# **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.<sup>1</sup> 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 2010 Quarterly State of the Market Report for PJM: January through September focuses on the Monthly Balance of Planning Period FTR Auctions during two FTR/ARR planning periods: the 2009 to 2010 planning

period which covers June 1, 2009, through May 31, 2010, and the 2010 to 2011 planning period which covers June 1, 2010, through May 31, 2011.

# 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 from 2009 through 2012. The second Long Term FTR Auction was conducted during the 2009 to 2010 planning period and covers the three consecutive planning periods from 2010 through 2013. The 2011 to 2014 Long Term FTR Auction results are not presented in this report because the second round results were not posted until after the end of the third guarter. 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 Auctions. 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. Market participants can also sell FTRs. In the Monthly Balance of Planning Period FTR Auctions for the first four months (June through September 2010) of the 2010 to 2011 planning period, there were 1,686,988 MW of FTR sell offers.
- **Demand.** There is no limit on FTR demand in any FTR auction. In the Monthly Balance of Planning Period FTR Auctions for the first four



<sup>1 87</sup> FERC ¶ 61,054 (1999).

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months (June through September 2010) of the 2010 to 2011 planning period, total FTR buy bids were 4,924,599 MW.

- **FTR Credit Issues.** Effective June 1, 2009, PJM implemented a number of improvements to the PJM credit management rules. There were no participant defaults during the first nine months of 2010.
  - Tower Companies Litigation and Investigation. On July ٠ 23, 2010, PJM reported that it had settled litigation brought against the Tower Companies arising from the default of their affiliate Power Edge, LLC in 2007 in Federal Court and at the FERC.<sup>2</sup> This matter concerned in part allegations that the Tower Companies "manipulated PJM's Day-ahead energy and Financial Transmission Rights (FTR) markets."3 The FERC also commenced its own independent investigation.<sup>4</sup> The Market Monitor had been scheduled to testify in the Court proceeding as a fact witness and as a non-retained or employed expert witness on the basis of the MMU's extensive non-public analysis. Under the terms of the settlement, the Tower Companies paid \$18 million in return for PJM withdrawing its civil complaint and the remainder of its complaint at the FERC related to this matter. In September 2010, the PJM Members Committee adopted and then implemented the following resolution: "The PJM Members Committee resolves to request the chair of the Members Committee to send a letter to FERC Office of Enforcement to request expeditious conclusion of the investigation of Tower affiliates in the matter of alleged improper use of virtual trades and make public the results of that investigation consistent with FERC practices and procedures."5
- Patterns of Ownership. The ownership concentration of cleared FTR buy bids resulting from the 2010 to 2011 Annual FTR Auction was low to moderate for FTR obligations and moderate to 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. Financial entities own about 63 percent of prevailing flow and 73 percent of counter flow FTRs from the January through September 2010 Monthly Balance of Planning Period Auctions. Overall, financial entities own about 68 percent of all Monthly Balance of Planning Period FTRs during the same time period.

## Market Performance

- **Volume.** For the first four months of the 2010 to 2011 planning period, the Monthly Balance of Planning Period FTR Auctions cleared 580,753 MW (11.8 percent) of FTR buy bids and 169,659 MW (10.1 percent) of FTR sell offers.
- **Price.** The weighted-average price paid for buy-bid FTRs in the Monthly Balance of Planning Period FTR Auctions for the first four months of the 2010 to 2011 planning period was \$0.20 per MWh, compared with \$0.18 per MWh in the Monthly Balance of Planning Period FTR Auctions for the full 12-month 2009 to 2010 planning period.
- Revenue. The Monthly Balance of Planning Period FTR Auctions generated \$11.1 million in net revenue for all FTRs during the first four months of the 2010 to 2011 planning period.
- **Revenue Adequacy.** FTRs were 96.9 percent revenue adequate for the 2009 to 2010 planning period. FTRs were paid at 92.1 percent of the target allocation level for the first four months of the 2010 to 2011 planning period. The months of March, April and September had the lowest payout ratios before adjustments in 2010, which were 74 percent, 69 percent and 70 percent. Congestion revenues are allocated to FTR holders based on FTR target allocations. PJM collected \$693.9 million of FTR revenues during the first four months of the 2010 to 2011 planning period and \$878.4 million during the 2009 to 2010 planning period. For the first four 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 Mount Storm aggregate, respectively. Similarly, the top sink and top source with the largest negative FTR target allocation was the Western Hub.

<sup>2</sup> See FERC Docket No. EL08-44 and the Federal Court proceedings in United States District Counts in Delaware and Pennsylvania, DE No. 08-216-JJF and Eastern Dist PA, C.A. No. 08-CV-3649-NS.

<sup>3</sup> See 127 FERC ¶61,007 at P 1 (2009).

<sup>4</sup> Id.

<sup>5</sup> See letter from Edward D. Tatum, Chair, PJM Members Committee, to Norman Bay, Director, Office of Enforcement (FERC) dated September 27, 2010, which can be accessed at <<u>http://www.pim.com/~/media/committees-groups/committees/mc/20100923/20100923/item-05-mc-chair-letter-to-ferc-oe.ashx</u>>.

#### **Auction Revenue Rights**

## Market Structure

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 11,813 MW of ARRs associated with approximately \$162,100 per MW-day of revenue that were reassigned in the first four months of the 2010 to 2011 planning period. There were 19,061 MW of ARRs associated with approximately \$362,400 per MW-day of revenue that were reassigned for the full 2009 to 2010 planning period.

## **Market Performance**

- **Revenue Adequacy.** During the 2010 to 2011 planning period, ARR holders will receive \$1,028.8 million in ARR credits, with an average hourly ARR credit of \$1.15 per MWh. During the 2010 to 2011 planning period, the ARR target allocations were \$1,028.8 million while PJM collected \$1,061 million from the combined Annual and Monthly Balance of Planning Period FTR Auctions through September 30, 2010, making ARRs revenue adequate. During the 2009 to 2010 planning period, ARR holders received \$1,273.5 million in ARR credits, with an average hourly ARR credit of \$1.33 per MWh. For the 2009 to 2010 planning period, the ARR target allocations were \$1,273.5 million while PJM collected \$1,349.3 million from the combined Annual and Monthly Balance of Planning Period FTR Auctions, making ARRs revenue adequate.
- 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

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Energy Market and the balancing energy market within PJM. For the 2009 to 2010 planning period, all ARRs and FTRs hedged 96.4 percent of the congestion costs within PJM. During the first four months of the 2010 to 2011 planning period, total ARR and FTR revenues hedged 98.2 percent of the congestion costs within PJM.

**ARRs and FTRs as a Hedge against Total Energy Costs.** The hedge provided by ARRs can also be measured by comparing the value of the ARR and self-scheduled FTRs that sink in a zone to the cost of real time energy in the zone. This is a measure of the value of the hedge against real time energy costs provided by ARRs received by loads during this period. The total value of ARRs was 3.6 percent of the total real time energy charges for January through September of 2010. The hedge provided by FTRs can also be measured by comparing the value of the FTRs that sink in a zone to the cost of real time energy in the zone. The total net value of FTRs was 0.7 percent of the total real time energy charges for January through September 2010. When combined, the sum is a measure of the total value of ARRs plus FTRs. The total value of ARRs plus FTRs was 4.3 percent of the total real time energy charges for January through September 2010.

# 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 2010 to 2011 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.

FTRs were paid at 96.9 percent of the target allocation level for the 12-month period of the 2009 to 2010 planning period, and at 92.1 percent of the target allocation level for the first four months of the 2010 to 2011 planning 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



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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.

The total of ARR and FTR revenues hedged more than 96.4 percent of the congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM for the 2009 to 2010 planning period and 98.2 percent of the congestion costs in PJM during the first four months of 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 FTR holders, their revenues or those paying congestion.

### **Financial Transmission Rights**

## Patterns of Ownership

 Table 8-1
 Monthly Balance of Planning Period FTR Auction patterns of ownership by FTR direction: January through September 2010 (See 2009 SOM Table 8-5)

	FTR Direction					
Organization Type	Prevailing Flow	Counter Flow	All			
Physical	36.6%	26.6%	32.3%			
Financial	63.4%	73.4%	67.7%			
Total	100.0%	100.0%	100.0%			

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## **Market Performance**

## Volume

Table 8-2 Monthly Balance of Planning Period FTR Auction market volume: January through September 2010 (See 2009 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-10	Obligations	Buy bids	156,274	716,812	79,724	11.1%	637,088	88.9%
		Sell offers	46,206	165,858	11,224	6.8%	154,635	93.2%
	Options	Buy bids	391	11,953	1,621	13.6%	10,332	86.4%
		Sell offers	1,579	33,020	5,686	17.2%	27,334	82.8%
Feb-10	Obligations	Buy bids	129,946	656,279	78,354	11.9%	577,925	88.1%
		Sell offers	40,605	146,757	10,364	7.1%	136,393	92.9%
	Options	Buy bids	622	13,993	1,119	8.0%	12,874	92.0%
		Sell offers	1,702	33,125	6,955	21.0%	26,170	79.0%
Mar-10	Obligations	Buy bids	120,727	607,270	90,189	14.9%	517,081	85.1%
		Sell offers	56,858	201,797	12,542	6.2%	189,255	93.8%
	Options	Buy bids	331	8,420	749	8.9%	7,672	91.1%
		Sell offers	1,224	23,960	5,326	22.2%	18,634	77.8%
Apr-10	Obligations	Buy bids	104,078	483,995	78,853	16.3%	405,142	83.7%
		Sell offers	30,097	127,238	9,844	7.7%	117,394	92.3%
	Options	Buy bids	185	5,643	481	8.5%	5,161	91.5%
		Sell offers	980	17,098	3,474	20.3%	13,625	79.7%
May-10	Obligations	Buy bids	83,069	372,583	63,260	17.0%	309,323	83.0%
		Sell offers	16,709	74,617	8,385	11.2%	66,233	88.8%
	Options	Buy bids	396	3,229	209	6.5%	3,020	93.5%
		Sell offers	623	9,657	3,049	31.6%	6,609	68.4%
Jun-10	Obligations	Buy bids	204,305	998,923	107,676	10.8%	891,247	89.2%
		Sell offers	94,433	417,735	24,228	5.8%	393,507	94.2%
	Options	Buy bids	1,725	66,735	2,932	4.4%	63,804	95.6%
		Sell offers	11,073	69,691	15,816	22.7%	53,874	77.3%
Jul-10	Obligations	Buy bids	225,737	1,108,721	146,069	13.2%	962,652	86.8%
		Sell offers	75,886	359,722	29,406	8.2%	330,316	91.8%
	Options	Buy bids	878	37,271	2,304	6.2%	34,967	93.8%
		Sell offers	8,089	66,097	16,084	24.3%	50,013	75.7%



### Table 8-2 Monthly Balance of Planning Period FTR Auction market volume: January through September 2010 (See 2009 SOM Table 8-9) [continued]

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
Aug-10	Obligations	Buy bids	222,224	1,118,261	126,436	11.3%	991,825	88.7%
		Sell offers	65,197	300,616	23,910	8.0%	276,706	92.0%
	Options	Buy bids	2,532	83,876	4,233	5.0%	79,643	95.0%
		Sell offers	6,321	42,262	13,534	32.0%	28,728	68.0%
Sep-10	Obligations	Buy bids	232,043	1,282,913	185,736	14.5%	1,097,177	85.5%
		Sell offers	76,919	364,793	31,628	8.7%	333,165	91.3%
	Options	Buy bids	1,681	227,899	5,366	2.4%	222,533	97.6%
		Sell offers	8,339	66,072	15,052	22.8%	51,020	77.2%
2009/2010*	Obligations	Buy bids	1,908,766	8,003,573	946,107	11.8%	7,057,466	88.2%
		Sell offers	649,057	2,337,381	181,810	7.8%	2,155,571	92.2%
	Options	Buy bids	4,904	216,423	17,194	7.9%	199,228	92.1%
		Sell offers	29,328	458,584	72,335	15.8%	386,248	84.2%
2010/2011**	Obligations	Buy bids	884,309	4,508,818	565,918	12.6%	3,942,900	87.4%
		Sell offers	312,435	1,442,866	109,172	7.6%	1,333,694	92.4%
	Options	Buy bids	6,816	415,781	14,835	3.6%	400,946	96.4%
		Sell offers	33,822	244,122	60,487	24.8%	183,636	75.2%

\* Shows Twelve Months for 2009/2010; \*\* Shows four months ended 30-Sep-2010 for 2010/2011

Table 8-3 Monthly Balance of Planning Period FTR Auction buy-bid bid and cleared volume (MW per period): January through September 2010 (See 2009 SOM Table 8-10)

Monthly Auction	MW Type	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-10	Bid	393,426	127,235	90,338				117,766	728,765
	Cleared	55,053	10,039	5,963				10,290	81,345
Feb-10	Bid	363,548	100,591	91,281				114,853	670,272
	Cleared	53,791	9,948	6,304				9,430	79,473
Mar-10	Bid	374,155	108,329	106,100				27,107	615,690
	Cleared	66,677	10,555	9,864				3,842	90,938
Apr-10	Bid	366,026	123,612						489,638
	Cleared	67,471	11,863						79,334
May-10	Bid	375,812							375,812
	Cleared	63,469							63,469
Jun-10	Bid	398,343	134,107	127,474	27,614	129,012	126,849	122,260	1,065,658
	Cleared	65,245	9,590	9,386	2,996	10,408	7,927	5,054	110,608
Jul-10	Bid	529,368	142,953	88,144		129,524	130,924	125,079	1,145,991
	Cleared	86,820	15,281	8,068		13,336	12,559	12,309	148,373
Aug-10	Bid	566,562	113,783	102,176		130,975	140,738	147,904	1,202,137
	Cleared	76,858	10,504	9,822		8,898	11,734	12,854	130,669
Sep-10	Bid	618,218	186,274	173,686		96,649	215,233	220,752	1,510,812
	Cleared	117,485	18,384	18,820		6,981	13,593	15,840	191,103



Table 8-4 Secondary bilateral FTR market volume: Planning periods 2009 to 2010 and 2010 to 2011<sup>6</sup> (See 2009 SOM Table 8-11)

Planning Period	Hedge Type	Class Type	Volume (MW)	Price
2009/2010	Obligation	24-Hour	1,468	\$0.38
		On Peak	3,544	(\$0.01)
		Off Peak	3,798	(\$0.06)
		Total	8,810	\$0.31
	Option	24-Hour	30	\$5.93
		On Peak	0	NA
		Off Peak	0	NA
		Total	30	\$5.93
2010/2011*	Obligation	24-Hour	1,562	\$0.06
		On Peak	9,740	\$0.00
		Off Peak	12,133	\$0.00
		Total	23,434	\$0.03
	Option	24-Hour	20	\$0.40
		On Peak	0	NA
		Off Peak	0	NA
		Total	20	\$0.40

\* Shows four months ended 30-Sep-2010

#### Price

Table 8-5 Monthly Balance of Planning Period FTR Auction cleared, weighted-average, buy-bid price per period (Dollars per MWh): January through September 2010 (See 2009 SOM Table 8-14)

Monthly Auction	Current Month	Second Month	Third Month	Q1	Q2	Q3	Q4	Total
Jan-10	\$0.09	\$0.34	(\$0.01)	<u> </u>	~-		\$0.16	\$0.13
Feb-10	\$0.09	\$0.31	\$0.17				\$0.31	\$0.19
Mar-10	\$0.14	\$0.30	\$0.34				(\$0.07)	\$0.15
Apr-10	\$0.10	\$0.24						\$0.12
May-10	\$0.06							\$0.06
Jun-10	\$0.11	\$0.36	\$0.35	\$0.80	\$0.33	\$0.40	\$0.37	\$0.29
Jul-10	\$0.14	\$0.46	\$0.04		\$0.19	\$0.16	\$0.15	\$0.17
Aug-10	\$0.19	\$0.36	\$0.18		\$0.20	\$0.35	\$0.13	\$0.22
Sep-10	\$0.13	\$0.17	\$0.15		\$0.09	\$0.20	\$0.14	\$0.14

6 The 2010 to 2011 planning period covers the 2010 to 2011 Annual FTR Auction and the Monthly Balance of Planning Period FTR Auctions through September 30, 2010.

## Revenue

## Monthly Balance of Planning Period FTR Auction Revenue

#### Table 8-6 Monthly Balance of Planning Period FTR Auction revenue: January through September 2010 (See 2009 SOM Table 8-17)

				Class Type		
Monthly Auction	Hedge Type	Trade Type	24-Hour	On Peak	Off Peak	All
Jan-10	Obligations	Buy bids	(\$358,507)	\$3,027,607	\$1,763,504	\$4,432,604
		Sell offers	\$383,960	\$1,556,699	\$561,863	\$2,502,522
	Options	Buy bids	NA	\$341,524	\$118,211	\$459,735
		Sell offers	\$83,413	\$542,599	\$261,153	\$887,164
Feb-10	Obligations	Buy bids	\$530,509	\$2,872,273	\$2,657,432	\$6,060,214
		Sell offers	(\$116,080)	\$1,524,315	\$1,983,143	\$3,391,378
	Options	Buy bids	\$0	\$241,692	\$234,325	\$476,018
		Sell offers	\$8,606	\$825,079	\$709,563	\$1,543,248
Mar-10	Obligations	Buy bids	(\$549,382)	\$4,005,065	\$2,109,386	\$5,565,069
		Sell offers	\$565,634	\$1,299,894	\$578,118	\$2,443,646
	Options	Buy bids	\$972	\$27,948	\$25,433	\$54,353
		Sell offers	\$80,862	\$900,428	\$434,215	\$1,415,505
Apr-10	Obligations	Buy bids	(\$455,673)	\$1,949,169	\$1,914,146	\$3,407,643
		Sell offers	\$411,821	\$303,177	\$711,735	\$1,426,734
	Options	Buy bids	NA	\$31,664	\$7,685	\$39,348
		Sell offers	\$397	\$619,455	\$222,426	\$842,278
May-10	Obligations	Buy bids	(\$174,016)	\$796,256	\$742,930	\$1,365,170
		Sell offers	\$55,656	\$98,700	\$324,803	\$479,159
	Options	Buy bids	NA	\$38,754	\$2,044	\$40,798
		Sell offers	\$30	\$400,162	\$143,440	\$543,632
Jun-10	Obligations	Buy bids	\$3,248,555	\$8,066,567	\$6,097,873	\$17,412,995
		Sell offers	\$953,733	\$3,876,255	\$3,725,334	\$8,555,322
	Options	Buy bids	\$5,802	\$158,851	\$116,761	\$281,415
		Sell offers	\$16,839	\$4,265,630	\$2,393,988	\$6,676,457
Jul-10	Obligations	Buy bids	(\$524,716)	\$8,542,586	\$5,945,266	\$13,963,136
		Sell offers	\$6,087	\$2,569,941	\$1,806,154	\$4,382,181
	Options	Buy bids	\$17,289	\$270,145	\$135,568	\$423,002
		Sell offers	\$1,672,986	\$2,791,024	\$2,166,674	\$6,630,683



Table 8-6 Monthly Balance of Planning Period FTR Auction revenue: January through September 2010 (See 2009 SOM Table 8-17) [continued]

				Class Type		
Monthly Auction	Hedge Type	Trade Type	24-Hour	On Peak	Off Peak	All
Aug-10	Obligations	Buy bids	\$1,995,876	\$8,489,218	\$5,226,059	\$15,711,153
		Sell offers	\$78,088	\$6,252,007	\$3,227,745	\$9,557,840
	Options	Buy bids	\$0	\$197,801	\$157,086	\$354,887
		Sell offers	\$30,431	\$1,626,257	\$1,836,640	\$3,493,328
Sep-10	Obligations	Buy bids	\$590,917	\$6,987,726	\$5,639,454	\$13,218,098
		Sell offers	\$135,907	\$3,907,689	\$2,637,138	\$6,680,733
	Options	Buy bids	\$0	\$333,742	\$312,661	\$646,403
		Sell offers	\$123,445	\$1,921,160	\$2,853,356	\$4,897,961
2009/2010*	Obligations	Buy bids	(\$121,010)	\$45,775,003	\$33,593,366	\$79,247,359
		Sell offers	\$3,920,764	\$21,760,177	\$17,779,192	\$43,460,133
	Options	Buy bids	\$98,620	\$1,940,920	\$834,871	\$2,874,411
		Sell offers	\$263,053	\$11,631,451	\$7,274,458	\$19,168,962
2010/2011**	Obligations	Buy bids	\$5,310,632	\$32,086,097	\$22,908,652	\$60,305,381
		Sell offers	\$1,173,815	\$16,605,891	\$11,396,370	\$29,176,076
	Options	Buy bids	\$23,091	\$960,540	\$722,076	\$1,705,707
		Sell offers	\$1,843,701	\$10,604,071	\$9,250,658	\$21,698,429

\* Shows twelve months for 2009/2010; \*\* Shows four months ended 30-Sep-2010 for 2010/2011



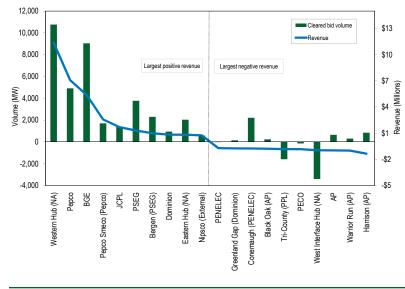
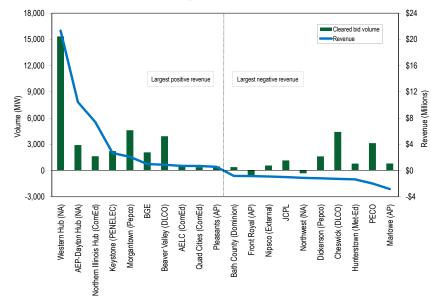


Figure 8-2 Ten largest positive and negative revenue producing FTR sources purchased in the Monthly Balance of Planning Period FTR Auctions: Planning period 2010 to 2011 through September 30, 2010 (See 2009 SOM Figure 8-8)



# **Revenue Adequacy**

Table 8-7 Total annual PJM FTR revenue detail (Dollars (Millions)): Planning periods 2009 to 2010 and 2010 to 2011 (See 2009 SOM Table 8-18)

Accounting Element	2009/2010	2010/2011*
ARR information		
ARR target allocations	\$1,276.9	\$344.0
FTR auction revenue	\$1,368.7	\$365.4
ARR excess	\$91.9	\$21.3
FTR targets		
FTR target allocations	\$908.1	\$754.3
Adjustments:		
Adjustments to FTR target allocations	(\$1.5)	(\$0.5
Total FTR targets	\$906.6	\$196.4
FTR revenues		
ARR excess	\$91.9	\$21.3
Competing uses	\$0.0	\$0.0
Congestions		
Net Negative Congestion (enter as negative)	(\$37.8)	(\$7.9
Hourly congestion revenue	\$854.9	\$691.0
Midwest ISO M2M (credit to PJM minus credit to Midwest ISO)	(\$31.0)	(\$10.0
Consolidated Edison Company of New York and Public Service Electric and Gas Company Wheel (CEPSW) congestion credit to Con Edison (enter as negative)	(\$2.0)	(\$0.5
Adjustments:		
Excess revenues carried forward into future months	\$27.3	\$0.0
Excess revenues distributed back to previous months	\$9.2	\$1.8
Other adjustments to FTR revenues	\$2.4	(\$0.0
Total FTR revenues	\$923.5	(\$0.0)
Excess revenues distributed to other months	(\$45.1)	(\$1.8
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	\$878.4	\$693.9
Total congestion credits on bill (includes CEPSW and end-of-year distribution)	\$880.3	\$694.4
Remaining deficiency	\$28.3	\$59.9

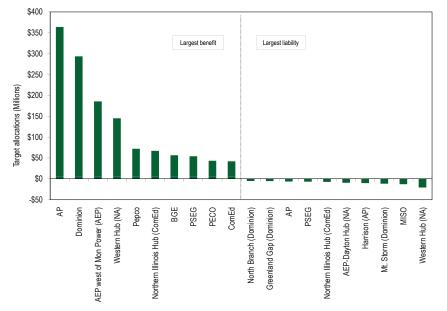
\* Shows four months ended 30-Sep-10



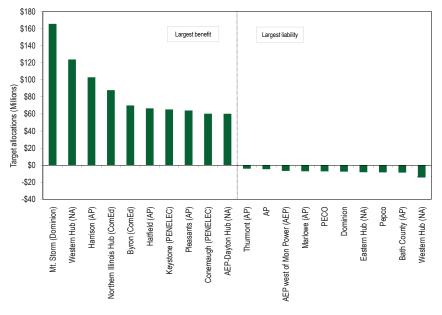
Table 8-8 Monthly FTR accounting summary (Dollars (Millions)): Planning periods 2009 to 2010 and 2010 to 2011 (See 2009 SOM Table 8-19)

Period	FTR Revenues (with adjustments)	FTR Target Allocations	FTR Payout Ratio (original)	FTR Credits (with adjustments)	FTR Payout Ratio (with adjustments)	Credits Deficiency (with adjustments)	Credits Excess (with adjustments)
Jun-09	\$54.6	\$43.9	100.0%	\$43.9	100.0%	\$0.0	\$0.0
Jul-09	\$53.2	\$40.4	100.0%	\$40.4	100.0%	\$0.0	\$0.0
Aug-09	\$92.4	\$92.4	81.3%	\$92.4	100.0%	\$0.0	\$0.0
Sep-09	\$31.4	\$31.4	87.4%	\$31.4	100.0%	\$0.0	\$0.0
Oct-09	\$57.8	\$57.8	83.4%	\$57.8	100.0%	\$0.0	\$0.0
Nov-09	\$38.2	\$37.9	100.0%	\$37.9	100.0%	\$0.0	\$0.0
Dec-09	\$101.9	\$93.7	100.0%	\$93.7	100.0%	\$0.0	\$0.0
Jan-10	\$223.7	\$213.0	100.0%	\$213.0	100.0%	\$0.0	\$0.0
Feb-10	\$113.3	\$111.0	100.0%	\$111.0	100.0%	\$0.0	\$0.0
Mar-10	\$29.0	\$35.8	73.9%	\$29.0	81.1%	\$6.8	\$0.0
Apr-10	\$47.7	\$68.5	69.3%	\$47.7	69.7%	\$20.8	\$0.0
May-10	\$80.2	\$80.9	99.1%	\$80.2	99.1%	\$0.7	\$0.0
			Summary for	or Planning Period 2009 to 20	10		
Total		\$906.6		\$878.4	96.9%	\$28.3	\$0.0
Jun-10	\$193.9	\$196.1	97.8%	\$193.9	98.9%	\$2.2	\$0.0
Jul-10	\$274.8	\$273.0	100.0%	\$273.0	100.0%	\$0.0	\$0.0
Aug-10	\$111.1	\$119.2	93.2%	\$111.1	93.2%	\$8.1	\$0.0
Sep-10	\$115.9	\$165.5	70.0%	\$115.9	70.0%	\$49.6	\$0.0
		S	ummary for Planning Pe	riod 2010 to 2011 through Sep	tember 30, 2010		
Total		\$753.8		\$693.9	92.1%	\$59.9	\$0.0

# Figure 8-3 Ten largest positive and negative FTR target allocations summed by sink: Planning period 2010 to 2011 through September 30, 2010 (See 2009 SOM Figure 8-9)







# Auction Revenue Rights

# **Market Structure**

# ARR Reassignment for Retail Load Switching

Table 8-9 ARRs and ARR revenue automatically reassigned for network load changes by control zone: June 1, 2009, through September 30, 2010 (See 2009 SOM Table 8-22)

	ARRs Reas (MW-d			ARR Revenue Reassigned [Dollars (Thousands) per MW-day]		
Control Zone	2009/2010 (12 months)	2010/2011 (4 months)*	2009/2010 (12 months)	2010/2011 (4 months)*		
AECO	417	499	\$7.6	\$2.6		
AEP	268	181	\$6.3	\$3.7		
AP	629	414	\$77.2	\$40.2		
BGE	2,992	2,036	\$62.9	\$27.7		
ComEd	3,145	1,188	\$10.2	\$12.6		
DAY	21	62	\$0.1	\$0.2		
DLCO	371	119	\$1.0	\$0.7		
Dominion	0	0	\$0.0	\$0.0		
DPL	952	616	\$10.9	\$4.7		
JCPL	1,151	1,450	\$17.7	\$12.5		
Met-Ed	33	147	\$0.8	\$1.9		
PECO	29	16	\$0.5	\$0.2		
PENELEC	8	21	\$0.2	\$0.3		
Рерсо	2,511	1,324	\$25.6	\$13.0		
PPL	4,489	1,343	\$91.4	\$13.3		
PSEG	1,984	2,305	\$50.0	\$28.4		
RECO	62	92	\$0.0	\$0.0		
Total	19,061	11,813	\$362.4	\$162.1		

\* Through 30-Sep-10



# FINANCIAL TRANSMISSION AND AUCTION REVENUE RIGHTS

## **Market Performance**

**Revenue Adequacy** 

# ARR and FTR Revenue and Congestion

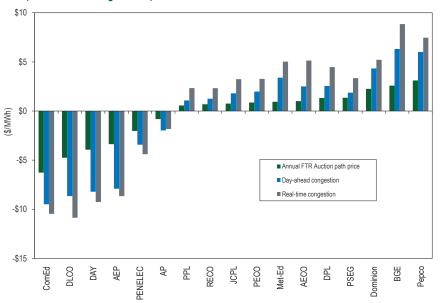
#### FTR Prices and Zonal Price Differences

# Table 8-10ARR revenue adequacy (Dollars (Millions)): Planning periods 2009 to 2010 and 2010to 2011 (See 2009 SOM Table 8-24)

2009/2010	2010/2011
\$1,349.3	\$1,061.0
\$1,329.8	\$1,049.8
\$19.5	\$11.1
\$1,273.5	\$1,028.8
\$1,273.5	\$1,028.8
\$75.8	\$32.2
100%	100%
96.9%	92.1%
	\$1,349.3 \$1,329.8 \$19.5 \$1,273.5 \$1,273.5 \$75.8 100%

\* Shows twelve months for 2009/2010 and four months ended 30-Sep-10 for 2010/2011

Figure 8-5 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 through September 30, 2010 (See 2009 SOM Figure 8-11)



## Effectiveness of ARRs as a Hedge against Congestion

Table 8-11 ARR and self scheduled FTR congestion hedging by control zone: Planning period 2010 to 2011 through September 30, 2010 (See 2009 SOM Table 8-25)

Control Zone	ARR Credits	Self-Scheduled FTR Credits	Total Revenue	Congestion	- Total Revenue Congestion Difference	Percent Hedged
AECO	\$5,616,622	\$861,406	\$6,478,028	\$25,585,204	(\$19,107,176)	25.3%
AEP	\$8,607,860	\$47,721,396	\$56,329,256	\$120,649,410	(\$64,320,154)	46.7%
AP	\$35,547,112	\$160,166,470	\$195,713,582	\$45,623,155	\$150,090,427	>100%
BGE	\$29,986,713	\$2,574,536	\$32,561,249	\$45,414,303	(\$12,853,054)	71.7%
ComEd	\$82,312,055	\$5,126,016	\$87,438,071	(\$184,121,952)	\$271,560,023	>100%
DAY	\$3,657,086	\$1,131,142	\$4,788,228	\$12,602,830	(\$7,814,602)	38.0%
DLCO	\$5,052,309	\$0	\$5,052,309	\$16,650,746	(\$11,598,437)	30.3%
Dominion	\$4,992,312	\$110,534,859	\$115,527,171	(\$6,092,800)	\$121,619,972	>100%
DPL	\$11,521,197	\$1,121,441	\$12,642,638	\$35,046,963	(\$22,404,325)	36.1%
JCPL	\$15,996,256	\$2,109,977	\$18,106,233	\$37,873,573	(\$19,767,340)	47.8%
Met-Ed	\$13,272,652	\$742,384	\$14,015,036	\$27,765,700	(\$13,750,664)	50.5%
PECO	\$1,707,188	\$18,808,093	\$20,515,281	\$825,164	\$19,690,117	>100%
PENELEC	\$23,696,177	\$6,265	\$23,702,442	\$30,359,891	(\$6,657,449)	78.1%
Рерсо	\$20,673,905	\$1,597,096	\$22,271,001	\$83,054,556	(\$60,783,554)	26.8%
PJM	\$17,922,362	\$1,360,316	\$19,282,678	\$12,986,687	\$6,295,992	>100%
PPL	\$20,247,335	\$4,900,404	\$25,147,739	\$45,732,838	(\$20,585,099)	55.0%
PSEG	\$38,443,453	\$2,963,696	\$41,407,149	\$16,925,647	\$24,481,502	>100%
RECO	\$93,249	\$0	\$93,249	\$1,466,351	(\$1,373,102)	6.4%
Total	\$339,345,843	\$361,725,497	\$701,071,340	\$368,348,263	\$332,723,077	>100%



#### Effectiveness of FTRs as a Hedge against Congestion

#### Table 8-12 FTR congestion hedging by control zone: Planning period 2010 to 2011 through September 30, 2010 (See 2009 SOM Table 8-26)

Control Zone	FTR Direction	FTR Credits	FTR Auction Revenue	FTR Hedge	Congestion	FTR Hedge - Congestion Difference	Percent Hedged
AECO	Counter Flow	(\$902,870)	(\$1,162,228)	\$181,487			
	Prevailing Flow	\$10,403,730	\$7,684,048	\$3,616,984			
	Total	\$9,500,860	\$6,521,820	\$3,798,471	\$18,244,997	(\$14,446,525)	20.8%
AEP	Counter Flow	(\$6,877,950)	(\$12,043,615)	\$4,572,455			
	Prevailing Flow	\$56,624,124	\$210,293,017	(\$148,785,171)			
	Total	\$49,746,174	\$198,249,402	(\$144,212,715)	\$61,069,182	(\$205,281,897)	<0%
AP	Counter Flow	(\$15,705,393)	(\$22,253,308)	\$5,193,355			
	Prevailing Flow	\$173,787,290	\$290,250,148	(\$101,474,035)			
	Total	\$158,081,897	\$267,996,840	(\$96,280,680)	\$136,406,663	(\$232,687,343)	<0%
BGE	Counter Flow	\$14,008,725	(\$2,300,744)	\$17,517,695			
	Prevailing Flow	\$43,572,235	\$44,182,978	\$3,147,280			
	Total	\$57,580,960	\$41,882,233	\$20,664,975	\$58,491,916	(\$37,826,940)	35.3%
ComEd	Counter Flow	(\$6,620,022)	(\$26,978,041)	\$19,787,055			
	Prevailing Flow	\$66,444,688	\$112,919,688	(\$40,744,272)			
	Total	\$59,824,666	\$85,941,647	(\$20,957,217)	\$91,907,660	(\$112,864,877)	<0%
DAY	Counter Flow	(\$1,357,607)	(\$1,611,412)	\$136,714			
	Prevailing Flow	\$1,574,798	\$4,229,335	(\$2,518,714)			
	Total	\$217,190	\$2,617,923	(\$2,382,001)	\$4,003,960	(\$6,385,961)	<0%
DLCO	Counter Flow	(\$1,828,474)	(\$6,299,121)	\$4,312,944			
	Prevailing Flow	\$6,295,118	\$3,924,859	\$2,913,201			
	Total	\$4,466,644	(\$2,374,262)	\$7,226,145	\$7,870,868	(\$644,723)	91.8%
Dominion	Counter Flow	(\$10,555,463)	(\$22,925,830)	\$11,459,977			
	Prevailing Flow	\$145,761,931	\$195,864,486	(\$37,530,865)			
	Total	\$135,206,468	\$172,938,657	(\$26,070,888)	\$136,500,609	(\$162,571,497)	<0%
DPL	Counter Flow	(\$1,528,297)	(\$1,656,240)	(\$3,870)			
	Prevailing Flow	\$18,227,014	\$17,182,110	\$2,616,950			
	Total	\$16,698,717	\$15,525,870	\$2,613,080	\$20,945,086	(\$18,332,007)	12.5%
JCPL	Counter Flow	(\$77,769)	(\$3,892,037)	\$3,807,561			
	Prevailing Flow	\$22,110,652	\$26,200,020	(\$2,182,366)			
	Total	\$22,032,883	\$22,307,983	\$1,625,195	\$29,708,141	(\$28,082,946)	5.5%



### Table 8-12 FTR congestion hedging by control zone: Planning period 2010 to 2011 through September 30, 2010 (See 2009 SOM Table 8-26) [continued]

Control Zone	FTR Direction	FTR Credits	FTR Auction Revenue	FTR Hedge	Congestion	FTR Hedge - Conges- tion Difference	Percent Hedged
Met-Ed	Counter Flow	(\$303,284)	(\$1,564,225)	\$1,234,784			
	Prevailing Flow	\$14,433,756	\$6,886,119	\$8,792,521			
	Total	\$14,130,472	\$5,321,894	\$10,027,305	\$9,545,624	\$481,681	>100%
PECO	Counter Flow	\$3,338,582	(\$4,309,257)	\$7,935,786			
	Prevailing Flow	\$25,471,491	\$33,148,407	(\$5,480,049)			
	Total	\$28,810,073	\$28,839,150	\$2,455,737	\$3,318,756	(\$863,019)	74.0%
PENELEC	Counter Flow	(\$9,809,588)	(\$16,860,052)	\$6,204,405			
	Prevailing Flow	\$39,885,369	\$58,326,682	(\$15,001,275)			
	Total	\$30,075,781	\$41,466,630	(\$8,796,870)	\$49,089,661	(\$57,886,531)	<0%
Рерсо	Counter Flow	(\$7,280,682)	(\$9,285,913)	\$1,377,286			
	Prevailing Flow	\$76,008,831	\$109,850,417	(\$27,285,970)			
	Total	\$68,728,149	\$100,564,505	(\$25,908,684)	\$42,180,918	(\$68,089,602)	<0%
PJM	Counter Flow	(\$4,935,772)	(\$13,012,368)	\$7,650,895			
	Prevailing Flow	\$2,169,351	\$5,499,245	(\$3,142,792)			
	Total	(\$2,766,421)	(\$7,513,123)	\$4,508,103	(\$1,356,301)	\$5,864,404	<0%
PPL	Counter Flow	(\$8,201,507)	(\$7,116,230)	(\$1,792,642)			
	Prevailing Flow	\$15,806,327	\$21,555,087	(\$4,385,495)			
	Total	\$7,604,819	\$14,438,857	(\$6,178,137)	(\$754,523)	(\$5,423,613)	<0%
PSEG	Counter Flow	(\$249,467)	(\$4,611,006)	\$4,340,022			
	Prevailing Flow	\$31,949,847	\$71,783,766	(\$37,078,305)			
	Total	\$31,700,380	\$67,172,760	(\$32,738,283)	\$15,573,183	(\$48,311,466)	<0%
RECO	Counter Flow	(\$441,204)	(\$1,092,581)	\$613,324			
	Prevailing Flow	\$112,183	\$159,314	(\$37,455)			
	Total	(\$329,020)	(\$933,267)	\$575,869	\$2,512,297	(\$1,936,428)	22.9%
Total	Counter Flow	(\$59,328,042)	(\$158,974,207)	\$94,529,234			
	Prevailing Flow	\$750,638,734	\$1,219,939,727	(\$404,559,828)			
	Total	\$691,310,693	\$1,060,965,520	(\$310,030,594)	\$685,258,696	(\$2,163,536,265)	<0%



#### Effectiveness of ARRs and FTRs as a Hedge against Congestion

Table 8-13 ARR and FTR congestion hedging by control zone: Planning period 2010 to 2011 through September 30, 2010 (See 2009 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	\$6,095,626	\$9,500,860	\$6,521,820	\$9,074,666	\$18,244,997	(\$9,170,331)	49.7%
AEP	\$194,258,183	\$49,746,174	\$198,249,402	\$45,754,955	\$61,069,182	(\$15,314,227)	74.9%
AP	\$308,392,416	\$158,081,897	\$267,996,840	\$198,477,473	\$136,406,663	\$62,070,810	>100%
BGE	\$33,678,997	\$57,580,961	\$41,882,233	\$49,377,725	\$58,491,916	(\$9,114,191)	84.4%
ComEd	\$91,566,097	\$59,824,665	\$85,941,647	\$65,449,115	\$91,907,660	(\$26,458,545)	71.2%
DAY	\$5,788,157	\$217,191	\$2,617,923	\$3,387,425	\$4,003,960	(\$616,535)	84.6%
DLCO	\$5,052,309	\$4,466,644	(\$2,374,262)	\$11,893,215	\$7,870,868	\$4,022,347	>100%
Dominion	\$176,445,497	\$135,206,468	\$172,938,657	\$138,713,308	\$136,500,609	\$2,212,699	>100%
DPL	\$12,437,921	\$16,698,717	\$15,525,870	\$13,610,768	\$20,945,086	(\$7,334,318)	65.0%
JCPL	\$18,917,345	\$22,032,883	\$22,307,983	\$18,642,245	\$29,708,141	(\$11,065,896)	62.8%
Met-Ed	\$13,935,697	\$14,130,473	\$5,321,894	\$22,744,276	\$9,545,624	\$13,198,652	>100%
PECO	\$23,365,352	\$28,810,073	\$28,839,150	\$23,336,275	\$3,318,756	\$20,017,519	>100%
PENELEC	\$23,704,470	\$30,075,781	\$41,466,630	\$12,313,621	\$49,089,661	(\$36,776,040)	25.1%
Рерсо	\$22,895,504	\$68,728,149	\$100,564,505	(\$8,940,852)	\$42,180,918	(\$51,121,770)	<0%
PJM	\$20,706,621	(\$2,766,421)	(\$7,513,123)	\$25,453,323	(\$1,356,301)	\$26,809,624	>100%
PPL	\$27,383,200	\$7,604,819	\$14,438,857	\$20,549,162	(\$754,523)	\$21,303,685	>100%
PSEG	\$44,042,280	\$31,700,380	\$67,172,760	\$8,569,900	\$15,573,183	(\$7,003,283)	55.0%
RECO	\$93,249	(\$329,021)	(\$933,267)	\$697,495	\$2,512,297	(\$1,814,802)	27.8%
Total	\$1,028,758,921	\$691,310,692	\$1,060,965,519	\$659,104,094	\$685,258,697	(\$26,154,603)	96.2%

#### Table 8-14 ARR and FTR congestion hedging: Planning periods 2009 to 2010 and 2010 to 2011<sup>7</sup> (See 2009 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
2009/2010	\$1,276,852,551	\$879,858,494	\$1,368,744,320	\$787,966,725	\$816,996,461	(\$29,029,736)	96.4%
2010/2011*	\$344,031,671	\$694,418,596	\$365,350,969	\$673,099,298	\$685,258,696	(\$12,159,399)	98.2%

\* Shows four months ended 30-Sep-10

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

Table 8-15 ARRs and self-scheduled FTR credits as a hedge against energy charges by control zone: January through September 2010 (See 2009 SOM, Table 8-29)

Control Zone	ARR Credits	Self-Scheduled FTR Credits	Total Hedge	Total Energy Charges	Percent of Energy Charges Covered by ARR and Self-Scheduled FTR Credits
AECO	\$8,634,718	\$1,195,231	\$9,829,949	\$527,695,202	1.9%
AEP	\$4,649,721	\$133,653,035	\$138,302,757	\$4,190,577,520	3.3%
AP	\$30,684,871	\$273,542,176	\$304,227,047	\$1,704,464,574	17.8%
BGE	\$29,243,268	\$4,361,408	\$33,604,676	\$1,607,335,486	2.1%
ComEd	\$33,531,737	\$13,400,100	\$46,931,838	\$2,971,477,406	1.6%
DAY	\$3,790,244	\$1,891,871	\$5,682,115	\$543,382,247	1.0%
DLCO	\$2,702,658	\$488	\$2,703,147	\$458,418,907	0.6%
Dominion	\$4,206,317	\$196,551,333	\$200,757,651	\$4,266,751,071	4.7%
DPL	\$10,626,726	\$1,514,322	\$12,141,048	\$843,351,966	1.4%
JCPL	\$16,979,554	\$2,832,538	\$19,812,092	\$1,076,059,197	1.8%
Met-Ed	\$4,481,390	\$7,519,111	\$12,000,502	\$649,751,341	1.8%
PECO	\$1,369,938	\$31,065,806	\$32,435,744	\$1,794,748,851	1.8%
PENELEC	\$17,421,713	\$7,149,664	\$24,571,377	\$599,599,506	4.1%
Рерсо	\$15,928,001	\$2,347,921	\$18,275,922	\$1,497,554,418	1.2%
PJM	\$9,187,297	\$2,523,457	\$11,710,754	NA	NA
PPL	\$7,223,644	\$12,685,755	\$19,909,399	\$1,633,584,853	1.2%
PSEG	\$47,561,669	\$5,114,128	\$52,675,797	\$2,035,408,820	2.6%
RECO	\$14,018	\$0	\$14,018	\$67,588,582	0.0%
Total	\$248,237,485	\$697,348,346	\$945,585,832	\$26,508,109,834	3.6%

<sup>7</sup> 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 first four months (June through September 2010) of this planning period, and the FTR Auction Revenue includes the net revenue in the Monthly Balance of Planning Period FTR Auctions for the first four months of this planning period and the portion of Annual FTR Auction revenue distributed to the first four months.



### Table 8-16 FTRs as a hedge against energy charges by control zone: January through September 2010 (See 2009 SOM, Table 8-30)

Control Zone	FTR Credits (Excluding Self-Scheduled FTRs)	FTR Auction Revenue (Excluding Self-Scheduled FTRs)	Total FTR Hedge (Excluding Self-Scheduled FTRs)	Total Energy Charges	Percent of Energy Charges Covered by FTR Credits (Excluding Self-Scheduled FTRs)
AECO	\$10,568,160	\$11,102,958	(\$534,798)	\$527,695,202	(0.1%)
AEP	\$7,631,886	\$1,163,057	\$6,468,829	\$4,190,577,520	0.2%
AP	(\$6,008,442)	(\$2,689,945)	(\$3,318,497)	\$1,704,464,574	(0.2%)
BGE	\$63,081,258	\$27,337,795	\$35,743,463	\$1,607,335,486	2.2%
ComEd	\$68,112,278	\$25,479,151	\$42,633,127	\$2,971,477,406	1.4%
DAY	(\$993,966)	(\$536,375)	(\$457,591)	\$543,382,247	(0.1%)
DLCO	\$13,566,110	(\$3,131,664)	\$16,697,774	\$458,418,907	3.6%
Dominion	\$31,149,173	\$11,578,133	\$19,571,039	\$4,266,751,071	0.5%
DPL	\$22,177,842	\$19,813,894	\$2,363,948	\$843,351,966	0.3%
JCPL	\$20,383,824	\$22,628,556	(\$2,244,732)	\$1,076,059,197	(0.2%)
Met-Ed	\$15,428,397	\$3,706,206	\$11,722,192	\$649,751,341	1.8%
PECO	\$11,199,046	\$5,081,156	\$6,117,890	\$1,794,748,851	0.3%
PENELEC	\$59,140,498	\$33,902,596	\$25,237,902	\$599,599,506	4.2%
Рерсо	\$115,654,962	\$78,112,276	\$37,542,686	\$1,497,554,418	2.5%
PJM	(\$6,824,459)	(\$6,952,384)	\$127,925	NA	NA
PPL	\$6,690,024	\$5,894,175	\$795,849	\$1,633,584,853	0.0%
PSEG	\$58,549,743	\$65,751,706	(\$7,201,963)	\$2,035,408,820	(0.4%)
RECO	(\$1,018,955)	(\$1,665,243)	\$646,288	\$67,588,582	1.0%
Total	\$488,487,379	\$296,576,048	\$191,911,331	\$26,508,109,834	0.7%

Table 8-17 ARRs and FTRs as a hedge against energy charges by control zone: January through September 2010 (See 2009 SOM, Table 8-31)

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	\$9,829,949	(\$534,798)	\$9,295,151	\$527,695,202	1.8%
AEP	\$138,302,757	\$6,468,829	\$144,771,585	\$4,190,577,520	3.5%
AP	\$304,227,047	(\$3,318,497)	\$300,908,550	\$1,704,464,574	17.7%
BGE	\$33,604,676	\$35,743,463	\$69,348,139	\$1,607,335,486	4.3%
ComEd	\$46,931,838	\$42,633,127	\$89,564,965	\$2,971,477,406	3.0%
DAY	\$5,682,115	(\$457,591)	\$5,224,524	\$543,382,247	1.0%
DLCO	\$2,703,147	\$16,697,774	\$19,400,921	\$458,418,907	4.2%
Dominion	\$200,757,651	\$19,571,039	\$220,328,690	\$4,266,751,071	5.2%
DPL	\$12,141,048	\$2,363,948	\$14,504,996	\$843,351,966	1.7%
JCPL	\$19,812,092	(\$2,244,732)	\$17,567,360	\$1,076,059,197	1.6%
Met-Ed	\$12,000,502	\$11,722,192	\$23,722,693	\$649,751,341	3.7%
PECO	\$32,435,744	\$6,117,890	\$38,553,634	\$1,794,748,851	2.1%
PENELEC	\$24,571,377	\$25,237,902	\$49,809,279	\$599,599,506	8.3%
Рерсо	\$18,275,922	\$37,542,686	\$55,818,608	\$1,497,554,418	3.7%
PJM	\$11,710,754	\$127,925	\$11,838,679	NA	NA
PPL	\$19,909,399	\$795,849	\$20,705,248	\$1,633,584,853	1.3%
PSEG	\$52,675,797	(\$7,201,963)	\$45,473,834	\$2,035,408,820	2.2%
RECO	\$14,018	\$646,288	\$660,306	\$67,588,582	1.0%
Total	\$945,585,832	\$191,911,331	\$1,137,497,162	\$26,508,109,834	4.3%



