

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 *2011 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 2010 to 2011 planning period which covers June 1,

2010, through May 31, 2011, and the 2011 to 2012 planning period which covers June 1, 2011, through May 31, 2012.

Table 8-1 The FTR Auction Markets results were competitive

Market Element	Evaluation	Market Design
Market Structure	Competitive	
Participant Behavior	Competitive	
Market Performance	Competitive	Effective

- The market structure was evaluated as competitive because the FTR auction is voluntary and the ownership positions resulted from the distribution of ARRs and voluntary participation.
- Participant behavior was evaluated as competitive because there was no evidence of anti competitive behavior in the first six months of 2011 and there is no limit on FTR demand in any FTR auction.
- Performance was evaluated as competitive because it reflected the interaction between participant behavior and FTR supply limited by PJM's analysis of system feasibility.
- Market design was evaluated as effective because the market design provides a wide range of options for market participants to acquire FTRs and a competitive auction mechanism.

Highlights

- On June 1, 2011, the American Transmission Systems, Inc. (ATSI) Control Zone joined the PJM footprint. Network Service users and Firm Transmission Customers in the ATSI Control Zone participated in the Annual ARR Allocation and the Annual FTR Auction for the 2011 to 2012 planning period.
- FTRs were paid at 84.9 percent of the target allocation level for the full 2010 to 2011 planning period and 86.9 percent for the first month of the 2011 to 2012 planning period.

¹ 87 FERC ¶ 61,054 (1999).

- Total FTR buy bids in the Annual FTR Auction for the 2011 to 2012 planning period increased 88 percent from 1,708,556 MW during the prior planning period to 3,214,678 MW. The Annual FTR Auction for the 2011 to 2012 planning period cleared 341,726 MW, an increase of 48 percent from 231,663 MW during the prior planning period.
- The Annual FTR Auction generated \$1,029.6 million of net revenue for all FTRs during the 2011 to 2012 planning period, a decrease of \$20.2 million from \$1,049.8 million for the 2010 to 2011 planning period.
- In the 2011 to 2012 planning period, 102,476 MW of ARR requests were allocated, compared to 101,843 MW for the 2010 to 2011 planning period.
- Network Service Users and Firm Transmission Customers in the ATSI Control Zone chose to directly allocate 4,189 MW, or 60 percent, of ARRs to FTRs.
- In the 2011 to 2012 planning period, 44.4 percent of ARRs were self-scheduled as FTRs, a 10.2 percentage point decrease from the prior planning period.

Recommendations

- In this *2011 Quarterly State of the Market Report for PJM: January through June*, the recommendations from the *2010 State of the Market Report for PJM* remain MMU recommendations.

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 most recent Long Term FTR Auction was conducted during the 2010 to 2011 planning period and covers three consecutive planning periods between 2011 and 2014. 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 simultaneously accommodate 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 2011 to 2012 planning period include the Doubs Transformer and the Bartonsville – Stephens City line. Market participants can also sell FTRs. In the Annual FTR Auction for the 2011 to 2012 planning period, total FTR sell offers were 337,510 MW, up from 178,248 MW during the 2010 to 2011 planning period. In the Monthly Balance of Planning Period FTR Auctions for the first month (June 2011) of the 2011 to 2012 planning period, total FTR sell offers were 688,530 MW.

- **Demand.** There is no limit on FTR demand in any FTR auction. In the Annual FTR Auction for the 2011 to 2012 planning period, total FTR buy bids were 3,214,678 MW. This is an 88 percent increase from 1,708,556 MW during the 2010 to 2011 Annual FTR Auction. Total FTR self-scheduled bids were 46,017 MW for the 2011 to 2012 planning period, a decrease from 55,732 MW for the 2010 to 2011 planning period. In the Monthly Balance of Planning Period FTR Auctions for the first month (June 2010) of the 2011 to 2012 planning period, total FTR buy bids were 2,180,573 MW.
- **FTR Credit Issues.** There were no participants that defaulted during the first six months of 2011.
- **Patterns of Ownership.** The ownership concentration of cleared FTR buy bids resulting from the 2011 to 2012 Annual FTR Auction was low for peak and off peak FTR obligations and moderately concentrated for 24-hour FTR obligations. The ownership concentration was also low for peak and off peak FTR buy bid options and highly concentrated for 24-hour FTR buy bid options for the same time period. 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 provide additional information about the ownership of prevailing flow and counter flow FTRs, the 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. For the 2011 to 2012 planning period, financial entities own 61 percent of prevailing flow Annual cleared buy bid FTRs while financial entities own 81 percent of counter flow Annual cleared buy bid FTRs. Overall, financial entities own 66 percent of all FTRs bought in the Annual Auction. Financial entities purchased 87 percent of prevailing flow and 86 percent of counter flow FTRs in the Monthly Balance of Planning Period Auctions for the first six months of 2011. The net position of all FTRs, including all auctions, is calculated for every organization each day. The organization's net position is the difference between all FTR buys and FTR sells from all relevant auctions and bilateral trades for each day. The data is summarized for the first six months of 2011 to show ownership patterns by FTR direction. Financial entities owned 64 percent of all prevailing and counter flow FTRs, including 59 percent of all prevailing flow FTRs and 76 percent of all counter flow FTRs and during the same time period.

Market Performance

- Volume.** For the 2011 to 2012 planning period, the Annual FTR Auction cleared 341,726 MW (10.6 percent) of FTR buy bids, up from 231,663 MW (13.6 percent) for the 2010 to 2011 planning period. The Annual FTR Auction also cleared 24,960 MW (7.4 percent) of FTR sell offers for the 2011 to 2012 planning period, up from 10,315 MW (5.8 percent) for the 2010 to 2011 planning period. For the first month of the 2011 to 2012 planning period, the Monthly Balance of Planning Period FTR Auctions cleared 323,157 MW (14.8 percent) of FTR buy bids and 64,937 MW (9.4 percent) of FTR sell offers.
- Price.** For the 2011 to 2012 planning period, 87.2 percent of the Annual FTRs were purchased for less than \$1 per MWh and 92.3 percent for less than \$2 per MWh. For the 2011 to 2012 planning period, the weighted-average prices paid for annual buy-bid FTR obligations were \$0.68 per MWh for 24-hour FTRs, \$0.44 per MWh for on peak FTRs and \$0.28 per MWh for off peak FTRs. Weighted-average prices paid for annual buy-bid FTR obligations for the 2010 to 2011 planning
- period were \$0.43 per MWh for 24-hour FTRs and \$0.73 per MWh for on peak FTRs and \$0.32 per MWh for off peak FTRs. The weighted-average prices paid for 2011 to 2012 planning period annual buy-bid FTR obligations and options were \$0.41 per MWh and \$0.16 per MWh, compared to \$0.35 per MWh and \$0.26 per MWh, in the 2010 to 2011 planning period.² The weighted-average price paid for buy bid FTRs in the Monthly Balance of Planning Period FTR Auctions for the first month of the 2011 to 2012 planning period was \$0.13 per MWh, compared with \$0.14 per MWh for the full 12-month 2010 to 2011 planning period.
- Revenue.** The Annual FTR Auction generated \$1,029.6 million of net revenue for all FTRs during the 2011 to 2012 planning period, down from \$1,049.8 million for the 2010 to 2011 planning period. The Monthly Balance of Planning Period FTR Auctions generated \$5.3 million in net revenue for all FTRs during the first month of the 2011 to 2012 planning period. This is a \$2.8 million increase from the comparable time period in the 2010 to 2011 planning period.
- Revenue Adequacy.** FTRs were 84.9 percent revenue adequate for the 2010 to 2011 planning period. FTRs were paid at 86.9 percent of the target allocation level for the first month of the 2011 to 2012 planning period. The Market Implementation Committee (MIC) approved the creation of the Financial Transmission Rights Task Force (FTRTF) to investigate the causes of the FTR revenue inadequacy that occurred in the 2010 to 2011 Planning Period and identify potential improvements that could be made to minimize the revenue inadequacy going forward.³ Congestion revenues are allocated to FTR holders based on FTR target allocations. PJM collected \$134.6 million of FTR revenues during the first month of the 2011 to 2012 planning period and \$1,431.5 million during the 2010 to 2011 planning period. For the full twelve months of the 2010 to 2011 planning period, the top sink and top source with the highest positive FTR target allocations were the AP Control Zone and the Western Hub. Similarly, the top sink and top source with the largest negative FTR target allocations were the Western Hub and PECO Control Zone.
- Profitability.** FTR profitability is the difference between the revenue received for an FTR and the cost of the FTR. The cost of self scheduled FTRs is zero in the FTR profitability calculation. FTRs were profitable

² 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 2010 to 2011 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 (4,112 hours) and off peak (4,648 hours).

³ PJM Financial Transmission Rights Task Force (FTRTF), <http://pjm.com/committees-and-groups/task-forces/frtf.aspx>.

overall and were profitable for both physical entities and financial entities in the first six months of 2011. FTR profits tended to increase in the summer and winter months when congestion was higher and decrease in the shoulder months when congestion was lower.

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 2011 to 2012 planning period were the South Mahwah — Waldwick line and the East Frankfort — Crete line. Long Term ARRs are in effect for 10 consecutive planning periods and are available in Stage 1A of the annual ARR allocation. Residual ARRs 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 148,538 MW for the 2011 to 2012 planning period with 64,160 MW bid in Stage 1A, 27,325 MW bid in Stage 1B and 57,053 MW bid in Stage 2. This is up from 135,614 MW for the 2010 to 2011 planning period with 61,793 MW bid in Stage 1A, 27,850 MW bid in Stage 1B and 45,971 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 8,243 MW of ARRs associated with approximately \$119,800 of revenue that were reassigned in the first month of the 2011 to 2012 planning period. There were 51,645 MW of ARRs associated with approximately \$1,016,500 of revenue that were reassigned for the full twelve months of the 2010 to 2011 planning period.

Market Performance

- **Volume.** Of 148,538 MW in ARR requests for the 2011 to 2012 planning period, 102,476 MW (69.0 percent) were allocated. There were 64,160 MW allocated in Stage 1A, 22,208 MW allocated in Stage 1B and 16,108 MW allocated in Stage 2. Eligible market participants self scheduled 46,017 MW (44.4 percent) of these allocated ARRs as Annual FTRs. Of 135,614 MW in ARR requests for the 2010 to 2011 planning period, 101,843 MW (75.1 percent) were allocated. There were 61,793 MW allocated in Stage 1A, 27,850 MW allocated in Stage 1B and 12,200 MW allocated in Stage 2. Eligible market participants self scheduled 55,732 MW (54.6 percent) of these allocated ARRs as Annual FTRs.

On June 1, 2011, the American Transmission Systems, Inc. (ATSI) Control Zone was integrated into PJM. Network Service Users and Firm Transmission Customers in the ATSI Control Zone participated in the 2011 to 2012 Annual ARR Allocation. For a transitional period, those customers that receive, and pay for, firm transmission service that sinks in newly integrated PJM control zones may elect to receive a direct allocation of FTRs instead of an allocation of ARRs. This transitional period covers the succeeding two Annual FTR Auctions after the integration of the new zone into PJM. Network Service Users and Firm Transmission Customers cannot choose to receive both an FTR allocation and an ARR allocation. This selection applies to the participant's entire portfolio of ARRs that sink into the ATSI Control Zone. During this transitional period, the directly allocated FTRs are reallocated as load shifts between LSEs within the transmission zone. As load shifts from one LSE to another within the transmission zone, a proportionate share of the directly allocated FTRs are shifted by the LSE that loses load to the LSE gaining load. Table 8-25 separately lists the ARR volume for the ATSI Control Zone, which is included in the 2011 to 2012 ARR allocation volume in Table 8-24. Table 8-26 lists the directly allocated FTR volume for the 2011 to 2012 planning period for the ATSI Control Zone, which is not included in the data in Table 8-24 and Table 8-25. Of the 6,959 MW of ARRs that sink in ATSI, 4,189 MW were directly allocated as FTRs rather than allocated as ARRs for the 2011 to 2012 planning period.

- **Revenue.** ARRs receive revenues in the form of credits based on the results of the FTR auctions. During the 2011 to 2012 planning period, ARR holders will receive \$982.9 million in ARR credits, with an average hourly ARR credit of \$1.09 per MWh.

- Revenue Adequacy.** During the 2011 to 2012 planning period, the ARR target allocations were \$982.9 million while PJM collected \$1,070.8 million from the combined Long Term, Annual and Monthly Balance of Planning Period FTR Auctions through June 30, 2011, making ARRs revenue adequate. For the 2010 to 2011 planning period, the ARR target allocations were \$1,029.3 million while PJM collected \$1,097.8 million from the combined Long Term, Annual and Monthly Balance of Planning Period FTR Auctions, making ARRs revenue adequate.
 - ARR Proration.** For the 2011 to 2012 planning period, no ARRs were prorated in Stage 1A of the annual ARR allocation. In Stage 1B, the constraints affecting ARR allocation were Electric Junction — Nelson line, AP South Interface and the Cedar Grove — Clifton line. There were 5,117 MW of Stage 1B ARRs denied to participants whose requested ARRs affected those binding constraints. For the 2010 to 2011 planning period, no ARRs were prorated in Stage 1A and Stage 1B of the annual ARR allocation.
 - 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 effectiveness of ARRs as a hedge can be measured by comparing the revenue received by ARR holders to the congestion costs experienced by these ARR holders in the Day-Ahead Energy Market and the balancing energy market. For the 2009 to 2010 planning period, all ARRs and FTRs hedged more than 96.2 percent of the congestion costs within PJM. During the 2010 to 2011 planning period, total ARR and FTR revenues hedged 96.9 percent of the congestion costs within PJM.
 - ARRs and FTRs as a Hedge against Total Energy Costs.** The value provided by ARRs and FTRs can also be measured by comparing the value of the ARRs and FTRs that sink in a zone to the cost of real time energy in the zone. The total value of ARRs plus FTRs was 3.3 percent of the total real time energy charges in the first three months of 2011.
- FTR auction results for the 2010 to 2011 planning period were competitive and succeeded in providing all qualified market participants with equal access to FTRs.
- FTRs were paid at 84.9 percent of the target allocation level for the 2010 to 2011 planning period. FTRs for the first month of the 2011 to 2012 planning period were paid at 86.9 percent of the target allocation level. Revenue adequacy for a planning period is not final until the end of the period.
- 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 total of ARR and FTR revenues hedged more than 96.9 percent of the congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM for the 2010 to 2011 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 ARR and FTR holders, their revenues or those paying congestion.

Conclusion

The annual ARR allocation and the FTR auctions provide market participants with the opportunity to hedge positions or to speculate. 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

Financial Transmission Rights

Market Structure

Supply

Table 8-2 Top 10 principal binding transmission constraints limiting the Annual FTR Auction: Planning period 2011 to 2012 (See 2010 SOM, Table 8-3)

Constraint	Type	Control Zone	Severity Ranking by Auction Round			
			1	2	3	4
Doubs	Transformer	AP	1	1	1	1
Bartonsville - Stephens City	Line	AP	2	2	NA	NA
Goose Creek - Rising	Flowgate	MISO	3	4	2	2
Tiltonsville - Windsor	Line	AP	4	5	4	3
Nipetown - Reid	Line	AP	5	3	3	4
Bedington - Harmony	Line	AP	13	6	5	5
Bartonsville - Meadowbrook	Line	AP	NA	NA	6	8
Cook - Palisades	Flowgate	MISO	6	9	12	14
Mahans Lane - Tidd	Line	AEP	12	7	7	6
Belmont	Transformer	AP	8	8	8	7

Patterns of Ownership

Table 8-3 Annual FTR Auction patterns of ownership by FTR direction: Planning period 2011 to 2012 (See 2010 SOM, Table 8-5)

Trade Type	Organization Type	Self-Scheduled FTRs	FTR Direction		All
			Prevailing Flow	Counter Flow	
Buy Bids	Physical	Yes	15.0%	1.4%	11.7%
		No	23.9%	18.0%	22.5%
		Total	38.9%	19.4%	34.2%
	Financial	No	61.0%	80.6%	65.6%
		Total	100.0%	100.0%	100.0%
Sell Offers	Physical		9.2%	10.4%	9.4%
		Financial	90.8%	89.6%	90.6%
		Total	100.0%	100.0%	100.0%

Table 8-4 Monthly Balance of Planning Period FTR Auction patterns of ownership by FTR direction: January through June 2011 (See 2010 SOM, Table 8-6)

Trade Type	Organization Type	FTR Direction		All
		Prevailing Flow	Counter Flow	
Buy Bids	Physical	12.7%	14.5%	13.2%
	Financial	87.3%	85.5%	86.8%
	Total	100.0%	100.0%	100.0%
Sell Offers	Physical	34.8%	23.9%	33.1%
	Financial	65.2%	76.1%	66.9%
	Total	100.0%	100.0%	100.0%

Table 8-5 Daily FTR net position ownership by FTR direction: January through June 2011 (See 2010 SOM, Table 8-7)

Organization Type	FTR Direction		All
	Prevailing Flow	Counter Flow	
Physical	40.7%	24.2%	36.4%
Financial	59.3%	75.8%	63.6%
Total	100.0%	100.0%	100.0%

Market Performance

Volume

Table 8-6 Annual FTR Auction market volume: Planning period 2011 to 2012 (See 2010 SOM, Table 8-9)

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	85,370	333,758	90,935	27.2%	242,823	72.8%
		Prevailing Flow	289,403	1,756,443	201,338	11.5%	1,555,105	88.5%
		Total	374,773	2,090,201	292,273	14.0%	1,797,928	86.0%
	Options	Counter Flow	0	0	0	0.0%	0	0.0%
		Prevailing Flow	30,614	1,124,477	49,453	4.4%	1,075,024	95.6%
		Total	30,614	1,124,477	49,453	4.4%	1,075,024	95.6%
Total	Counter Flow	85,370	333,758	90,935	27.2%	242,823	72.8%	
	Prevailing Flow	320,017	2,880,920	250,791	8.7%	2,630,129	91.3%	
	Total	405,387	3,214,678	341,726	10.6%	2,872,952	89.4%	
Self-scheduled bids	Obligations	Counter Flow	249	1,278	1,278	100.0%	0	0.0%
		Prevailing Flow	10,163	44,739	44,739	100.0%	0	0.0%
		Total	10,412	46,017	46,017	100.0%	0	0.0%
Buy and self-scheduled bids	Obligations	Counter Flow	85,619	335,036	92,213	27.5%	242,823	72.5%
		Prevailing Flow	299,566	1,801,182	246,077	13.7%	1,555,105	86.3%
		Total	385,185	2,136,218	338,290	15.8%	1,797,928	84.2%
	Options	Counter Flow	0	0	0	0.0%	0	0.0%
		Prevailing Flow	30,614	1,124,477	49,453	4.4%	1,075,024	95.6%
		Total	30,614	1,124,477	49,453	4.4%	1,075,024	95.6%
Total	Counter Flow	85,619	335,036	92,213	27.5%	242,823	72.5%	
	Prevailing Flow	330,180	2,925,659	295,530	10.1%	2,630,129	89.9%	
	Total	415,799	3,260,695	387,743	11.9%	2,872,952	88.1%	
Sell offers	Obligations	Counter Flow	26,728	104,952	4,126	3.9%	100,826	96.1%
		Prevailing Flow	49,422	214,419	20,668	9.6%	193,751	90.4%
		Total	76,150	319,371	24,794	7.8%	294,577	92.2%
	Options	Counter Flow	0	0	0	0.0%	0	0.0%
		Prevailing Flow	823	18,139	166	0.9%	17,973	99.1%
		Total	823	18,139	166	0.9%	17,973	99.1%
Total	Counter Flow	26,728	104,952	4,126	3.9%	100,826	96.1%	
	Prevailing Flow	50,245	232,558	20,834	9.0%	211,724	91.0%	
	Total	76,973	337,510	24,960	7.4%	312,550	92.6%	

Table 8-7 Comparison of self scheduled FTRs: Planning periods from 2008 to 2009 through 2011 to 2012 (See 2010 SOM, Table 8-10)

Planning Period	Self-Scheduled FTRs (MW)	Maximum Possible Self-Scheduled FTRs (MW)	Percent of ARRs Self-Scheduled as FTRs
2008/2009	72,851	112,011	65.0%
2009/2010	68,589	109,612	62.6%
2010/2011	55,732	102,046	54.6%
2011/2012	46,017	103,660	44.4%

Table 8-8 Monthly Balance of Planning Period FTR Auction market volume: January through June 2011 (See 2010 SOM, Table 8-11)

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-11	Obligations	Buy bids	189,084	1,101,808	164,743	15.0%	937,065	85.0%
		Sell offers	50,981	261,888	28,189	10.8%	233,699	89.2%
	Options	Buy bids	1,040	105,293	8,691	8.3%	96,602	91.7%
		Sell offers	2,927	43,161	12,380	28.7%	30,781	71.3%
Feb-11	Obligations	Buy bids	185,625	1,090,475	181,977	16.7%	908,497	83.3%
		Sell offers	41,609	220,079	20,957	9.5%	199,122	90.5%
	Options	Buy bids	959	93,909	9,372	10.0%	84,537	90.0%
		Sell offers	2,555	33,140	9,643	29.1%	23,497	70.9%
Mar-11	Obligations	Buy bids	192,349	1,154,132	216,165	18.7%	937,967	81.3%
		Sell offers	48,727	256,121	30,492	11.9%	225,629	88.1%
	Options	Buy bids	1,026	96,152	7,254	7.5%	88,898	92.5%
		Sell offers	2,351	41,200	10,587	25.7%	30,613	74.3%
Apr-11	Obligations	Buy bids	149,735	847,576	164,278	19.4%	683,297	80.6%
		Sell offers	37,737	220,966	22,108	10.0%	198,858	90.0%
	Options	Buy bids	919	66,008	5,387	8.2%	60,621	91.8%
		Sell offers	1,834	32,136	9,327	29.0%	22,810	71.0%
May-11	Obligations	Buy bids	138,353	741,926	189,851	25.6%	552,075	74.4%
		Sell offers	27,642	122,217	13,661	11.2%	108,556	88.8%
	Options	Buy bids	759	20,612	2,485	12.1%	18,127	87.9%
		Sell offers	1,184	19,631	9,065	46.2%	10,566	53.8%
Jun-11	Obligations	Buy bids	332,116	1,924,420	312,144	16.2%	1,612,276	83.8%
		Sell offers	135,073	585,528	40,839	7.0%	544,689	93.0%
	Options	Buy bids	7,625	256,153	11,013	4.3%	245,140	95.7%
		Sell offers	18,794	103,002	24,097	23.4%	78,905	76.6%
2010/2011*	Obligations	Buy bids	2,378,154	12,888,263	1,975,624	15.3%	10,912,639	84.7%
		Sell offers	709,605	3,448,995	311,688	9.0%	3,137,308	91.0%
	Options	Buy bids	16,090	1,403,272	67,536	4.8%	1,335,736	95.2%
		Sell offers	60,091	568,271	147,251	25.9%	421,021	74.1%
2011/2012**	Obligations	Buy bids	332,116	1,924,420	312,144	16.2%	1,612,276	83.8%
		Sell offers	135,073	585,528	40,839	7.0%	544,689	93.0%
	Options	Buy bids	7,625	256,153	11,013	4.3%	245,140	95.7%
		Sell offers	18,794	103,002	24,097	23.4%	78,905	76.6%

* Shows twelve months for 2010/2011; ** Shows one month ended 30-Jun-2011 for 2011/2012

Table 8-9 Monthly Balance of Planning Period FTR Auction buy-bid bid and cleared volume (MW per period): January through June 2011 (See 2010 SOM, Table 8-12)

Monthly Auction	MW Type	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-11	Bid	677,552	197,260	140,265				192,024	1,207,101
	Cleared	134,232	18,200	8,548				12,454	173,434
Feb-11	Bid	705,015	157,482	139,776				182,111	1,184,383
	Cleared	156,562	11,243	11,107				12,438	191,350
Mar-11	Bid	774,291	206,225	205,539				64,228	1,250,283
	Cleared	173,607	22,830	20,602				6,380	223,419
Apr-11	Bid	698,577	215,007						913,583
	Cleared	153,834	15,832						169,665
May-11	Bid	762,538							762,538
	Cleared	192,336							192,336
Jun-11	Bid	893,961	247,465	245,244	87,002	241,008	219,128	246,765	2,180,573
	Cleared	176,087	28,040	27,497	10,733	28,673	26,805	25,321	323,157

Table 8-10 Secondary bilateral FTR market volume: Planning periods 2010 to 2011 and 2011 to 2012⁴ (See 2010 SOM, Table 8-13)

Planning Period	Hedge Type	Class Type	Volume (MW)		
2010/2011	Obligation	24-Hour	1,729		
		On Peak	10,578		
		Off Peak	12,740		
		Total	25,047		
		Option	24-Hour	20	
		On Peak	0		
		Off Peak	0		
		Total	20		
		2011/2012*	Obligation	24-Hour	292
				On Peak	312
Off Peak	223				
Total	826				
	Option	24-Hour	20		
		On Peak	0		
		Off Peak	0		
		Total	20		

* Shows one month ended 30-Jun-2011

⁴ The 2011 to 2012 planning period covers bilateral FTRs that are effective for any time between June 1, 2011 through June 30, 2011, which originally had been purchased in a Long Term FTR Auction, Annual FTR Auction or Monthly Balance of Planning Period FTR Auction.

Price**Table 8-11 Annual FTR Auction weighted-average cleared prices (Dollars per MWh): Planning period 2011 to 2012 (See 2010 SOM, Table 8-15)**

Trade Type	Hedge Type	FTR Direction	Class Type				
			24-Hour	On Peak	Off Peak	All	
Buy bids	Obligations	Counter Flow	(\$0.76)	(\$0.51)	(\$0.38)	(\$0.47)	
		Prevailing Flow	\$1.04	\$0.86	\$0.62	\$0.79	
		Total	\$0.68	\$0.44	\$0.28	\$0.41	
	Options	Counter Flow	\$0.00	\$0.00	\$0.00	\$0.00	
		Prevailing Flow	\$0.89	\$0.20	\$0.11	\$0.16	
		Total	\$0.89	\$0.20	\$0.11	\$0.16	
Self-scheduled bids	Obligations	Counter Flow	(\$0.11)	NA	NA	(\$0.11)	
		Prevailing Flow	\$1.20	NA	NA	\$1.20	
		Total	\$1.16	NA	NA	\$1.16	
Buy and self-scheduled bids	Obligations	Counter Flow	(\$0.62)	(\$0.51)	(\$0.38)	(\$0.46)	
		Prevailing Flow	\$1.15	\$0.86	\$0.62	\$0.91	
		Total	\$1.00	\$0.44	\$0.28	\$0.58	
	Options	Counter Flow	\$0.00	\$0.00	\$0.00	\$0.00	
		Prevailing Flow	\$0.89	\$0.20	\$0.11	\$0.16	
		Total	\$0.89	\$0.20	\$0.11	\$0.16	
	Sell offers	Obligations	Counter Flow	(\$3.16)	(\$0.70)	(\$0.61)	(\$0.87)
			Prevailing Flow	\$1.09	\$0.71	\$0.41	\$0.59
			Total	(\$0.12)	\$0.51	\$0.21	\$0.34
Options		Counter Flow	\$0.00	\$0.00	\$0.00	\$0.00	
		Prevailing Flow	\$0.00	\$2.05	\$0.47	\$0.75	
		Total	\$0.00	\$2.05	\$0.47	\$0.75	

Figure 8-1 Annual FTR auction clearing price duration curves: Planning period 2011 to 2012
(See 2010 SOM, Figure 8-2)

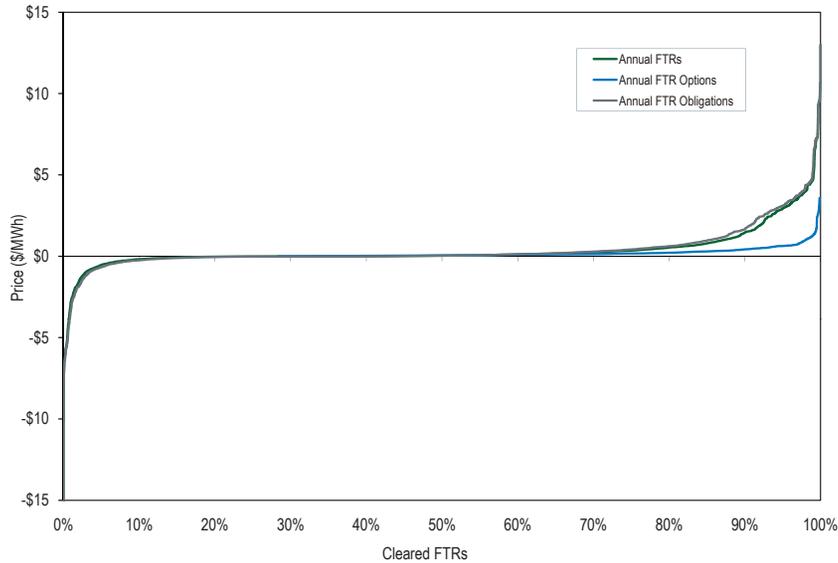


Table 8-12 Monthly Balance of Planning Period FTR Auction cleared, weighted-average, buy-bid price per period (Dollars per MWh): January through June 2011 (See 2010 SOM, Table 8-16)

Monthly Auction	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-11	\$0.13	\$0.36	\$0.02				\$0.28	\$0.17
Feb-11	\$0.08	\$0.13	\$0.11				\$0.18	\$0.10
Mar-11	\$0.09	\$0.16	\$0.15				\$0.04	\$0.09
Apr-11	\$0.07	\$0.23						\$0.08
May-11	\$0.06							\$0.06
Jun-11	\$0.06	\$0.15	\$0.07	\$0.33	\$0.12	\$0.20	\$0.13	\$0.13

Revenue**Annual FTR Auction Revenue****Table 8-13 Annual FTR Auction revenue: Planning period 2011 to 2012 (See 2010 SOM, Table 8-18)**

Trade Type	Hedge Type	FTR Direction	Class Type			
			24-Hour	On Peak	Off Peak	All
Buy bids	Obligations	Counter Flow	(\$31,727,221)	(\$86,595,481)	(\$79,270,931)	(\$197,593,633)
		Prevailing Flow	\$173,929,276	\$333,218,996	\$253,894,947	\$761,043,219
		Total	\$142,202,056	\$246,623,514	\$174,624,016	\$563,449,586
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$1,243,985	\$19,888,318	\$12,943,329	\$34,075,631
		Total	\$1,243,985	\$19,888,318	\$12,943,329	\$34,075,631
	Total	Counter Flow	(\$31,727,221)	(\$86,595,481)	(\$79,270,931)	(\$197,593,633)
		Prevailing Flow	\$175,173,262	\$353,107,313	\$266,838,275	\$795,118,850
		Total	\$143,446,041	\$266,511,832	\$187,567,345	\$597,525,217
Self-scheduled bids	Obligations	Counter Flow	(\$1,219,303)	NA	NA	(\$1,219,303)
		Prevailing Flow	\$471,940,076	NA	NA	\$471,940,076
		Total	\$470,720,773	NA	NA	\$470,720,773
Buy and self-scheduled bids	Obligations	Counter Flow	(\$32,946,524)	(\$86,595,481)	(\$79,270,931)	(\$198,812,936)
		Prevailing Flow	\$645,869,353	\$333,218,996	\$253,894,947	\$1,232,983,295
		Total	\$612,922,829	\$246,623,514	\$174,624,016	\$1,034,170,359
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$1,243,985	\$19,888,318	\$12,943,329	\$34,075,631
		Total	\$1,243,985	\$19,888,318	\$12,943,329	\$34,075,631
	Total	Counter Flow	(\$32,946,524)	(\$86,595,481)	(\$79,270,931)	(\$198,812,936)
		Prevailing Flow	\$647,113,338	\$353,107,313	\$266,838,275	\$1,267,058,926
		Total	\$614,166,814	\$266,511,832	\$187,567,345	\$1,068,245,990
Sell offers	Obligations	Counter Flow	(\$5,147,167)	(\$5,228,336)	(\$6,092,443)	(\$16,467,946)
		Prevailing Flow	\$4,479,226	\$33,317,024	\$16,705,071	\$54,501,321
		Total	(\$667,941)	\$28,088,688	\$10,612,627	\$38,033,375
	Options	Counter Flow	\$0	\$0	\$0	\$0
		Prevailing Flow	\$0	\$275,150	\$294,744	\$569,895
		Total	\$0	\$275,150	\$294,744	\$569,895
	Total	Counter Flow	(\$5,147,167)	(\$5,228,336)	(\$6,092,443)	(\$16,467,946)
		Prevailing Flow	\$4,479,226	\$33,592,175	\$16,999,815	\$55,071,216
		Total	(\$667,941)	\$28,363,839	\$10,907,372	\$38,603,270

Figure 8-2 Ten largest positive and negative revenue producing FTR sinks purchased in the Annual FTR Auction: Planning period 2011 to 2012 (See 2010 SOM, Figure 8-5)

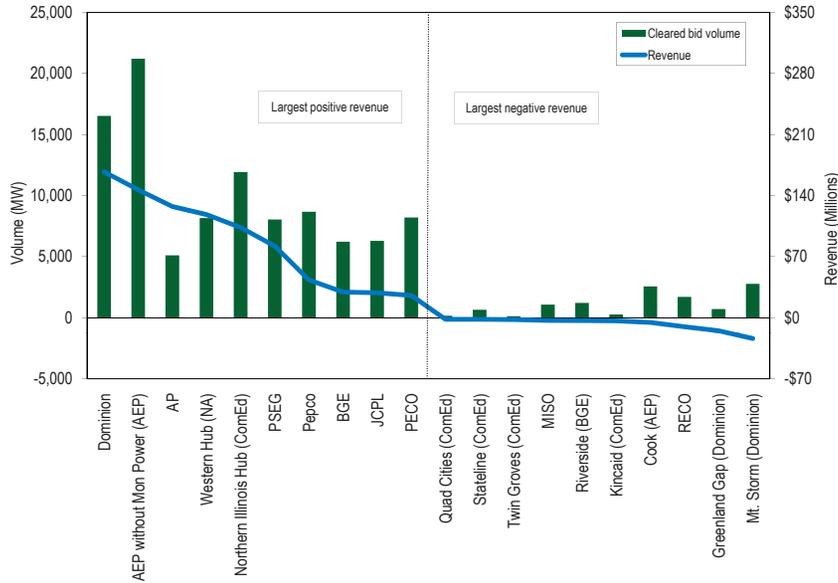
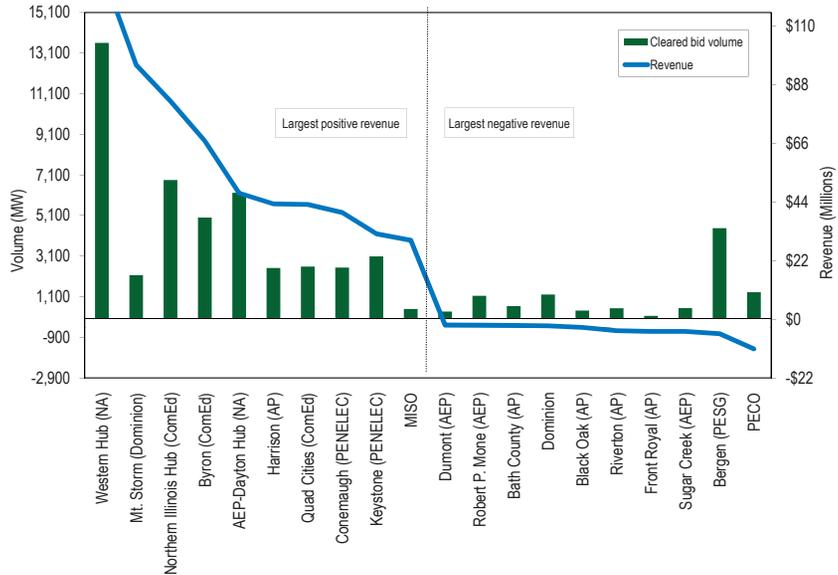


Figure 8-3 Ten largest positive and negative revenue producing FTR sources purchased in the Annual FTR Auction: Planning period 2011 to 2012 (See 2010 SOM, Figure 8-6)



Monthly Balance of Planning Period FTR Auction Revenue**Table 8-14 Monthly Balance of Planning Period FTR Auction revenue: January through June 2011 (See 2010 SOM, Table 8-19)**

Monthly Auction	Hedge Type	Trade Type	Class Type			
			24-Hour	On Peak	Off Peak	All
Jan-11	Obligations	Buy bids	(\$1,205,888)	\$7,104,026	\$6,539,294	\$12,437,433
		Sell offers	\$1,138,221	\$2,625,465	\$4,050,289	\$7,813,975
	Options	Buy bids	\$0	\$136,353	\$87,800	\$224,153
		Sell offers	\$0	\$1,812,131	\$686,209	\$2,498,340
Feb-11	Obligations	Buy bids	(\$36,220)	\$4,296,859	\$3,345,841	\$7,606,480
		Sell offers	\$587,026	\$1,938,472	\$2,305,072	\$4,830,570
	Options	Buy bids	\$0	\$126,188	\$25,671	\$151,859
		Sell offers	\$1,947	\$1,218,343	\$389,391	\$1,609,682
Mar-11	Obligations	Buy bids	(\$101,074)	\$4,605,081	\$3,368,274	\$7,872,281
		Sell offers	\$423,197	\$2,274,909	\$1,933,265	\$4,631,371
	Options	Buy bids	\$14,085	\$292,986	\$178,090	\$485,161
		Sell offers	\$5,149	\$1,231,751	\$454,338	\$1,691,239
Apr-11	Obligations	Buy bids	\$374,217	\$2,884,005	\$1,629,459	\$4,887,681
		Sell offers	\$677,941	\$1,461,719	\$878,890	\$3,018,551
	Options	Buy bids	\$4,569	\$88,824	\$54,691	\$148,084
		Sell offers	\$3,727	\$721,783	\$403,883	\$1,129,392
May-11	Obligations	Buy bids	\$451,258	\$2,063,976	\$1,214,403	\$3,729,637
		Sell offers	\$210,714	\$1,074,632	\$567,818	\$1,853,164
	Options	Buy bids	\$0	\$91,362	\$181,717	\$273,078
		Sell offers	\$185	\$539,763	\$393,717	\$933,665
Jun-11	Obligations	Buy bids	\$1,960,494	\$13,115,229	\$8,318,764	\$23,394,487
		Sell offers	\$5,175,453	\$5,288,319	\$2,797,969	\$13,261,740
	Options	Buy bids	\$0	\$186,515	\$192,243	\$378,758
		Sell offers	\$0	\$3,103,330	\$2,147,165	\$5,250,495
2010/2011*	Obligations	Buy bids	\$4,299,849	\$72,821,616	\$53,395,404	\$130,516,869
		Sell offers	\$8,535,079	\$35,362,863	\$29,972,637	\$73,870,579
	Options	Buy bids	\$41,745	\$2,698,623	\$2,098,161	\$4,838,530
		Sell offers	\$1,878,318	\$20,472,308	\$14,658,870	\$37,009,496
2011/2012**	Obligations	Buy bids	\$1,960,494	\$13,115,229	\$8,318,764	\$23,394,487
		Sell offers	\$5,175,453	\$5,288,319	\$2,797,969	\$13,261,740
	Options	Buy bids	\$0	\$186,515	\$192,243	\$378,758
		Sell offers	\$0	\$3,103,330	\$2,147,165	\$5,250,495

* Shows twelve months for 2010/2011; ** Shows one month ended 30-Jun-2011 for 2011/2012

Figure 8-4 Ten largest positive and negative revenue producing FTR sinks purchased in the Monthly Balance of Planning Period FTR Auctions: Planning period 2010 to 2011 (See 2010 SOM, Figure 8-7)

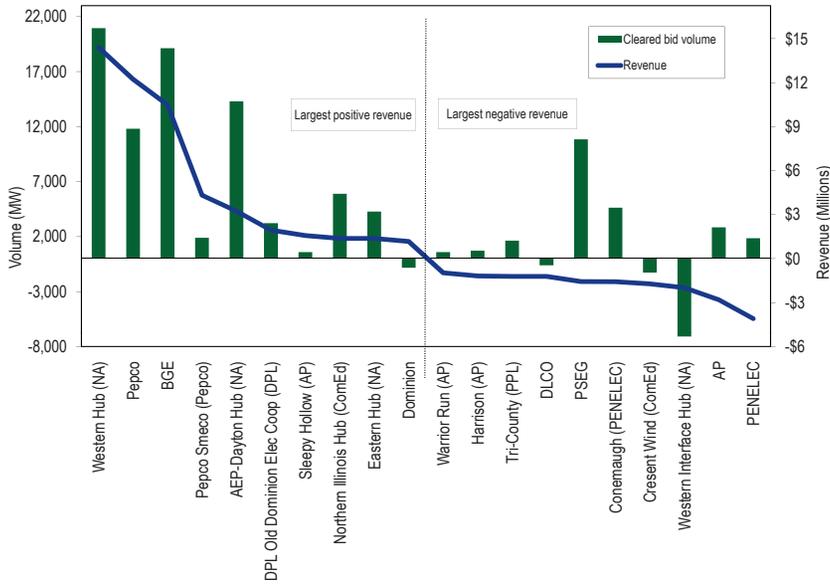
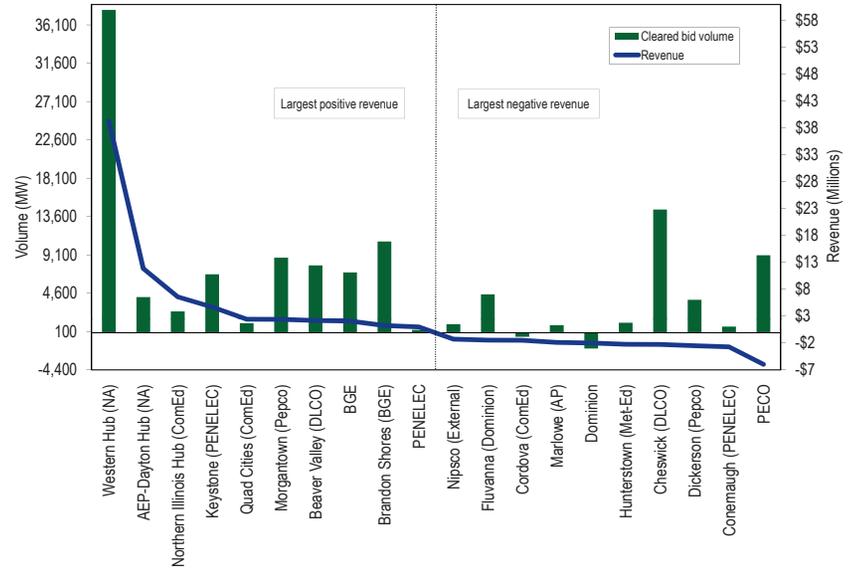


Figure 8-5 Ten largest positive and negative revenue producing FTR sources purchased in the Monthly Balance of Planning Period FTR Auctions: Planning period 2010 to 2011 (See 2010 SOM, Figure 8-8)



Revenue Adequacy

Table 8-15 Total annual PJM FTR revenue detail (Dollars (Millions)): Planning periods 2010 to 2011 and 2011 to 2012 (See 2010 SOM, Table 8-20)

Accounting Element	2010/2011	2011/2012*
ARR information		
ARR target allocations	\$1,031.0	\$80.6
FTR auction revenue	\$1,097.8	\$89.1
ARR excess	\$66.9	\$8.5
FTR targets		
FTR target allocations	\$1,687.6	\$154.8
Adjustments:		
Adjustments to FTR target allocations	(\$1.8)	\$0.0
Total FTR targets	\$1,685.8	\$154.8
FTR revenues		
ARR excess	\$66.9	\$8.5
Competing uses	\$0.1	\$0.0
Congestions		
Net Negative Congestion (enter as negative)	(\$59.5)	(\$3.2)
Hourly congestion revenue	\$1,464.9	\$138.1
MISO M2M (credit to PJM minus credit to MISO)	(\$47.8)	(\$8.7)
Consolidated Edison Company of New York and Public Service Electric and Gas Company Wheel (CEPSW) congestion credit to Con Edison (enter as negative)	(\$0.8)	(\$0.1)
Adjustments:		
Excess revenues carried forward into future months	\$0.0	\$0.0
Excess revenues distributed back to previous months	\$4.6	\$0.0
Other adjustments to FTR revenues	\$0.5	\$0.0
Total FTR revenues	\$1,428.8	\$134.6
Excess revenues distributed to other months	(\$4.6)	\$0.0
Net Negative Congestion charged to DA Operating Reserves	\$7.3	\$0.0
Excess revenues distributed to CEPSW for end-of-year distribution	\$0.0	\$0.0
Excess revenues distributed to FTR holders	\$0.0	\$0.0
Total FTR congestion credits	\$1,431.5	\$134.6
Total congestion credits on bill (includes CEPSW and end-of-year distribution)	\$1,432.3	\$134.6
Remaining deficiency	\$254.2	\$20.3

* Shows one month ended 30-June-11

Table 8-16 Monthly FTR accounting summary (Dollars (Millions)): Planning periods 2010 to 2011 and 2011 to 2012 through June 30, 2011 (See 2010 SOM, Table 8-21)

Period	FTR Revenues (with adjustments)	FTR Target Allocations	FTR Payout Ratio (original)	FTR Credits (with adjustments)	FTR Payout Ratio (with adjustments)	Monthly Credits Excess/Deficiency (with adjustments)
Jun-10	\$194.2	\$196.1	97.8%	\$194.2	99.0%	(\$1.9)
Jul-10	\$275.0	\$273.0	100.0%	\$273.0	100.0%	\$0.0
Aug-10	\$111.3	\$119.2	93.2%	\$111.3	93.4%	(\$7.9)
Sep-10	\$116.7	\$165.3	70.0%	\$116.7	70.6%	(\$48.5)
Oct-10	\$52.4	\$67.4	77.4%	\$52.4	77.8%	(\$14.9)
Nov-10	\$51.5	\$80.0	61.9%	\$51.5	64.4%	(\$28.5)
Dec-10	\$185.0	\$251.1	73.2%	\$185.0	73.7%	(\$66.2)
Jan-11	\$245.4	\$249.5	98.3%	\$245.4	98.4%	(\$4.0)
Feb-11	\$79.4	\$93.0	85.0%	\$79.4	85.4%	(\$13.6)
Mar-11	\$48.2	\$45.6	100.0%	\$45.6	100.0%	\$0.0
Apr-11	\$39.4	\$73.2	52.4%	\$39.4	53.9%	(\$33.8)
May-11	\$37.5	\$72.5	45.1%	\$37.5	51.8%	(\$34.9)
Summary for Planning Period 2010 to 2011						
Total	\$1,431.5	\$1,685.8		\$1,431.5	84.9%	(\$254.2)
Jun-11	\$134.6	\$154.8	86.9%	\$134.6	86.9%	(\$20.3)
Summary for Planning Period 2011 to 2012 through June 30, 2011						
Total	\$134.6	\$154.8		\$134.6	86.9%	(\$20.3)

Figure 8-6 FTR payout ratio by month: June 2003 to June 2011⁵ (See 2010 SOM, Figure 8-9)

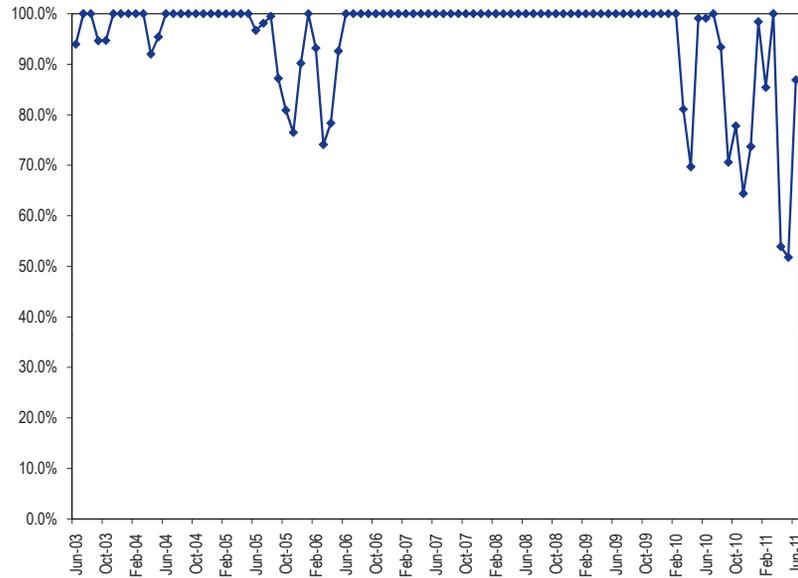


Figure 8-7 Ten largest positive and negative FTR target allocations summed by sink: Planning period 2010 to 2011 (See 2010 SOM, Figure 8-10)

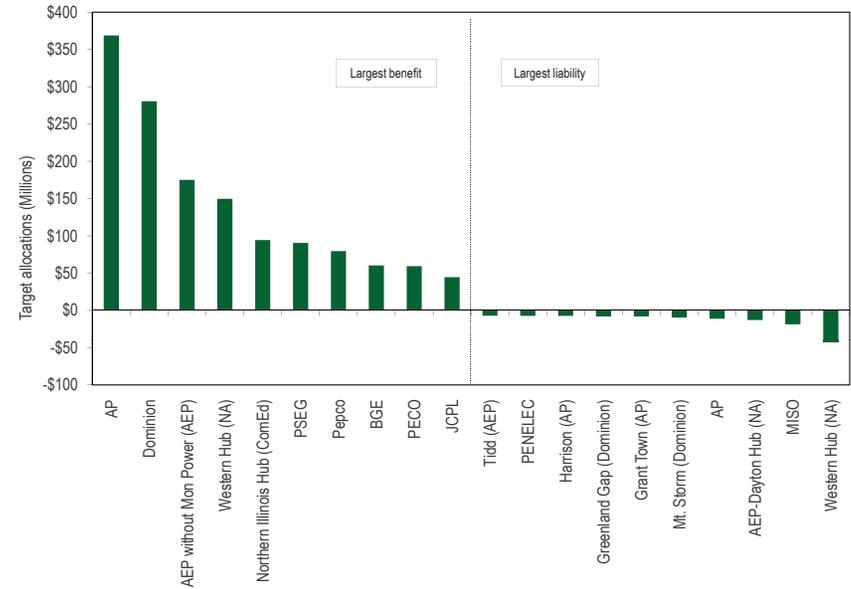
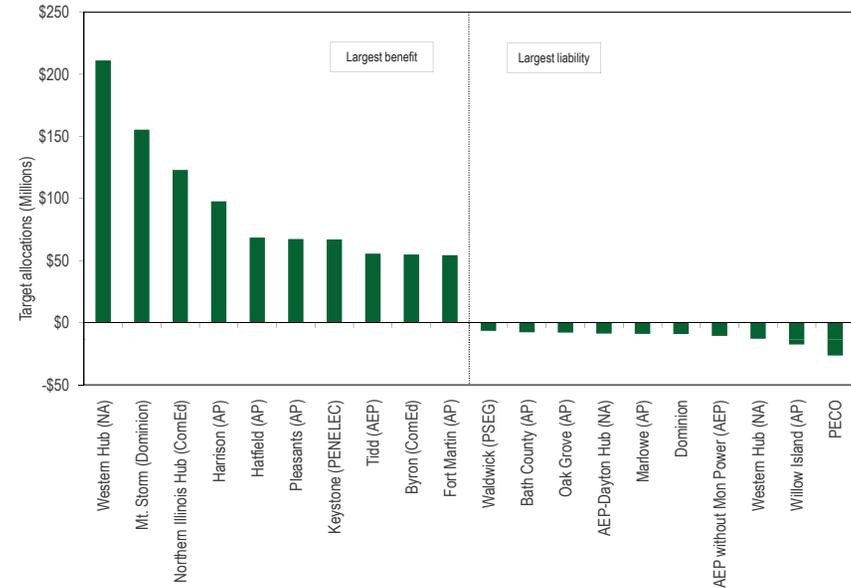


Table 8-17 FTR payout ratio by planning period (See 2010 SOM, Table 8-22)

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	84.9%
2011/2012*	86.9%

* through June 30, 2011

Figure 8-8 Ten largest positive and negative FTR target allocations summed by source: Planning period 2010 to 2011 (See 2010 SOM, Figure 8-11)



⁵ The underlying data for Figure 8-6 and Table 8-17 is from the "FTR Credit" spreadsheet posted on PJM's website at <http://www.pjm.com/markets-and-operations/fttr/revenue-adequacy.aspx> and accessed on August 01, 2011.

Profitability

Table 8-18 FTR profits by organization type and FTR direction: January through June 2011
(See 2010 SOM, Table 8-23)

Organization Type	FTR Direction		All
	Prevailing Flow	Counter Flow	
Physical	\$243,438,231	\$3,587,350	\$247,025,581
Financial	\$40,872,264	\$62,813,556	\$103,685,820
Total	\$284,310,495	\$66,400,906	\$350,711,401

Table 8-19 Monthly FTR profits by organization type: January through June 2011 (See 2010 SOM, Table 8-24)

Month	Organization Type		Total
	Physical	Financial	
Jan	\$136,852,655	\$35,473,797	\$172,326,451
Feb	\$39,005,792	\$6,909,551	\$45,915,343
Mar	(\$12,240,829)	\$12,388,303	\$147,474
Apr	\$12,840,870	\$13,847,760	\$26,688,630
May	\$15,730,508	\$9,126,571	\$24,857,079
Jun	\$54,836,585	\$25,939,839	\$80,776,424
Total	\$247,025,581	\$103,685,820	\$350,711,401

Auction Revenue Rights

Market Structure

Supply

Incremental ARR

Table 8-20 Incremental ARR allocation volume: Planning periods 2008 to 2009 through 2011 to 2012 (See 2010 SOM, Table 8-25)

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%
2010/2011	14	531	531	100%	0	0%
2011/2012	13	79	79	100%	0	0%

Incremental ARRs (IARRs) for RTEP Upgrades

Table 8-21 IARRs allocated for 2011 to 2012 Annual ARR Allocation for RTEP upgrades⁶ (See 2010 SOM, Table 8-26)

Project #	Project Description	IARR Parameters		
		Source	Sink	Total MW
B0287	Install 600 MVAR Dynamic Reactive Device at Elroy 500kV	RTEP B0287 Source	DPL	185.2
B0328	TrAIL Project: 502 JCT - Loudoun 500 kV	RTEP B0328 Source	Pepco	388.8
B0329	Carson - Suffolk 500 kV	RTEP B0329 Source	Dominion	93.4

⁶ The definition of IARR source buses in Table 8-21 are located in the "IARRs for RTEP Upgrades for 2011/12 Planning Period" document posted on PJM's website at <http://www.pjm.com/markets-and-operations/arr/auction-user-info.aspx#AnnualARR1112>.

Table 8-22 Top 10 principal binding transmission constraints limiting the annual ARR allocation: Planning period 2011 to 2012 (See 2010 SOM, Table 8-27)

Constraint	Type	Control Zone
South Mahwah - Waldwick	Line	PSEG
East Frankfort - Crete	Line	ComEd
Crete - St. Johns Tap	Flowgate	MISO
Linden - North Ave	Line	PSEG
Bayonne - PVSC	Line	PSEG
Electric Junction - Nelson	Line	ComEd
Bayonne - Marion	Line	PSEG
Pleasant Valley - Belvidere	Line	ComEd
East Sayre - North Waverly	Line	PENELEC
Breed - Wheatland	Line	AEP

Demand

ARR Reassignment for Retail Load Switching

Table 8-23 ARRs and ARR revenue automatically reassigned for network load changes by control zone: June 1, 2009, through June 30, 2011 (See 2010 SOM, Table 8-28)

Control Zone	ARRs Reassigned (MW)		ARR Revenue Reassigned [Dollars (Thousands)]	
	2010/2011 (12 months)	2011/2012 (1 month)*	2010/2011 (12 months)	2011/2012 (1 month)*
AECO	887	118	\$6.0	\$1.1
AEP	961	475	\$21.4	\$9.4
AP	4,992	461	\$481.1	\$25.3
ATSI	0	1,273	\$0.0	\$6.6
BGE	3,359	863	\$50.5	\$14.6
ComEd	3,064	569	\$60.2	\$10.1
DAY	193	66	\$0.6	\$0.1
DLCO	1,834	376	\$8.6	\$1.2
Dominion	0	1	\$0.0	\$0.0
DPL	1,126	286	\$10.2	\$2.5
JCPL	3,490	352	\$28.8	\$2.8
Met-Ed	3,947	593	\$51.9	\$10.1
PECO	12,284	557	\$89.2	\$5.8
PENELEC	3,745	516	\$53.5	\$10.5
Pepco	2,469	468	\$27.3	\$4.6
PPL	5,734	810	\$74.4	\$8.4
PSEG	3,416	441	\$52.8	\$6.5
RECO	143	20	\$0.1	\$0.0
Total	51,645	8,243	\$1,016.5	\$119.8

* Through 30-Jun-11

Market Performance

Volume

Table 8-24 Annual ARR allocation volume: Planning periods 2010 to 2011 and 2011 to 2012 (See 2010 SOM, Table 8-29)

Planning Period	Stage	Round	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume	
2010/2011	1A	0	8,862	61,793	61,793	100.0%	0	0.0%	
	1B	1	3,885	27,850	27,850	100.0%	0	0.0%	
		2	2	1,901	15,333	4,161	27.1%	11,172	72.9%
		3		1,374	15,321	4,167	27.2%	11,154	72.8%
		4		1,247	15,317	3,872	25.3%	11,445	74.7%
		Total		4,522	45,971	12,200	26.5%	33,771	73.5%
	Total		17,269	135,614	101,843	75.1%	33,771	24.9%	
2011/2012	1A	0	12,654	64,160	64,160	100.0%	0	0.0%	
	1B	1	7,660	27,325	22,208	81.3%	5,117	18.7%	
		2	2	3,498	20,321	3,072	15.1%	17,249	84.9%
		3		2,593	18,538	6,653	35.9%	11,885	64.1%
		4		2,080	18,194	6,383	35.1%	11,811	64.9%
		Total		8,171	57,053	16,108	28.2%	40,945	71.8%
	Total		28,485	148,538	102,476	69.0%	46,062	31.0%	

Table 8-25 Table 8-25 ARR volume for ATSI Control Zone: 2011 to 2012 planning period⁷ (New Table)

Planning Period	Bid and Requested Count	Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
2011/2012	1,309	5,434	2,770	51%	2,663	49%

Table 8-26 Direct allocation of FTR volume for ATSI Control Zone: 2011 to 2012 planning period⁸ (New Table)

Planning Period	Bid and Requested Count	Bid and Requested Volume (MW)	Cleared Volume (MW)	Cleared Volume	Uncleared Volume (MW)	Uncleared Volume
2011/2012	114	7,750	4,189	54%	3,561	46%

⁷ The 2011 to 2012 ARR volume data in Table 8-25 are included in the 2011 to 2012 ARR allocation data in Table 8-24.

⁸ The 2011 to 2012 directly allocated FTR volume data in Table 8-26 are not included in ARR allocation data in Table 8-24.

Revenue Adequacy

Table 8-27 ARR revenue adequacy (Dollars (Millions)): Planning periods 2010 to 2011 and 2011 to 2012⁹ (See 2010 SOM, Table 8-30)

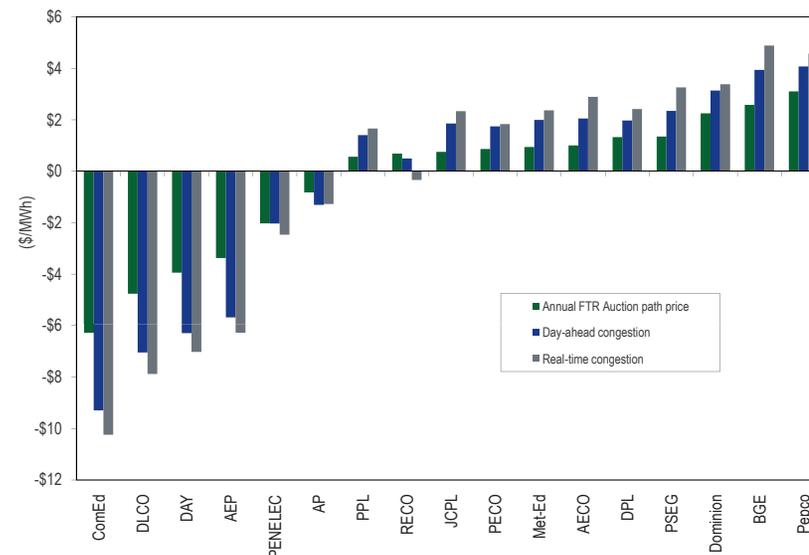
	2010/2011	2011/2012
Total FTR auction net revenue	\$1,097.8	\$1,070.8
Long Term FTR Auction net revenue	\$23.5	\$35.9
Annual FTR Auction net revenue	\$1,049.8	\$1,029.6
Monthly Balance of Planning Period FTR Auction net revenue*	\$24.5	\$5.3
ARR target allocations	\$1,029.3	\$982.9
ARR credits	\$1,029.3	\$982.9
Surplus auction revenue	\$68.5	\$87.9
ARR payout ratio	100%	100%
FTR payout ratio*	84.9%	86.9%

* Shows twelve months for 2010/2011 and one month ended 30-Jun-11 for 2011/2012

ARR and FTR Revenue and Congestion

FTR Prices and Zonal Price Differences

Figure 8-9 Annual FTR Auction prices vs. average day-ahead and real-time congestion for all control zones relative to the Western Hub: Planning period 2010 to 2011 (See 2010 SOM, Figure 8-12)



⁹ Table 8-26 has been updated from prior *State of the Market Reports* to include the net revenue for applicable FTRs from the Long Term FTR Auctions.

Effectiveness of ARRs as a Hedge against Congestion

Table 8-28 ARR and self scheduled FTR congestion hedging by control zone: Planning period 2010 to 2011 (See 2010 SOM, Table 8-31)

Control Zone	ARR Credits	Self-Scheduled FTR Credits	Total Revenue	Congestion	Total Revenue - Congestion Difference	Percent Hedged
AECO	\$5,622,487	\$1,341,364	\$6,963,851	\$46,138,832	(\$39,174,981)	15.1%
AEP	\$8,853,266	\$158,320,173	\$167,173,439	\$215,795,577	(\$48,622,138)	77.5%
AP	\$35,547,112	\$309,221,148	\$344,768,260	\$96,780,725	\$247,987,535	>100%
BGE	\$29,986,713	\$4,693,417	\$34,680,130	\$51,601,965	(\$16,921,835)	67.2%
ComEd	\$82,312,055	\$11,644,724	\$93,956,779	(\$273,848,870)	\$367,805,649	>100%
DAY	\$3,657,086	\$2,455,028	\$6,112,114	\$12,437,782	(\$6,325,668)	49.1%
DLCO	\$5,052,309	\$0	\$5,052,309	\$40,366,159	(\$35,313,850)	12.5%
Dominion	\$4,991,988	\$218,206,431	\$223,198,419	\$18,203,016	\$204,995,403	>100%
DPL	\$11,862,147	\$1,708,372	\$13,570,519	\$68,190,323	(\$54,619,804)	19.9%
JCPL	\$15,966,799	\$3,571,964	\$19,538,763	\$72,165,600	(\$52,626,838)	27.1%
Met-Ed	\$13,272,652	\$838,299	\$14,110,951	\$31,052,881	(\$16,941,930)	45.4%
PECO	\$1,707,188	\$41,262,780	\$42,969,968	(\$42,254,021)	\$85,223,989	>100%
PENELEC	\$23,696,177	\$15,535	\$23,711,712	\$62,766,815	(\$39,055,103)	37.8%
Pepco	\$20,673,905	\$2,124,638	\$22,798,543	\$169,027,354	(\$146,228,811)	13.5%
PJM	\$17,922,362	\$3,843,243	\$21,765,605	\$23,849,999	(\$2,084,394)	91.3%
PPL	\$20,247,335	\$6,019,379	\$26,266,714	\$72,380,143	(\$46,113,429)	36.3%
PSEG	\$38,443,990	\$8,893,085	\$47,337,075	(\$539,242)	\$47,876,317	>100%
RECO	\$93,249	\$0	\$93,249	\$2,635,744	(\$2,542,495)	3.5%
Total	\$339,908,820	\$774,159,581	\$1,114,068,401	\$666,750,782	\$447,317,619	>100%

Effectiveness of ARRs and FTRs as a Hedge against Congestion

Table 8-29 ARR and FTR congestion hedging by control zone: Planning period 2010 to 2011 (See 2010 SOM, Table 8-32)

Control Zone	ARR Credits	FTR Credits	FTR Auction Revenue	Total ARR and FTR Hedge	Congestion	Total Hedge - Congestion Difference	Percent Hedged
AECO	\$6,095,482	\$15,369,427	\$8,369,233	\$13,095,676	\$34,133,780	(\$21,038,104)	38.4%
AEP	\$194,446,396	\$194,755,239	\$191,918,504	\$197,283,131	\$167,295,357	\$29,987,774	>100%
AP	\$308,392,416	\$323,835,972	\$266,825,862	\$365,402,526	\$273,351,660	\$92,050,866	>100%
BGE	\$33,678,997	\$76,134,111	\$47,988,958	\$61,824,150	\$84,392,555	(\$22,568,405)	73.3%
ComEd	\$91,566,097	\$104,136,386	\$81,016,392	\$114,686,091	\$266,568,467	(\$151,882,376)	43.0%
DAY	\$5,788,157	\$2,230,724	\$1,857,507	\$6,161,374	\$5,375,791	\$785,583	>100%
DLCO	\$5,052,309	\$4,346,220	(\$4,464,852)	\$13,863,381	\$22,358,730	(\$8,495,349)	62.0%
Dominion	\$176,257,284	\$255,520,037	\$183,744,233	\$248,033,088	\$272,614,395	(\$24,581,307)	91.0%
DPL	\$12,954,039	\$28,026,874	\$21,098,243	\$19,882,670	\$53,869,497	(\$33,986,827)	36.9%
JCPL	\$18,916,958	\$50,117,839	\$22,815,912	\$46,218,885	\$63,092,857	(\$16,873,972)	73.3%
Met-Ed	\$13,935,697	\$18,999,152	\$8,123,142	\$24,811,707	\$3,280,705	\$21,531,002	>100%
PECO	\$23,365,352	\$62,435,534	\$30,955,754	\$54,845,132	(\$4,700,458)	\$59,545,590	>100%
PENELEC	\$23,704,470	\$61,092,943	\$30,722,601	\$54,074,812	\$91,243,496	(\$37,168,684)	59.3%
Pepco	\$22,895,504	\$126,441,016	\$124,122,872	\$25,213,648	\$92,418,233	(\$67,204,585)	27.3%
PJM	\$22,409,320	(\$4,729,082)	(\$7,470,423)	\$25,150,661	(\$15,392,423)	\$40,543,084	>100%
PPL	\$27,383,200	\$29,872,099	\$17,810,715	\$39,444,584	\$1,334,287	\$38,110,297	>100%
PSEG	\$44,042,817	\$86,747,606	\$73,682,375	\$57,108,048	(\$4,826,603)	\$61,934,651	>100%
RECO	\$93,249	(\$2,243,107)	(\$1,299,731)	(\$850,127)	\$3,487,598	(\$4,337,725)	0.0%
Total	\$1,030,977,744	\$1,433,088,991	\$1,097,817,297	\$1,366,249,438	\$1,409,897,924	(\$43,648,486)	96.9%

Table 8-30 ARR and FTR congestion hedging: Planning periods 2009 to 2010 and 2010 to 2011¹⁰ (See 2010 SOM, Table 8-33)

Planning Period	ARR Credits	FTR Credits	FTR Auction Revenue	Total ARR and FTR Hedge	Congestion	Total Hedge - Congestion Difference	Percent Hedged
2009/2010	\$1,274,578,024	\$879,837,129	\$1,368,743,667	\$785,671,486	\$816,996,460	(\$31,324,974)	96.2%
2010/2011	\$1,030,977,744	\$1,433,088,990	\$1,097,817,297	\$1,366,249,437	\$1,409,897,924	(\$43,648,487)	96.9%

ARRs and FTRs as a Hedge against Total Real Time Energy Charges

Table 8-31 ARRs and FTRs as a hedge against energy charges by control zone: January through June 2011 (See 2010 SOM, Table 8-34)

Control Zone	ARR Related Hedge (Including Self-Scheduled FTRs)	FTR Hedge (Excluding Self-Scheduled FTRs)	Total ARR and FTR Hedge	Total Energy Charges	Percent of Energy Charges Covered by ARR and FTR Credits
AECO	\$3,560,203	\$3,092,518	\$6,652,720	\$287,023,900	2.3%
AEP	\$78,607,670	\$29,208,781	\$107,816,451	\$2,780,998,492	3.9%
AP	\$117,215,427	\$10,543,295	\$127,758,722	\$1,118,482,832	11.4%
ATSI	\$1,024,101	\$2,336,756	\$3,360,857	\$259,636,298	1.3%
BGE	\$17,177,996	(\$6,182,300)	\$10,995,696	\$936,666,014	1.2%
ComEd	\$48,751,974	\$7,364,004	\$56,115,978	\$1,761,949,470	3.2%
DAY	\$2,667,065	\$262,715	\$2,929,780	\$346,233,992	0.8%
DLCO	\$2,381,157	\$1,774,089	\$4,155,247	\$300,163,013	1.4%
Dominion	\$75,718,693	\$8,012,216	\$83,730,909	\$2,533,143,836	3.3%
DPL	\$6,472,997	(\$1,152,860)	\$5,320,137	\$502,331,377	1.1%
JCPL	\$8,611,894	\$10,764,043	\$19,375,937	\$625,710,190	3.1%
Met-Ed	\$6,935,438	(\$451,950)	\$6,483,488	\$398,440,111	1.6%
PECO	\$22,832,202	\$6,535,357	\$29,367,559	\$1,087,458,820	2.7%
PENELEC	\$11,801,550	\$2,698,715	\$14,500,265	\$412,323,528	3.5%
Pepco	\$13,833,821	(\$10,978,016)	\$2,855,805	\$874,301,061	0.3%
PJM	\$9,933,241	\$234,915	\$10,168,155	NA	NA
PPL	\$11,127,993	\$16,037,077	\$27,165,071	\$1,101,844,442	2.5%
PSEG	\$25,061,875	\$4,832,808	\$29,894,684	\$1,204,709,540	2.5%
RECO	(\$13,676)	(\$613,717)	(\$627,393)	\$36,599,726	(1.7%)
Total	\$463,701,621	\$84,318,448	\$548,020,069	\$16,592,328,459	3.3%

¹⁰ The FTR credits do not include after-the-fact adjustments. For the 2010 to 2011 planning period, the ARR credits were the total credits allocated to all ARR holders for the full twelve months (June 2010 through May 2011) of this planning period, and the FTR Auction Revenue includes the net revenue in the Monthly Balance of Planning Period FTR Auctions for the full twelve months of this planning period and the portion of Annual FTR Auction revenue distributed during those twelve months.