# Appendix – Errata

## Section 2: Energy Market, Part 1, Page 57

Change: On page 57, updated Table 2-27 as shown below:

Mont	hs Adder-Eligible	FMU & AU Count
<del>Jan</del>	1	18
Feb	2	1
Mar	3	12
<del>Apr</del>	4	24
<del>May</del>	5	19
Jun	6	6
<del>Jul</del>	7	7
Aug	8	16
Sep	9	10
Oct	10	8
Nov	11	3
Dec	12	52
Total		176

## Section 2: Energy Market, Part 1, Pages 133 and 134

Change: On page 133, updated paragraph as shown below:

Table 2-92 shows aggregated performance by zone across all five Load Management Events in the 2010/2011 Delivery Year compliance period. On average, participants demonstrated load reductions of 4,652.2 4,662.0 MW, or about 99.4 99.7 percent, of the 4,829.2 4,678.2 committed MW deployed by PJM.

Change: On page 134, updated sentence as shown below:

While aggregated performance across all events was <del>99.4</del> 99.7 percent, performance for specific customers varied significantly.

## Section 3: Energy Market, Part 2, Page 178

**Change:** Replaced Figure 3-4 with the correct figure shown below:

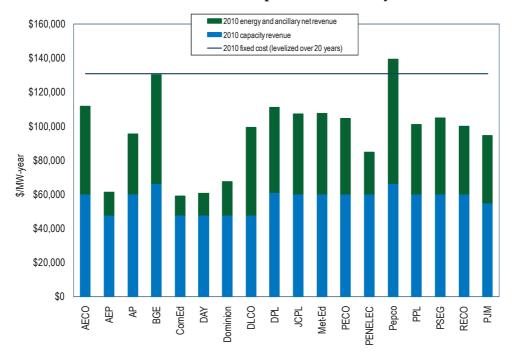


Figure 3-4 New entrant CT zonal real-time 2010 net revenue by market and 20-year levelized fixed cost as of 2010 (Dollars per installed MW-year)

## Section 3: Energy Market, Part 2, Page 224

Change: Updated sentence as shown below:

PJM Environmental Information Services (EIS), an unregulated subsidiary of PJM, operates the Generation Attribute Tracking System (GATS), which is used by many jurisdictions to track and auction these renewable energy credits.

# Section 3: Energy Market, Part 2, Pages 229 through 234

Change: Replaced "Scarcity and Scarcity Pricing" section with the following:

## **Scarcity and Scarcity Pricing**

In electricity markets, scarcity means that demand, plus reserve requirements, is nearing the limits of the available capacity of the system. Under the current PJM rules, high prices, or scarcity pricing, result from high offers by individual generation owners for specific units when the system is close to its available capacity. These offers give the aggregate energy

supply curve its steep upward sloping tail.<sup>1</sup> As demand increases and units with higher markups and higher offers are required to meet demand, prices increase. As a result, positive markups and associated high prices on high-load days may be the result of appropriate scarcity pricing rather than market power.

The energy market alone frequently does not directly or sufficiently value some of the resources needed to provide for reliability. That is the reason for the development of administrative scarcity pricing mechanisms such as the Reliability Pricing Model (RPM) capacity market and the scarcity pricing mechanism in the energy market.

## **Designation of Maximum Emergency MW**

During extreme system conditions when PJM declares Maximum Emergency Alerts, the PJM tariff specifies that capacity can only be designated as maximum emergency if the capacity has limitations on its availability because of environmental limitations, fuel limitations, emergency conditions at the unit or it represents temporary capacity additions obtained by operating the unit past its normal limits.<sup>2</sup> <sup>3</sup> The intent of the rule regarding maximum emergency designation is to ensure that only capacity with a clearly defined issue limiting its economic availability is defined as maximum emergency MW which can be made available, at PJM direction, to maintain the system during emergency conditions.

<sup>&</sup>lt;sup>1</sup> See 2010 State of the Market Report for PJM, Volume II, Section 2, "Energy Market, Part I," at Figure 2-1, "Average PJM aggregate supply curves: Summers 2009 and 2010."

<sup>&</sup>lt;sup>2</sup> See PJM Tariff, 6A.1.3 Maximum Emergency Offer Limitations pp. 1839-1840. Effective Date: 9/17/2010 See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010), pp. 69.

<sup>&</sup>lt;sup>3</sup> See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010), p. 69: "On days when PJM has declared, prior to 1800 hours on the day prior to the operating day, a Maximum Emergency Generation Alert for the entire PJM Control Area or for specific Control Zones or Scarcity Pricing Regions, the only units for which all of part of their capability may be designated as Maximum Emergency are those that meet the criteria described above. Should PJM declare a Maximum Generation Alert during the operating day for which the alert is effective, generation owners will be responsible for removing any unit availability from the Maximum Generation category that does not meet the above criteria within 4 hours of the issuance of the alert. PJM will make a mechanism available to participants by which they may inform PJM of their generating capability that meets the above criteria and indicate which of the criteria it meets." See also PJM Tariff, 6A.1.3 Maximum Emergency Offer Limitations pp. 1839-1840.

Declarations of a Hot/Cold Weather Alerts also affect declarations of Maximum Emergency Capacity under the rules.<sup>4 5</sup> A Hot/Cold Weather Alert indicates conditions that require that combustion turbine (CT) and steam units with limited fuel availability be removed from economic availability and made available as emergency only capacity.<sup>6</sup> The Hot/Cold Weather Alert rule regarding Maximum Emergency capacity declarations, as outlined in Manual 13, is consistent with the Maximum Emergency Alert rule and its intent. While the Maximum Emergency Alert rule and its intent. While the Maximum Emergency designations to capacity with limited availability during extreme system conditions, the Hot/Cold Weather Alert rule defines specific availability limitations which require that capacity be defined as maximum emergency during extreme system conditions.

The indicated references are the only place in the tariff that there is a clear definition of maximum emergency status. The analysis suggests that some MW are inappropriately designated as maximum emergency at times of declared Maximum Emergency Alerts. The analysis also suggests that some MW are designated as maximum emergency at times other than declared Maximum Emergency Alerts, which do not meet this definition. Such designations could be considered a form of withholding. There should be a clear definition of maximum emergency status that applies throughout the tariff.

There are incentives to keep capacity incorrectly designated as maximum emergency. Capacity designated as maximum emergency is considered as available, not on outage, even during the peak five hundred hours of the year defined in RPM. Capacity designated as

<sup>&</sup>lt;sup>4</sup> The purpose of the Hot Weather Alert is to prepare personnel and facilities for extreme hot and/or humid weather conditions which may cause capacity requirements/unit unavailability to be substantially higher than forecast are expected to persist for an extended period. In general, a Hot Weather alert can be issued on a Control Zone basis, if projected temperatures are to exceed 90 degrees with high humidity for multiple days. See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010), p 41.

<sup>&</sup>lt;sup>5</sup> The purpose of the Cold Weather Alert is to prepare personnel and facilities for expected extreme cold weather conditions. As a general guide when the forecasted weather conditions approach minimum or actual temperatures for the Control Zone fall near or below ten degrees Fahrenheit. PJM can initiate a Cold Weather Alert at higher temperatures if PJM anticipates increased winds or if PJM projects a portion of gas fired capacity is unable to obtain spot market gas during load pick-up periods (refer to Inter RTO Natural Gas Coordination Procedure below). PJM will generally initiate a Cold Weather Alert on a Control Zone basis. See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010), p 39.

<sup>&</sup>lt;sup>6</sup> See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010, pp 37-38. CTs burning oil, kerosene or diesel with less than 16 hours of remaining fuel are considered to be fuel limited during a Hot Weather Alert. CTs burning gas with less than 8 hours of daily fuel allowance are considered to be fuel limited during a Hot Weather Alert. Steam units with less than 32 hours of fuel in inventory are considered to be fuel limited during a Hot Weather Alert.

maximum emergency is substantially less likely to be dispatched than capacity with an economic offer on high load days.

Given these incentives to keep capacity incorrectly designated as maximum emergency under normal system conditions, the rules regarding maximum emergency designations are expected to result in a decrease in the level of capacity designated as maximum emergency during Maximum Emergency Alerts because MW designated as maximum emergency, which do not have to meet a clear standard at other times, must comply with the tariff definition of maximum emergency during Maximum Emergency Alerts. The pattern of daily average maximum emergency levels before and during Maximum Emergency Alerts is generally consistent with this expectation. Table 3-68 shows that declared maximum emergency MW fell, from the previous day's levels, on July 7 and July 23 after Maximum Emergency Alert declarations. Capacity which was designated as maximum emergency prior to a declaration of Maximum Emergency Alerts but which did not meet this tariff definition was reported as on forced outage or as available economic capacity after such a declaration.

During Maximum Emergency Alert Days, capacity designated as maximum emergency was used to produce energy in every hour of each day, despite the fact that prices were below \$500 and there were no PJM instructions to load the maximum emergency generation. This behavior suggests that a portion of MW designated as maximum emergency were used as economic MW by participants and were therefore incorrectly classified even during Maximum Emergency Alert Days

There are incentives to increase declared outages and potential incentives to decrease declared outages during high demand periods. In fact, for each summer month in 2010, declared outage MW during Hot Weather Alerts were lower than the average declared outage MW in each summer month, although reductions in outage MW were offset to a minor extent (1.6 percent of MW) by increases in maximum emergency generation declarations.

#### **Definitions**

PJM's current administrative scarcity pricing mechanism is designed to recognize real-time scarcity in the Energy Market and to increase prices to reflect the scarcity conditions. Administrative scarcity pricing results when PJM takes identified emergency actions. The scarcity price is based on the highest offer of an operating unit. PJM takes emergency actions on a regional basis when a region of the PJM system is low on economic sources of energy

and reserves. Such actions include voltage reductions,<sup>7</sup> emergency power purchases, manual load dump, and loading of maximum emergency generation.<sup>8</sup> These do not represent all of the emergency actions that are available to PJM operators, but the listed steps are defined in the PJM Tariff as the triggers for scarcity pricing events.<sup>9</sup>

This section defines scarcity to exist when the demand for power exceeds the capacity available to provide both energy and 10 minute synchronized reserves. There were no such scarcity events in 2010. This section defines a high-load day to exist when hourly real time demand, including a 30 minute reserve target, equals 95 percent or more of total, within-30 minute supply in the absence of non market administrative intervention, on an hourly integrated basis over a two hour period.<sup>10</sup> There were eighteen high load days in June, July, August and September of 2010.

### 2010 Results: High-Load Days

While PJM did not declare scarcity conditions in 2010, there were a number of days when, on a local or regional basis, the PJM system experienced relatively high resource requirements. Table 3-68 provides a description of the maximum emergency alerts and actions that can be posted by PJM.

<sup>&</sup>lt;sup>7</sup> A voltage reduction warning (not an action) is evidence that the system is running out of available resources. A voltage reduction warning "is implemented when the available synchronized reserve capacity is less than the synchronized reserve requirement, after all available secondary and primary reserve capacity (except restricted maximum emergency capacity) is brought to a synchronized reserve status and emergency operating capacity is scheduled from adjacent systems." See PJM. "Manual 13: Emergency Operations," Revision 42 (Effective January 24, 2010), p. 24. Note that curtailment of nonessential building load is implemented prior to, or at this same time as, a voltage reduction action.

<sup>&</sup>lt;sup>8</sup> See PJM. "Manual 13: Emergency Operations," Revision: 42 (Effective January 24, 2010), p. 29: "The PJM RTO is normally loaded according to bid prices; however, during periods of reserve deficiencies, other measures must be taken to maintain reliability."

<sup>&</sup>lt;sup>9</sup> See OATT, Sheet No. 402A.01.

<sup>&</sup>lt;sup>10</sup> See PJM. "Manual 13: Emergency Operations", Revision 42. Effective Date January 24, 2011. p 11. The thirty minute reserve target is the day-ahead operating reserve target based of a percentage of Day Ahead peak load.

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Event	Purpose
Maximum Emergency Alert	Day ahead notice that maximum emergency generation has been called into day ahead operating capacity
Maximum Emergency Generation Action Transmission Contingency Support	Real time notice that maximum emergency generation may be required to provide local contingency support
Maximum Emergency Generation Action	Real time notice that maximum emergency generation may be required for system support

#### Table 3-68 Maximum Emergency Alerts and Actions

Table 3-69 shows high load days, Hot Weather Alerts, Maximum Emergency Alerts and Maximum Emergency Actions for June through September. There was one high load day on which PJM took emergency generation actions (August 11, 2010), but the emergency generation action was to control for local, rather than regional or system-wide reliability issues, and did not trigger a scarcity event. There were two high load days for which Maximum Emergency Generation Alerts were declared. There were three Maximum Emergency Alert days in 2010, May 26, June 24 and August 24, which did not meet the definition of a high load day. From June through September, PJM declared thirty one Hot Weather Alert days. Nine of these days met the definition of a high load day.

Table 3-69 High Load Hour,	Hot Weather	Alerts and	Maximum	Emergency	Related
Events: June through September	r <b>2010</b>				

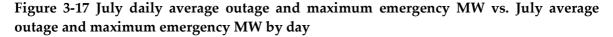
Dates	High Load Day (High Load Hours)	Hot Weather Alert	Maximum Emergency Maximum Emergency Action Transmission Maximum Emergency Generation Alert Contigency Support Generation Actior
6/5/2010	2		
6/11/2010	_		PEPCO
6/18/2010		Mid Atlantic and Southern	
6/20/2010		Mid Atlantic and Southern	
6/22/2010		PJMCA plus Southern	
6/23/2010	2	PJM	
6/24/2010	2	Mid Atlantic and Southern	AE (Atl City Elec) Sub Transmission Zone
6/25/2010		Mid Atlantic and Southern	( * • • • ) _ • • ) • • • • • • • • • • • •
6/26/2010		Mid Atlantic and Southern	
6/27/2010		Mid Atlantic and Southern	
6/28/2010		Mid Atlantic and Southern	
6/29/2010	2	Mid Atlantic and Southern	
7/4/2010	2	Mid Atlantic and Southern	
7/5/2010		AEP, AP, DAY, DLCO, OVEC, Mid Atlantic, Southern	
7/6/2010		AEP, AP, DAY, DLCO, OVEC, Mid Atlantic, Southern	
7/7/2010	2	AEP, AP, DAY, DLCO, OVEC, Mid Atlantic, Southern	Mid Atlantic Southern Region
7/8/2010	2	AEP, AP, DAY, DLCO, OVEC, Mid Atlantic, Southern	
7/16/2010		Mid Atlantic and Southern	
7/19/2010		Mid Atlantic and Southern	
7/20/2010		Mid Atlantic and Southern	
7/21/2010	7	Mid Atlantic and Southern	
7/22/2010	1	Mid Atlantic and Southern	
7/23/2010	5	PJM	Mid Atlantic
7/24/2010	3	PJM	mic Additio
7/25/2010	3	Mid Atlantic, DOM	
7/27/2010	4	Mid Additic, DOM	
7/28/2010	4	Mid Atlantic and Southern	
7/29/2010	4	Southern	
8/3/2010	4	Sounem	
8/4/2010	4		
8/5/2010	4	Mid Atlantic, Southern	
8/9/2010	5	Wid Additio, Southern	
8/9/2010	5	AEP, AP, DAY, DLCO, Mid Atlantic, Southern, DOM	
8/11/2010	5	Mid Atlantic, Southern	PEPCC
8/12/2010	5	Western	
8/27/2010	2	Western	
	2	AP, DLCO, Mid Atlantic, Southern	
8/30/2010			
9/1/2010	4	AP, DLCO, Mid Atlantic, DOM	
9/2/2010	4	Mid Atlantic, Domininion RTO	
9/23/2010		RTO	PJM: AP, BC, PEPCO AP, BGE and PEPCO PJM RTO AP, BGE and PEPCO
9/24/2010		RIO	Fum KIU AP, BGE and PEPUL

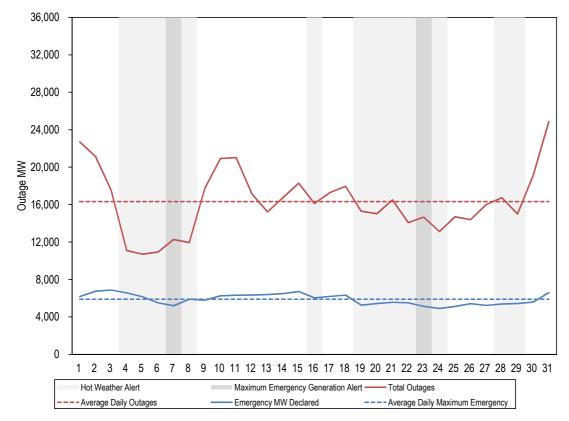
There were eighteen high load days, which must include two contiguous high load hours, from June through September, 2010, which included 66 high load hours. There were four additional days with one high load hour each, for a total of 70 high-load hours in 2010.

Seven of the eighteen high load days of 2010 and 29 of the 70 high load hours in 2010 occurred in July. Figure 3-17 shows, for July, the daily and monthly average outage MW and the daily and monthly average maximum emergency MW. Emergency MW are measured as declared maximum emergency capacity offers plus any actual generation in excess of declared maximum emergency capacity in any hour. For example, a 100 MW generator has 10 MW of its offered capacity listed as emergency MW in its offer curve. If the generator produced 102 MWh of output in one hour, it would be counted as 12 MW of emergency WH in that hour. The same unit would be counted as offering 10 MW of emergency when it was not operating. Figure 3-17 also shows the days for which PJM declared Hot Weather Alerts and days for which PJM declared Maximum Emergency Generation Alerts in July.

Hot Weather Alerts and Maximum Emergency Generation Alerts are declared in advance of the operating day.

Despite a nuclear outage (Salem 1) in July, outage levels in the Hot Weather Alert period, July 4 through July 8, were lower than the July average.





July 7 and July 23 were both Maximum Emergency Alert Days. Figure 3-18 shows average hourly declared emergency MW by day and by technology type for July. Hourly average emergency MW did fall slightly on July 7 and July 23 relative to the prior day's emergency MW. Figure 3-18 shows that steam units had the greatest variance in the total maximum emergency MW in July. Steam resources showed the largest decline in maximum emergency MW in the five day Hot Day period from July 4 through July 8. Figure 3-17 and Figure 3-18 show that behavior on both July 7 and July 23 was consistent with PJM market rules regarding maximum emergency MW declarations during a Maximum Emergency Alert. Maximum emergency MW declarations on both days were lower than the previous day's declarations levels on an aggregate basis. The same aggregate behavior was observed on September 23 and September 24, two other days with Maximum Emergency Alerts.

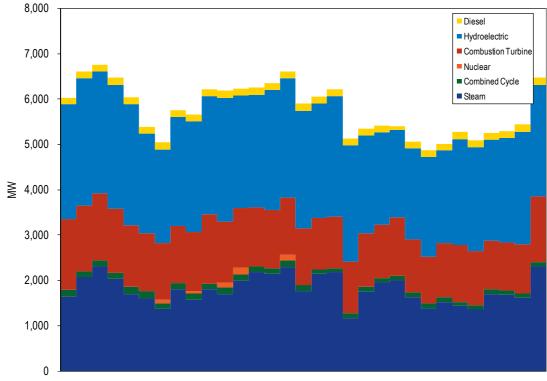


Figure 3-18 Average hourly declared emergency MW by day and by source: July 2010

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

On July 7, a Maximum Emergency Alert Day, units produced energy from maximum emergency MW in every hour of the day, ranging from 46 MWh in hour 0500 to 740 MWh of energy in hour 1900, despite the fact that hourly integrated prices were below \$500 and there were no PJM instructions to load the maximum emergency generation. Including energy from MW in excess of economic or emergency MW offers, from 591 (hour 0400) to 1,746 (hour 2000) MWh of energy was produced from maximum emergency capacity on July 7. This behavior suggests that a portion of MW designated as maximum emergency were used as economic MW by participants and were therefore incorrectly classified even during Maximum Emergency Alert Days when the tariff definition of maximum emergency applies.

Figure 3-19 shows, by hour, the total emergency MW declared and total emergency MW used to produce energy on July 7. Steam units produced, on an hourly average basis, 57 percent of the energy from emergency MW on July 7.

The intent of the rule regarding maximum emergency designation is to permit capacity with extremely limited short run availability for specific reasons to not offer or run even during a Maximum Emergency Alert so that it can be made available, at PJM direction, to maintain system reliability during designated emergency conditions.

The actual energy output from emergency MW on July 7 suggests that a substantial amount of capacity designated as maximum emergency MW did not behave in a manner consistent with the rule. Despite the fact that no Maximum Emergency Generation Action was declared on July 7, Figure 3-19, shows that on July 7 these maximum emergency MW were being used to provide energy in every hour and at hourly integrated prices below \$500. This behavior suggests that a portion (11.9 percent on average) of MW designated as maximum emergency were used as economic MW by participants and were therefore incorrectly classified even during Maximum Emergency Alert Days.

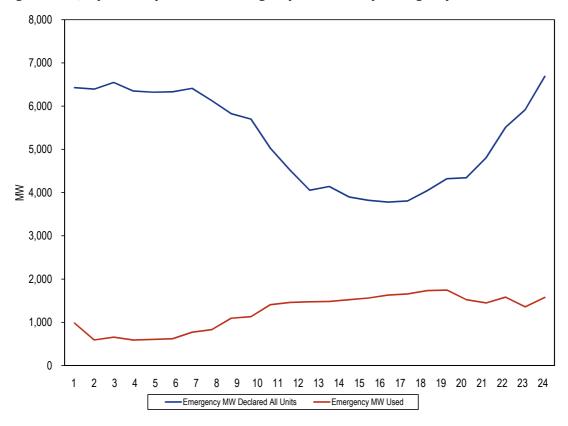


Figure 3-19 July 7 hourly declared emergency MW, hourly emergency MW

## Section 6: Ancillary Services, Pages 445 and 448

Change: Updated paragraph as shown below:

Table 6-14 shows the additional revenues that are paid as a result of the rule change that increased the margin on cost based offers from \$7.50 to \$12.00 per MWh (Table 6-14). The impact of the increased margin is calculated using the offer margin of all offering units, creating a new supply curve, and re-solving for the new marginal unit and new RMCP. The calculation assumes that synchronized reserve assignments and operating reserve

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allocations remain the same as in the existing solution. The increase in credits paid, of <del>\$6,814,605,</del> \$7,407,790 is a result of the higher offer margin permitted under the new rules.

**Change:** Replaced Tables 6-14 and 6-15 with the updated tables shown below:

Table 6-14 Impact	of \$12	adder t	o cost	based	regulation	offer:	December	2008	through
December 2010									

Year	Month	Load Weighted Regulation Market Clearing Price	Load Weighted Regulation Market Clearing Price With Old Rule	Total Regulation Credits	Regulation Credits Attributable to New Rule	Percent Increase in Total Credits Due to Increase of Markup from \$7.50 to \$12.00
2008	Dec	\$24.79	\$23.47	\$25,608,465	\$890,749	3.5%
2009	Jan	\$21.04	\$19.91	\$26,614,105	\$813,654	3.1%
2009	Feb	\$25.17	\$23.95	\$20,972,293	\$734,061	3.5%
2009	Mar	\$19.90	\$19.37	\$17,618,413	\$316,889	1.8%
2009	Apr	\$16.84	\$16.36	\$12,171,811	\$258,778	2.1%
2009	May	\$32.41	\$31.93	\$21,166,797	\$265,494	1.3%
2009	Jun	\$32.59	\$32.19	\$24,566,721	\$312,979	1.3%
2009	Jul	\$24.10	\$23.25	\$20,065,104	\$414,408	2.1%
2009	Aug	\$23.89	\$23.37	\$23,010,216	\$369,407	1.6%
2009	Sep	\$20.09	\$19.32	\$15,216,790	\$497,484	3.3%
2009	Oct	\$17.20	\$16.31	\$12,882,665	\$445,635	3.5%
2009	Nov	\$14.06	\$13.48	\$10,695,843	\$269,283	2.5%
2009	Dec	\$17.75	\$16.72	\$17,303,919	\$600,585	3.5%
2010	Jan	\$20.66	\$20.49	\$29,465,392	\$125,523	0.4%
2010	Feb	\$16.17	\$16.13	\$16,640,892	\$29,265	0.2%
2010	Mar	\$16.70	\$16.57	\$14,156,600	\$76,654	0.5%
2010	Apr	\$17.43	\$17.10	\$13,124,014	\$167,101	1.3%
2010	May	\$19.36	\$18.83	\$18,674,880	\$299,170	1.6%
2010	Jun	\$19.65	\$19.42	\$21,783,561	\$138,358	0.6%
2010	Jul	\$23.47	\$23.38	\$31,927,050	\$60,049	0.2%
2010	Aug	\$21.32	\$21.22	\$27,062,825	\$71,696	0.3%
2010	Sep	\$19.25	\$19.10	\$18,341,488	\$84,500	0.5%
2010	Oct	\$13.53	\$13.47	\$10,158,529	\$27,076	0.3%
2010	Nov	\$11.78	\$11.70	\$11,392,510	\$42,183	0.4%
2010	Dec	\$14.04	\$14.03	\$25,225,775	\$96,809	0.4%
Total				\$485,846,657	\$7,407,790	1.5%

Year	Month	Balancing Operating Reserve Credits No Longer Offset	Total Regulation Credits	Percent of Regulation Credits No Longer Offsetting Operating Reserves
2008	Dec	\$253,165	\$25,608,465	1.0%
2009	Jan	\$127,036	\$26,614,105	0.5%
2009	Feb	\$220,460	\$20,972,293	1.1%
2009	Mar	\$79,726	\$17,618,413	0.5%
2009	Apr	\$8,893	\$12,171,811	0.1%
2009	May	\$182,624	\$21,166,797	0.9%
2009	Jun	\$274,916	\$24,566,721	1.1%
2009	Jul	\$191,538	\$20,065,104	1.0%
2009	Aug	\$267,116	\$23,010,216	1.2%
2009	Sep	\$252,136	\$15,216,790	1.7%
2009	Oct	\$169,130	\$12,882,665	1.3%
2009	Nov	\$166,112	\$10,695,843	1.6%
2009	Dec	\$104,496	\$17,303,919	0.6%
2010	Jan	\$64,990	\$29,465,392	0.2%
2010	Feb	\$64,727	\$16,640,892	0.4%
2010	Mar	\$109,344	\$14,156,600	0.8%
2010	Apr	\$134,738	\$13,246,951	1.0%
2010	May	\$74,352	\$18,674,880	0.4%
2010	Jun	\$41,065	\$21,783,561	0.2%
2010	Jul	\$85,961	\$31,927,050	0.3%
2010	Aug	\$110,610	\$27,062,825	0.4%
2010	Sep	\$58,587	\$18,341,488	0.3%
2010	Oct	\$34,911	\$10,158,529	0.3%
2010	Nov	\$33,676	\$11,392,510	0.3%
2010	Dec	\$126,074	\$25,225,775	0.5%
Total		\$3,236,381	\$485,969,594	0.7%

Table 6-15 Additional credits paid to regulating units from no longer netting credits above RMCP against operating reserves: December 2008 through December 2010

# Section 8: Financial Transmission Rights and Auction Revenue Rights, Page 586

Change: Replaced Table 8-28 with the updated table shown below:

Table 8-28 ARRs and ARR revenue automatically reassigned for network load changes by control zone: June 1, 2009, through December 31, 2010

	ARRs Rea (MW-		ARR Revenue Reassigned [Dollars (Thousands) per MW-day]		
	2009/2010 2010/2011		2009/2010	2010/2011	
Control Zone	(12 months)	(7 months)*	(12 months)	(7 months)*	
AECO	417	620	\$7.6	\$4.7	
AEP	268	381	\$6.3	\$9.1	
AP	629	906	\$76.9	\$101.0	
BGE	3,162	2,707	\$63.2	\$41.2	
ComEd	3,145	1,976	\$10.1	\$48.1	
DAY	21	93	\$0.1	\$0.4	
DLCO	371	234	\$1.0	\$1.8	
Dominion	0	0	\$0.0	\$0.0	
DPL	952	768	\$10.9	\$7.5	
JCPL	1,151	1,818	\$19.3	\$19.3	
Met-Ed	33	388	\$0.8	\$6.1	
PECO	29	652	\$0.5	\$5.3	
PENELEC	8	310	\$0.2	\$5.8	
Рерсо	2,511	1,874	\$25.5	\$21.6	
PPL	4,489	2,279	\$103.7	\$37.8	
PSEG	1,984	2,715	\$49.6	\$44.9	
RECO	62	111	\$0.0	\$0.1	
Total	19,230	17,831	\$375.8	\$354.5	
* Through 31-Dec-10					