40.3%	9,306	59.7%
		Total	3,731	48,533	17,986	37.1%	30,547	62.9%
		Total	14,840	140,037	109,413	78.1%	30,624	21.9%

Revenue Adequacy

Table 8-19 ARR revenue adequacy (Dollars (Millions)): Planning periods 2007 to 2008 and 2008 to 2009 (See 2008 SOM Table 8-24)

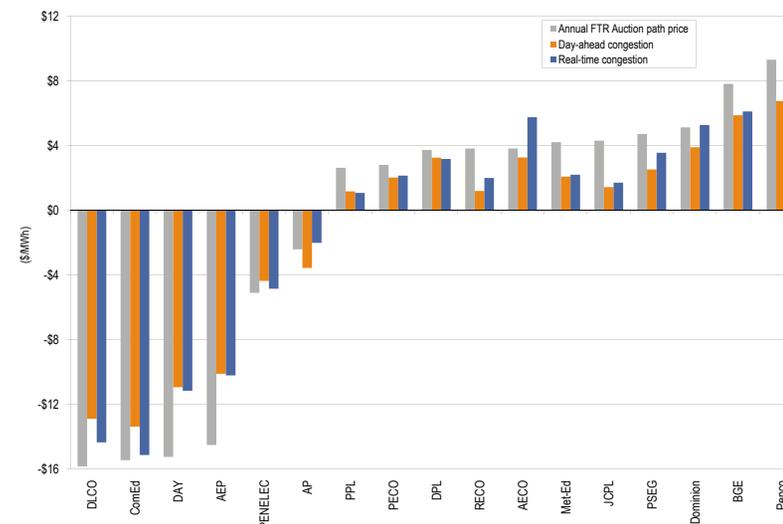
	2008/2009	2009/2010
Total FTR auction net revenue	\$2,489.6	\$1,332.7
Annual FTR Auction net revenue	\$2,422.6	\$1,329.8
Monthly Balance of Planning Period FTR Auction net revenue*	\$67.1	\$2.9
ARR target allocations	\$2,361.3	\$1,273.5
ARR credits	\$2,361.3	\$1,273.5
Surplus auction revenue	\$128.3	\$59.2
ARR payout ratio	100%	100%
FTR payout ratio*	100%	100%

* Shows twelve months for 2008/2009 and one month ended 30-Jun-09 for 2009/2010

ARR and FTR Revenue and Congestion

FTR Prices and Zonal Price Differences

Figure 8-8 Annual FTR Auction prices vs. average day-ahead and real-time congestion for all control zones relative to the Western Hub: Planning period 2008 to 2009 through May 31, 2009 (See 2008 SOM Figure 8-11)



Effectiveness of ARR as a Hedge against Congestion**Table 8-20 ARR and self scheduled FTR congestion hedging by control zone: Planning period 2008 to 2009 (See 2008 SOM Table 8-25)**

Control Zone	ARR Credits	Self-Scheduled FTR Credits	Total Revenue	Congestion	Total Revenue - Congestion Difference	Percent Hedged
AECO	\$26,640,842	\$5,126,844	\$31,767,686	\$86,973,434	(\$55,205,748)	36.5%
AEP	\$4,952,682	\$231,856,718	\$236,809,400	\$205,479,068	\$31,330,332	>100%
AP	\$50,310,148	\$512,353,151	\$562,663,299	\$336,175,310	\$226,487,989	>100%
BGE	\$93,238,869	\$4,134,804	\$97,373,673	(\$411,324)	\$97,784,997	>100%
ComEd	\$15,791,877	\$12,658,294	\$28,450,171	\$147,739,297	(\$119,289,126)	19.3%
DAY	\$9,353,214	\$1,119,768	\$10,472,982	\$5,461,253	\$5,011,729	>100%
DLCO	\$4,691,151	\$0	\$4,691,151	\$31,068,597	(\$26,377,446)	15.1%
Dominion	\$24,970,748	\$4,221,089	\$29,191,837	\$56,924,114	(\$27,732,277)	51.3%
DPL	\$6,990,231	\$246,078,596	\$253,068,827	\$106,753,425	\$146,315,402	>100%
JCPL	\$64,463,301	\$5,636,585	\$70,099,886	\$84,986,431	(\$14,886,545)	82.5%
Met-Ed	\$220,814	\$28,242,556	\$28,463,370	\$47,764,282	(\$19,300,912)	59.6%
PECO	\$4,336,906	\$55,831,240	\$60,168,146	(\$16,483,569)	\$76,651,715	>100%
PENELEC	\$49,024,464	\$24,861,452	\$73,885,916	\$52,667,452	\$21,218,464	>100%
Pepco	\$58,344,157	\$648,017	\$58,992,174	\$294,035,180	(\$235,043,006)	20.1%
PJM	\$10,528,746	(\$9,203,133)	\$1,325,613	\$9,233,073	(\$7,907,460)	14.4%
PPL	\$1,841,709	\$63,076,348	\$64,918,057	\$32,450,329	\$32,467,728	>100%
PSEG	\$119,733,671	\$17,949,360	\$137,683,031	(\$2,672,958)	\$140,355,989	>100%
RECO	\$0	\$0	\$0	\$6,794,177	(\$6,794,177)	0.0%
Total	\$545,433,530	\$1,204,591,689	\$1,750,025,219	\$1,484,937,571	\$265,087,648	>100%

Effectiveness of FTRs as a Hedge against Congestion**Table 8-21 FTR congestion hedging by control zone: Planning period 2008 to 2009 (See 2008 SOM Table 8-26)**

Control Zone	FTR Credits	FTR Auction Revenue	FTR Hedge	Congestion	FTR Hedge - Congestion Difference	Percent Hedged
AECO	\$36,858,894	\$32,933,548	\$3,925,346	\$44,016,104	(\$40,090,758)	8.9%
AEP	\$209,802,906	\$204,085,063	\$5,717,843	\$163,137,494	(\$157,419,651)	3.5%
AP	\$527,925,980	\$780,244,128	(\$252,318,148)	\$308,763,117	(\$561,081,265)	<0%
BGE	\$38,944,903	\$57,160,496	(\$18,215,593)	\$88,353,266	(\$106,568,859)	<0%
ComEd	(\$26,152,262)	(\$4,320,075)	(\$21,832,187)	\$270,705,356	(\$292,537,543)	<0%
DAY	\$1,744,872	(\$2,026,571)	\$3,771,443	\$4,965,895	(\$1,194,452)	75.9%
DLCO	(\$9,342,004)	(\$16,286,386)	\$6,944,382	\$17,171,947	(\$10,227,565)	40.4%
Dominion	\$344,212,309	\$522,524,367	(\$178,312,058)	\$258,555,954	(\$436,868,012)	<0%
DPL	\$50,222,866	\$42,813,893	\$7,408,973	\$79,859,232	(\$72,450,259)	9.3%
JCPL	\$5,730,251	\$104,255,372	(\$98,525,121)	\$92,084,709	(\$190,609,830)	<0%
Met-Ed	\$36,542,204	\$60,190,813	(\$23,648,609)	(\$1,869,811)	(\$21,778,798)	<0%
PECO	\$65,545,964	\$76,721,387	(\$11,175,423)	(\$45,096,152)	\$33,920,729	>100%
PENELEC	\$118,697,998	\$134,333,128	(\$15,635,130)	\$112,232,762	(\$127,867,892)	<0%
Pepco	\$204,600,376	\$260,910,557	(\$56,310,181)	\$168,144,210	(\$224,454,391)	<0%
PJM	(\$3,803,359)	\$2,995,857	(\$6,799,216)	(\$101,307,205)	\$94,507,989	>100%
PPL	\$74,910,276	\$82,036,315	(\$7,126,039)	\$5,081,971	(\$12,208,010)	<0%
PSEG	\$71,755,534	\$148,376,631	(\$76,621,097)	\$18,995,919	(\$95,617,016)	<0%
RECO	\$3,877	\$2,660,947	(\$2,657,070)	\$5,852,897	(\$8,509,967)	<0%
Total	\$1,748,201,585	\$2,489,609,470	(\$741,407,885)	\$1,489,647,665	(\$2,231,055,550)	<0%

Effectiveness of ARRs and FTRs as a Hedge against Congestion**Table 8-22 ARR and FTR congestion hedging by control zone: Planning period 2008 to 2009 (See 2008 SOM Table 8-27)**

Control Zone	ARR Credits	FTR Credits	FTR Auction Revenue	Total ARR and FTR Hedge	Congestion	Total Hedge - Congestion Difference	Percent Hedged
AECO	\$31,771,370	\$36,858,894	\$32,933,548	\$35,696,716	\$44,016,104	(\$8,319,388)	81.1%
AEP	\$286,629,442	\$209,802,906	\$204,085,063	\$292,347,285	\$163,137,494	\$129,209,791	>100%
AP	\$786,115,867	\$527,925,980	\$780,244,128	\$533,797,719	\$308,763,117	\$225,034,602	>100%
BGE	\$98,283,955	\$38,944,903	\$57,160,496	\$80,068,362	\$88,353,266	(\$8,284,904)	90.6%
ComEd	\$24,695,477	(\$26,152,262)	(\$4,320,075)	\$2,863,290	\$270,705,356	(\$267,842,066)	1.1%
DAY	\$9,926,586	\$1,744,872	(\$2,026,571)	\$13,698,029	\$4,965,895	\$8,732,134	>100%
DLCO	\$4,691,151	(\$9,342,004)	(\$16,286,386)	\$11,635,533	\$17,171,947	(\$5,536,414)	67.8%
Dominion	\$463,320,908	\$344,212,309	\$522,524,367	\$285,008,850	\$258,555,954	\$26,452,896	>100%
DPL	\$28,077,406	\$50,222,866	\$42,813,893	\$35,486,379	\$79,859,232	(\$44,372,853)	44.4%
JCPL	\$98,171,902	\$5,730,251	\$104,255,372	(\$353,219)	\$92,084,709	(\$92,437,928)	<0%
Met-Ed	\$50,979,701	\$36,542,204	\$60,190,813	\$27,331,092	(\$1,869,811)	\$29,200,903	>100%
PECO	\$75,104,737	\$65,545,964	\$76,721,387	\$63,929,314	(\$45,096,152)	\$109,025,466	>100%
PENELEC	\$95,333,189	\$118,697,998	\$134,333,128	\$79,698,059	\$112,232,762	(\$32,534,703)	71.0%
Pepco	\$59,162,442	\$204,600,376	\$260,910,557	\$2,852,261	\$168,144,210	(\$165,291,949)	1.7%
PJM	\$20,562,228	(\$3,803,359)	\$2,995,857	\$13,763,012	(\$101,307,205)	\$115,070,217	>100%
PPL	\$73,844,704	\$74,910,276	\$82,036,315	\$66,718,665	\$5,081,971	\$61,636,694	>100%
PSEG	\$154,621,742	\$71,755,534	\$148,376,631	\$78,000,645	\$18,995,919	\$59,004,726	>100%
RECO	\$0	\$3,877	\$2,660,947	(\$2,657,070)	\$5,852,897	(\$8,509,967)	<0%
Total	\$2,361,292,807	\$1,748,201,585	\$2,489,609,470	\$1,619,884,922	\$1,489,647,665	\$130,237,257	>100%

Table 8-23 ARR and FTR congestion hedging: Planning periods 2007 to 2008 and 2008 to 2009 (See 2008 SOM Table 8-28)

Planning Period	ARR Credits	FTR Credits	FTR Auction Revenue	Total ARR and FTR Hedge	Congestion	Total Hedge - Congestion Difference	Percent Hedged
2007/2008	\$1,640,453,406	\$2,038,912,131	\$1,736,137,908	\$1,943,227,629	\$1,995,477,234	(\$52,249,605)	97.4%
2008/2009	\$2,361,292,807	\$1,748,201,585	\$2,489,609,470	\$1,619,884,922	\$1,489,647,665	\$130,237,257	>100%