

SECTION 7 – CONGESTION

Congestion occurs when available, least-cost energy cannot be delivered to all loads for a period because transmission facilities are not adequate to deliver that energy. When the least-cost available energy cannot be delivered to load in a transmission-constrained area, higher cost units in the constrained area must be dispatched to meet that load.¹ The result is that the price of energy in the constrained area is higher than in the unconstrained area because of the combination of transmission limitations and the cost of local generation. Locational marginal prices (LMPs) reflect the price of the lowest-cost resources available to meet loads, taking into account actual delivery constraints imposed by the transmission system. Thus LMP is an efficient way to price energy when transmission constraints exist. Congestion reflects this efficient pricing.

Congestion reflects the underlying characteristics of the power system including the nature and capability of transmission facilities and the cost and geographical distribution of generation facilities. Congestion is neither good nor bad but is a direct measure of the extent to which there are differences in the cost of generation that cannot be equalized because of transmission constraints. A complete set of markets would require direct competition between investments in transmission and generation. The transmission system provides a physical hedge against congestion. The transmission system is paid for by firm load and, as a result, firm load receives the corollary financial hedge in the form of Auction Revenue Rights (ARRs) and/or Financial Transmission Rights (FTRs). While the transmission system and, therefore, ARRs/FTRs are not guaranteed to be a complete hedge against congestion, ARRs/FTRs do provide a substantial offset to the cost of congestion to firm load.²

The Market Monitoring Unit (MMU) analyzed congestion and its influence on PJM markets during the first three months of 2010.

¹ This is referred to as dispatching units out of economic merit order. Economic merit order is the order of all generator offers from lowest to highest cost. Congestion occurs when loadings on transmission facilities mean the next unit in merit order cannot be used and a higher cost unit must be used in its place.

² See the 2009 State of the Market Report for PJM, Volume II, Section 8, "Financial Transmission and Auction Revenue Rights," at "ARR and FTR Revenue and Congestion."

Overview

Congestion Cost

- **Total Congestion.** Total congestion costs increased by \$38.4 million or 13 percent, from \$306.9 million in the first three months of 2009 to \$345.3 million in the first three months of 2010. Day-ahead congestion costs increased by \$2.58 million or one percent, from \$389.5 million in the first three months of 2009 to \$392.1 million in the first three months of 2010. Balancing congestion costs increased by \$35.8 million or 43 percent, from -\$82.6 million in the first three months of 2009 to -\$46.8 million in the first three months of 2010. Total congestion costs have ranged from three percent to nine percent of PJM annual total billings since 2003. Congestion costs were four percent of total PJM billings in the first three months of 2010. Total PJM billings in the first three months of 2010 were \$8.415 billion.
- **Monthly Congestion.** Fluctuations in monthly congestion costs continued to be substantial. In the first three months of 2010, these differences were driven by varying load and energy import levels, different patterns of generation, weather-induced changes in demand and variations in congestion frequency on constraints affecting large portions of PJM load. Monthly congestion costs in the first three months of 2010 ranged from \$20.4 million in March to \$218.5 million in January.

Congestion Component of LMP and Facility or Zonal Congestion

- **Congestion Component of Locational Marginal Price (LMP).** To provide an indication of the geographic dispersion of congestion costs, the congestion component of LMP (CLMP) was calculated for control zones in PJM. Price separation between eastern, southern and western control zones in PJM was primarily a result of congestion on the AP South interface. This interface had the effect of increasing prices in eastern and southern control zones

located on the constrained side of the affected facilities while reducing prices in the unconstrained western control zones.

- Congested Facilities.** Congestion frequency continued to be significantly higher in the Day-Ahead Market than in the Real-Time Market in the first three months of 2010.³ Day-ahead congestion frequency increased from 2009 to 2010 by 1,017 congestion event hours or five percent. In the first three months of 2010, there were 19,548 day-ahead, congestion-event hours compared to 18,531 day-ahead, congestion-event hours in the first three months of 2009. Day-ahead, congestion-event hours increased on internal PJM interfaces and the reciprocally coordinated flowgates between PJM and the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) while congestion frequency on PJM lines and transformers decreased. Real-time congestion frequency decreased from 2009 to 2010 by 1,617 congestion event hours. In the first three months of 2010, there were 3,768 real-time, congestion-event hours compared to 5,385 real-time, congestion-event hours in the first three months of 2009. Real-time, congestion-event hours increased on the internal PJM interfaces, while the reciprocally coordinated flowgates between PJM and the Midwest ISO, transmission lines and transformers saw decreases. The AP South Interface was the largest contributor to congestion costs in the first three months of 2010. With \$170.3 million in total congestion costs, it accounted for 49 percent of the total PJM congestion costs in the first three months of 2010. The top five constraints in terms of congestion costs together contributed \$295.3 million, or 86 percent, of the total PJM congestion in the first three months of 2010. The top five constraints included the AP South interface, the AEP-DOM interface, the 5004/5005 interface, the Bedington – Black Oak interface and the East Frankfurt – Crete line.
- Zonal Congestion.** In the first three months of 2010, the Dominion Control Zone experienced the highest congestion costs of the control zones in PJM with \$68.8 million. The AP South interface, the AEP-DOM interface, the 5004/5005 interface, the Bedington – Black Oak interface, and the Cloverdale – Lexington line contributed \$64.2 million, or 93 percent of the total Dominion Control Zone congestion costs (Table 7-51). The AP Control Zone had the second highest congestion cost in PJM in the first three months of 2010. The \$66.8 million in congestion costs in the AP

Control Zone represented a 43 percent increase from the \$46.7 million in congestion costs the zone had experienced in the first three months of 2009. The AP South interface contributed \$40.1 million, or 60 percent of the total AP Control Zone congestion cost.

Economic Planning Process

- Transmission and Markets.** As a general matter, transmission investments have not been fully incorporated into competitive markets. The construction of new transmission facilities can have significant impacts on energy and capacity markets, but there is no market mechanism in place that would require direct competition between transmission and generation to meet loads in an area. While the RPM construct does provide that qualifying transmission upgrades may be submitted as offers, there have been no such offers. More generally, network transmission is not built based directly on market signals because the owners of network transmission are compensated through a non market mechanism, typically under traditional regulation. PJM has taken a first step towards integrating transmission investments into the market through the use of economic evaluation metrics.⁴ Economic evaluation metrics can be used to determine whether there are positive economic benefits associated with an investment in transmission that might warrant the investment even when it is not required for reliability. The goal of transmission planning should ultimately be the incorporation of transmission investment decisions into market driven processes as much as possible.
- Restructuring Responsibility for Grid Development.** FERC's recent decision in the *Primary Power* case and the currently pending *Central Transmission* case raise significant issues about the ownership of transmission, the resultant incentives to build new transmission facilities and the potential for competitive forces to reduce the cost of transmission.⁵

³ In order to have a consistent metric for real-time and day-ahead congestion frequency, real-time congestion frequency is measured using the convention that an hour is constrained if any of its component five-minute intervals is constrained.

⁴ See 126 FERC ¶61,152 (2009) (final approval for an approach with predefined formulas for determining whether a transmission investment passes the cost-benefit test including explicit accounting for changes in production costs, the costs of complying with environmental regulations, generation availability trends and demand-response trends), *order on reh'g*, 123 FERC ¶61,051 (2008).

⁵ 131 FERC ¶61,015 (April 13, 2010); *Central Transmission, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL10-52.

Conclusion

Congestion reflects the underlying characteristics of the power system, including the nature and capability of transmission facilities, the cost and geographical distribution of generation facilities and the geographical distribution of load. Total congestion costs increased by \$38.4 million or 13 percent, from \$306.9 million in the first three months of 2009 to \$345.3 million in the first three months of 2010. Day-ahead congestion costs increased by \$2.58 million or one percent, from \$389.5 million in the first three months of 2009 to \$392.1 million in the first three months of 2010. Balancing congestion costs increased by \$35.8 million or 43 percent, from -\$82.6 million in the first three months of 2009 to -\$46.8 million in the first three months of 2010. Congestion costs were significantly higher in the Day-Ahead Market than in the balancing market. Congestion frequency was also significantly higher in the Day-Ahead Market than in the Real-Time Market. Day-ahead congestion frequency increased from 2009 to 2010 by 1,017 congestion event hours or five percent. In the first three months of 2010, there were 19,548 day-ahead, congestion-event hours compared to 18,531 day-ahead, congestion-event hours in the first three months of 2009. Real-time congestion frequency decreased from 2009 to 2010 by 1,617 congestion event hours. In the first three months of 2010, there were 3,768 real-time, congestion-event hours compared to 5,385 real-time, congestion-event hours in the first three months of 2009.

ARRs and FTRs served as an effective, but not total, hedge against congestion. ARR and FTR revenues hedged more than 100 percent of the total congestion costs in the Day-Ahead Energy Market and the balancing energy market within PJM for the 2008 to 2009 planning period. For the first ten months of the 2009 to 2010 planning period, ARR and FTR revenue hedged 95.4 percent of the total congestion costs within PJM.⁶ FTRs were paid at 100 percent of the target allocation for the 2008 to 2009 planning year and 98.7 percent of the target allocation level for the first ten months of the 2009 to 2010 planning period. Revenue adequacy for a planning period is not final until the end of the period.

There are other ways to evaluate the effectiveness of ARRs as a hedge. The value of ARRs and ARRs converted to self scheduled FTRs was 4.3 percent of total energy charges to load for the first three months of 2010.

One constraint accounted for nearly half of total congestion costs in the first three months of 2010 and the top five constraints accounted for 86

⁶ See the 2010 Quarterly State of the Market Report for PJM: January through March, Section 8, "Financial Transmission and Auction Revenue Rights," at Table 8-14, "ARR and FTR congestion hedging: Planning periods 2008 to 2009 and 2009 to 2010."

percent of total congestion costs. The AP South Interface was the largest contributor to congestion costs in the first three months of 2010.

The congestion metric requires careful review. Net congestion, which includes both load congestion payments and generation congestion credits, is not a good measure of the congestion costs paid by load from the perspective of the wholesale market.⁷ While total congestion costs represent the overall charge or credit to a zone, the components of congestion costs measure the extent to which load or generation bear total congestion costs. Load congestion payments, when positive, measure the total congestion cost to load in an area. Load congestion payments, when negative, measure the total congestion credit to load in an area. Negative load congestion payments result when load is on the lower priced side of a constraint or constraints. For example, congestion across the AP South interface means lower prices in western control zones and higher prices in eastern and southern control zones. Load in western control zones will benefit from lower prices and receive a congestion credit (negative load congestion payment). Load in the eastern and southern control zones will incur a congestion charge (positive load congestion payment). The reverse is true for generation congestion credits. Generation congestion credits, when positive, measure the total congestion credit to generation in an area. Generation congestion credits, when negative, measure the total congestion cost to generation in an area. This is a cost only in the sense that revenues to generators in the area are lower, by the amount of the congestion cost, than they would have been if they had been paid LMP without a congestion component, the system marginal price. Negative generation congestion credits result when generation is on the lower priced side of a constraint or constraints. For example, congestion across the AP South interface means lower prices in the western control zones and higher prices in the eastern and southern control zones. Generation in the western control zones will receive lower prices and incur a congestion charge (negative generation congestion credit). Generation in the eastern and southern control zones will receive higher prices and receive a congestion credit (positive generation congestion credit).

As an example, total congestion costs in PJM in the first three months of 2010 were \$345.3 million, which was comprised of load congestion payments of \$91.3 million, negative generation credits of \$270.4 million and negative explicit congestion of \$16.4 million (see Table 7-2).

⁷ The actual congestion payments by retail customers are a function of retail ratemaking policies and may or may not reflect an offset for congestion credits.

Congestion

Total Calendar Year Congestion

Table 7-1 Total annual PJM congestion (Dollars (Millions)): Calendar years 2003 through March 2010 (See 2009 SOM, Table 7-1)

	Congestion Charges	Percent Change	Total PJM Billing	Percent of PJM Billing
2003	\$464	NA	\$6,900	7%
2004	\$750	62%	\$8,700	9%
2005	\$2,092	179%	\$22,630	9%
2006	\$1,603	(23%)	\$20,945	8%
2007	\$1,846	15%	\$30,556	6%
2008	\$2,117	15%	\$34,306	6%
2009	\$719	(66%)	\$26,550	3%
2010 (Jan - Mar)	\$345	NA	\$8,415	4%
Total	\$9,591		\$159,002	6%

Table 7-2 Total annual PJM congestion costs by category (Dollars (Millions)): January through March 2009 and 2010 (See 2009 SOM, Table 7-2)

Year	Congestion Costs (Millions)			Total
	Load Payments	Generation Credits	Explicit	
2009 (Jan - Mar)	\$106.0	(\$227.3)	(\$26.5)	\$306.9
2010 (Jan - Mar)	\$91.3	(\$270.4)	(\$16.4)	\$345.3

Monthly Congestion

Table 7-3 Monthly PJM congestion charges (Dollars (Millions)): Calendar years 2008 through March 2010 (See 2009 SOM, Table 7-3)

	2008	2009	2010
Jan	\$231.0	\$149.3	\$218.5
Feb	\$168.1	\$83.0	\$106.4
Mar	\$86.4	\$74.6	\$20.4
Apr	\$126.2	\$25.6	
May	\$182.8	\$25.9	
Jun	\$436.4	\$49.8	
Jul	\$359.8	\$39.4	
Aug	\$127.4	\$72.1	
Sep	\$124.8	\$23.9	
Oct	\$102.2	\$42.7	
Nov	\$93.0	\$36.3	
Dec	\$78.4	\$96.4	
Total	\$2,116.6	\$719.0	\$345.3

Congestion Component of LMP

Table 7-4 Annual average congestion component of LMP: January through March 2009 and 2010 (See 2009 SOM, Table 7-4)

Control Zone	2009 (Jan - Mar)		2010 (Jan - Mar)	
	Day Ahead	Real Time	Day Ahead	Real Time
AECO	\$4.63	\$4.68	\$2.11	\$1.73
AEP	(\$4.64)	(\$4.29)	(\$3.49)	(\$2.98)
AP	\$0.42	\$1.97	(\$1.04)	(\$0.33)
BGE	\$5.79	\$4.85	\$4.64	\$4.06
ComEd	(\$8.40)	(\$9.76)	(\$6.12)	(\$6.15)
DAY	(\$6.27)	(\$5.72)	(\$4.79)	(\$4.15)
DLCO	(\$8.88)	(\$8.13)	(\$4.39)	(\$2.67)
Dominion	\$4.46	\$4.19	\$5.61	\$4.52
DPL	\$5.10	\$5.19	\$2.36	\$2.18
JCPL	\$4.18	\$4.27	\$1.77	\$1.34
Met-Ed	\$4.61	\$4.36	\$2.32	\$1.71
PECO	\$4.34	\$3.99	\$2.14	\$1.72
PENELEC	(\$0.37)	(\$0.04)	(\$1.97)	(\$1.93)
Pepco	\$5.79	\$5.20	\$5.69	\$4.86
PPL	\$4.30	\$4.16	\$2.23	\$1.47
PSEG	\$4.78	\$5.04	\$2.76	\$3.31
RECO	\$3.44	\$3.81	\$1.69	\$0.44

Congested Facilities

Congestion by Facility Type and Voltage

Table 7-5 Congestion summary (By facility type): January through March 2010 (See 2009 SOM, Table 7-5)

Type	Congestion Costs (Millions)										
	Day Ahead				Balancing				Grand Total	Event Hours	
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		Day Ahead	Real Time
Flowgate	(\$1.3)	(\$11.6)	\$3.0	\$13.4	(\$0.1)	\$0.2	(\$0.8)	(\$1.1)	\$12.3	1,773	172
Interface	\$58.1	(\$228.0)	(\$2.1)	\$284.0	\$7.3	\$4.5	\$1.7	\$4.6	\$288.6	3,096	1,151
Line	\$29.8	(\$37.0)	\$10.1	\$77.0	(\$13.0)	\$8.0	(\$29.5)	(\$50.5)	\$26.5	13,053	2,130
Transformer	\$9.4	(\$5.7)	\$1.0	\$16.0	\$0.3	(\$0.5)	(\$0.6)	\$0.2	\$16.3	1,626	315
Unclassified	\$0.7	(\$0.2)	\$0.7	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	NA	NA
Total	\$96.7	(\$282.6)	\$12.7	\$392.1	(\$5.4)	\$12.2	(\$29.1)	(\$46.8)	\$345.3	19,548	3,768

Table 7-6 Congestion summary (By facility type): January through March 2009 (See 2009 SOM, Table 7-6)

Type	Congestion Costs (Millions)									Event Hours	
	Day Ahead				Balancing				Grand Total	Day Ahead	Real Time
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total			
Flowgate	\$4.0	(\$7.0)	\$7.4	\$18.4	(\$6.2)	\$3.1	(\$37.7)	(\$47.0)	(\$28.6)	693	1,006
Interface	\$27.3	(\$133.7)	\$1.4	\$162.4	\$3.0	(\$2.9)	\$1.8	\$7.7	\$170.1	1,901	580
Line	\$43.5	(\$80.3)	\$22.1	\$145.9	(\$3.2)	\$0.1	(\$14.9)	(\$18.2)	\$127.7	13,439	2,566
Transformer	\$43.9	\$0.0	\$16.7	\$60.5	(\$7.8)	(\$6.3)	(\$23.6)	(\$25.2)	\$35.4	2,498	1,233
Unclassified	\$1.6	(\$0.3)	\$0.4	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	NA	NA
Total	\$120.2	(\$221.3)	\$47.9	\$389.5	(\$14.2)	(\$6.0)	(\$74.4)	(\$82.6)	\$306.9	18,531	5,385

Table 7-7 Congestion summary (By facility voltage): January through March 2010 (See 2009 SOM, Table 7-7)

Voltage (kV)	Congestion Costs (Millions)									Event Hours	
	Day Ahead				Balancing				Grand Total	Day Ahead	Real Time
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total			
765	\$0.5	(\$1.7)	\$0.5	\$2.7	(\$1.1)	(\$0.1)	(\$3.2)	(\$4.2)	(\$1.5)	56	74
500	\$62.6	(\$232.3)	(\$1.4)	\$293.4	\$6.6	\$2.7	\$0.6	\$4.5	\$297.9	3,440	1,399
345	\$3.9	(\$18.6)	\$3.8	\$26.3	(\$3.7)	\$2.2	(\$14.7)	(\$20.6)	\$5.7	2,047	734
230	\$8.5	(\$7.3)	\$5.7	\$21.6	(\$6.0)	\$6.9	(\$9.4)	(\$22.3)	(\$0.7)	4,600	526
138	\$15.1	(\$24.2)	\$3.5	\$42.7	(\$1.6)	(\$0.2)	(\$2.3)	(\$3.7)	\$39.0	7,395	917
115	\$5.0	\$1.8	\$0.1	\$3.3	\$0.2	\$0.6	(\$0.1)	(\$0.4)	\$2.9	407	111
69	\$0.3	(\$0.1)	(\$0.0)	\$0.4	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.4	1,427	7
34	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	18	0
12	\$0.1	\$0.1	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	158	0
Unclassified	\$0.7	(\$0.2)	\$0.7	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	NA	NA
Total	\$96.7	(\$282.6)	\$12.7	\$392.1	(\$5.4)	\$12.2	(\$29.1)	(\$46.8)	\$345.3	19,548	3,768

Table 7-8 Congestion summary (By facility voltage): January through March 2009 (See 2009 SOM, Table 7-8)

Voltage (kV)	Congestion Costs (Millions)										
	Day Ahead				Balancing				Event Hours		
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	Grand Total	Day Ahead	Real Time
765	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0
500	\$57.6	(\$149.4)	\$8.5	\$215.5	\$2.1	(\$10.8)	(\$5.7)	\$7.3	\$222.8	4,029	1,349
345	\$19.4	(\$17.5)	\$25.2	\$62.1	(\$3.7)	\$0.8	(\$32.7)	(\$37.3)	\$24.8	3,256	896
230	\$9.2	(\$6.3)	\$2.5	\$18.0	(\$0.6)	\$1.8	(\$1.5)	(\$3.9)	\$14.1	2,835	419
138	\$28.4	(\$48.1)	\$11.2	\$87.7	(\$10.8)	\$1.6	(\$34.3)	(\$46.6)	\$41.0	6,703	2,423
115	\$1.2	(\$0.0)	\$0.1	\$1.3	(\$0.0)	\$0.0	(\$0.1)	(\$0.2)	\$1.1	627	127
69	\$2.8	\$0.3	\$0.1	\$2.5	(\$1.2)	\$0.6	(\$0.0)	(\$1.8)	\$0.7	1,081	171
34	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0
12	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0
Unclassified	\$1.6	(\$0.3)	\$0.4	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	NA	NA
Total	\$120.2	(\$221.3)	\$47.9	\$389.5	(\$14.2)	(\$6.0)	(\$74.4)	(\$82.6)	\$306.9	18,531	5,385

Constraint Duration
Table 7-9 Top 25 constraints with frequent occurrence: January through March 2009 and 2010 (See 2009 SOM, Table 7-9)

No.	Constraint	Type	Event Hours						Percent of Annual Hours					
			Day Ahead			Real Time			Day Ahead			Real Time		
			2009	2010	Change	2009	2010	Change	2009	2010	Change	2009	2010	Change
1	Athenia - Saddlebrook	Line	769	1,779	1,010	108	273	165	36%	82%	47%	5%	13%	8%
2	AP South	Interface	1,088	1,255	167	216	735	519	50%	58%	8%	10%	34%	24%
3	East Frankfort - Crete	Line	912	835	(77)	66	418	352	42%	39%	(4%)	3%	19%	16%
4	5004/5005 Interface	Interface	256	806	550	191	294	103	12%	37%	25%	9%	14%	5%
5	Waterman - West Dekalb	Line	424	812	388	9	159	150	20%	38%	18%	0%	7%	7%
6	Rising	Flowgate	0	582	582	3	32	29	0%	27%	27%	0%	1%	1%
7	Pleasant Prairie - Zion	Flowgate	0	556	556	45	21	(24)	0%	26%	26%	2%	1%	(1%)
8	AEP-DOM	Interface	96	452	356	56	76	20	4%	21%	16%	3%	4%	1%
9	Bedington - Black Oak	Interface	58	519	461	55	9	(46)	3%	24%	21%	3%	0%	(2%)
10	Burlington - Croydon	Line	511	512	1	0	13	13	24%	24%	0%	0%	1%	1%
11	Bayonne - PVSC	Line	102	507	405	0	0	0	5%	23%	19%	0%	0%	0%
12	Hawthorn - Waldwick	Line	0	454	454	0	36	36	0%	21%	21%	0%	2%	2%
13	Tiltonville - Windsor	Line	0	437	437	0	0	0	0%	20%	20%	0%	0%	0%
14	Bellehaven - Tasley	Line	18	429	411	0	0	0	1%	20%	19%	0%	0%	0%
15	Tiltonville - Windsor	Line	348	260	(88)	87	139	52	16%	12%	(4%)	4%	6%	2%
16	Crescent	Transformer	0	310	310	1	58	57	0%	14%	14%	0%	3%	3%
17	Pleasant Valley - Belvidere	Line	477	274	(203)	78	68	(10)	22%	13%	(9%)	4%	3%	(0%)
18	Sammis - Wylie Ridge	Line	615	305	(310)	101	37	(64)	28%	14%	(14%)	5%	2%	(3%)
19	Athenia - Kuller Road	Line	2	335	333	0	0	0	0%	16%	15%	0%	0%	0%
20	Lindenwold - Stratford	Line	181	318	137	0	0	0	8%	15%	6%	0%	0%	0%
21	Pinehill - Stratford	Line	530	293	(237)	0	0	0	25%	14%	(11%)	0%	0%	0%
22	State Line - Wolf Lake	Flowgate	38	269	231	14	0	(14)	2%	12%	11%	1%	0%	(1%)
23	Cloverdale - Lexington	Line	571	154	(417)	220	94	(126)	26%	7%	(19%)	10%	4%	(6%)
24	Hawthorn - Hinchmans Ave	Line	0	209	209	0	35	35	0%	10%	10%	0%	2%	2%
25	Albright - Snowy Creek	Line	0	226	226	0	2	2	0%	10%	10%	0%	0%	0%

Table 7-10 Top 25 constraints with largest year-to-year change in occurrence: January through March 2009 and 2010 (See 2009 SOM, Table 7-10)

No.	Constraint	Type	Event Hours						Percent of Annual Hours					
			Day Ahead			Real Time			Day Ahead			Real Time		
			2009	2010	Change	2009	2010	Change	2009	2010	Change	2009	2010	Change
1	Kammer	Transformer	1,021	0	(1,021)	504	0	(504)	47%	0%	(47%)	23%	0%	(23%)
2	Athenia - Saddlebrook	Line	769	1,779	1,010	108	273	165	36%	82%	47%	5%	13%	8%
3	Kammer - Ormet	Line	514	0	(514)	509	0	(509)	24%	0%	(24%)	24%	0%	(24%)
4	Ruth - Turner	Line	514	18	(496)	245	11	(234)	24%	1%	(23%)	11%	1%	(11%)
5	Wylie Ridge	Transformer	354	0	(354)	335	2	(333)	16%	0%	(16%)	16%	0%	(15%)
6	AP South	Interface	1,088	1,255	167	216	735	519	50%	58%	8%	10%	34%	24%
7	5004/5005 Interface	Interface	256	806	550	191	294	103	12%	37%	25%	9%	14%	5%
8	Rising	Flowgate	0	582	582	3	32	29	0%	27%	27%	0%	1%	1%
9	Leonia - New Milford	Line	632	68	(564)	14	0	(14)	29%	3%	(26%)	1%	0%	(1%)
10	Dunes Acres - Michigan City	Flowgate	429	142	(287)	270	3	(267)	20%	7%	(13%)	13%	0%	(12%)
11	Cloverdale - Lexington	Line	571	154	(417)	220	94	(126)	26%	7%	(19%)	10%	4%	(6%)
12	Waterman - West Dekalb	Line	424	812	388	9	159	150	20%	38%	18%	0%	7%	7%
13	Pleasant Prairie - Zion	Flowgate	0	556	556	45	21	(24)	0%	26%	26%	2%	1%	(1%)
14	Hawthorn - Waldwick	Line	0	454	454	0	36	36	0%	21%	21%	0%	2%	2%
15	Glidden - West Dekalb	Line	582	108	(474)	0	0	0	27%	5%	(22%)	0%	0%	0%
16	Tiltonville - Windsor	Line	0	437	437	0	0	0	0%	20%	20%	0%	0%	0%
17	Bedington - Black Oak	Interface	58	519	461	55	9	(46)	3%	24%	21%	3%	0%	(2%)
18	Bellehaven - Tasley	Line	18	429	411	0	0	0	1%	20%	19%	0%	0%	0%
19	Bayonne - PVSC	Line	102	507	405	0	0	0	5%	23%	19%	0%	0%	0%
20	Plainsboro - Trenton	Line	275	0	(275)	113	0	(113)	13%	0%	(13%)	5%	0%	(5%)
21	AEP-DOM	Interface	96	452	356	56	76	20	4%	21%	16%	3%	4%	1%
22	Sammis - Wylie Ridge	Line	615	305	(310)	101	37	(64)	28%	14%	(14%)	5%	2%	(3%)
23	Crescent	Transformer	0	310	310	1	58	57	0%	14%	14%	0%	3%	3%
24	West	Interface	380	56	(324)	55	37	(18)	18%	3%	(15%)	3%	2%	(1%)
25	Bedington	Transformer	236	0	(236)	103	0	(103)	11%	0%	(11%)	5%	0%	(5%)

Constraint Costs

Table 7-11 Top 25 constraints affecting annual PJM congestion costs (By facility): January through March 2010 (See 2009 SOM, Table 7-11)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Percent of Total PJM Congestion Costs 2010
				Day Ahead				Balancing				Grand Total		
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total			
1	AP South	Interface	500	\$13.4	(\$156.4)	(\$1.2)	\$168.6	\$5.1	\$4.5	\$1.2	\$1.7	\$170.3	49%	
2	AEP-DOM	Interface	500	\$9.8	(\$37.5)	\$0.8	\$48.1	\$0.2	(\$1.2)	\$0.1	\$1.6	\$49.7	14%	
3	5004/5005 Interface	Interface	500	\$26.3	(\$16.9)	(\$0.9)	\$42.2	\$1.3	\$1.3	\$0.2	\$0.3	\$42.5	12%	
4	Bedington - Black Oak	Interface	500	\$6.0	(\$17.2)	(\$0.8)	\$22.4	\$0.4	(\$0.5)	\$0.1	\$0.9	\$23.3	7%	
5	East Frankfort - Crete	Line	ComEd	\$3.4	(\$11.8)	\$1.7	\$16.9	(\$2.5)	\$0.8	(\$4.2)	(\$7.5)	\$9.5	3%	
6	Crescent	Transformer	DLCO	\$2.9	(\$2.0)	\$0.2	\$5.1	\$0.0	(\$0.6)	(\$0.2)	\$0.3	\$5.4	2%	
7	Pleasant Prairie - Zion	Flowgate	Midwest ISO	(\$2.4)	(\$5.9)	\$1.5	\$5.1	(\$0.5)	\$1.0	(\$8.6)	(\$10.2)	(\$5.1)	(1%)	
8	Mount Storm - Pruntytown	Line	AP	\$1.3	(\$2.7)	\$0.1	\$4.1	(\$0.2)	(\$0.7)	\$0.1	\$0.6	\$4.7	1%	
9	Athenia - Saddlebrook	Line	PSEG	\$3.4	(\$2.7)	\$5.6	\$11.6	(\$6.7)	\$4.3	(\$5.0)	(\$16.0)	(\$4.4)	(1%)	
10	Rising	Flowgate	Midwest ISO	\$0.2	(\$3.5)	\$0.4	\$4.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$4.1	1%	
11	Hawthorn - Waldwick	Line	PSEG	\$0.1	(\$0.0)	(\$0.0)	\$0.0	(\$0.6)	\$0.9	(\$2.5)	(\$4.0)	(\$4.0)	(1%)	
12	Baker - Broadford	Line	AEP	(\$0.0)	(\$0.3)	\$0.0	\$0.4	(\$1.1)	(\$0.1)	(\$3.2)	(\$4.2)	(\$3.8)	(1%)	
13	Kanawha River	Transformer	AEP	\$1.3	(\$1.6)	\$0.2	\$3.1	\$0.0	(\$0.1)	(\$0.0)	\$0.0	\$3.2	1%	
14	West	Interface	500	\$2.5	(\$0.1)	\$0.0	\$2.7	\$0.3	\$0.4	\$0.2	\$0.1	\$2.8	1%	
15	Culloden - Wyoming	Line	AEP	\$0.5	(\$1.4)	\$0.4	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	1%	
16	Kanawha - Kincaid	Line	AEP	\$1.4	(\$0.8)	\$0.2	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	1%	
17	Hawthorn - Hinchmans Ave	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.2)	\$0.3	(\$1.5)	(\$2.0)	(\$2.2)	(1%)	
18	Burnham - Munster	Line	ComEd	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	\$0.7	(\$1.3)	(\$2.2)	(\$2.2)	(1%)	
19	Cloverdale - Lexington	Line	AEP	\$1.5	(\$0.6)	\$0.2	\$2.4	(\$0.2)	(\$0.5)	(\$0.5)	(\$0.2)	\$2.1	1%	
20	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.6	(\$1.1)	\$0.4	\$2.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$2.1	1%	
21	Waterman - West Dekalb	Line	ComEd	(\$1.0)	(\$2.9)	\$0.3	\$2.2	\$0.2	\$0.2	(\$0.4)	(\$0.4)	\$1.9	1%	
22	Collier - Elwyn	Line	DLCO	\$1.8	\$0.1	\$0.0	\$1.8	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$1.8	1%	
23	Sammis - Wylie Ridge	Line	AP	\$2.5	\$0.4	\$0.1	\$2.3	(\$0.4)	(\$0.2)	(\$0.3)	(\$0.5)	\$1.7	0%	
24	Harrison - Pruntytown	Line	500	\$1.1	(\$0.8)	\$0.3	\$2.1	(\$0.4)	(\$0.5)	(\$0.6)	(\$0.5)	\$1.6	0%	
25	Unclassified	Unclassified	Unclassified	\$0.7	(\$0.2)	\$0.7	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	0%	

Table 7-12 Top 25 constraints affecting annual PJM congestion costs (By facility): January through March 2009 (See 2009 SOM, Table 7-12)

No.	Constraint	Type	Location	Congestion Costs (Millions)									Percent of Total PJM Congestion Costs 2009	
				Load Payments	Day Ahead			Total	Load Payments	Balancing				Grand Total
					Generation Credits	Explicit	Generation Credits			Explicit	Total			
1	AP South	Interface	500	\$3.3	(\$91.7)	(\$0.3)	\$94.6	\$2.6	(\$3.1)	\$2.0	\$7.7	\$102.3	33%	
2	West	Interface	500	\$17.7	(\$21.4)	\$0.5	\$39.6	\$0.3	(\$0.1)	(\$0.1)	\$0.4	\$40.0	13%	
3	5004/5005 Interface	Interface	500	\$5.2	(\$14.5)	\$0.8	\$20.5	\$1.0	\$0.3	\$0.0	\$0.7	\$21.2	7%	
4	Mount Storm - Pruntytown	Line	AP	\$1.7	(\$16.4)	\$0.4	\$18.6	\$1.1	(\$0.7)	(\$0.2)	\$1.7	\$20.3	7%	
5	Kammer	Transformer	500	\$21.9	\$7.8	\$5.3	\$19.4	(\$1.8)	(\$4.3)	(\$5.5)	(\$3.1)	\$16.3	5%	
6	East Frankfort - Crete	Line	ComEd	\$3.3	(\$8.1)	\$5.5	\$16.9	(\$0.0)	(\$0.1)	(\$1.7)	(\$1.6)	\$15.3	5%	
7	Cloverdale - Lexington	Line	AEP	\$6.0	(\$3.7)	\$1.5	\$11.3	(\$0.0)	(\$2.6)	(\$1.8)	\$0.7	\$12.0	4%	
8	Pana North	Flowgate	Midwest ISO	\$0.0	(\$0.3)	\$0.3	\$0.6	(\$0.4)	\$0.9	(\$10.5)	(\$11.8)	(\$11.1)	(4%)	
9	Ruth - Turner	Line	AEP	\$2.2	(\$5.9)	\$0.5	\$8.6	(\$1.2)	(\$0.6)	(\$0.6)	(\$1.2)	\$7.4	2%	
10	Pleasant Valley - Belvidere	Line	ComEd	(\$1.3)	(\$8.4)	\$0.8	\$7.8	\$0.8	\$0.4	(\$1.2)	(\$0.9)	\$6.9	2%	
11	Kanawha River	Transformer	AEP	\$2.0	(\$3.6)	\$0.3	\$5.8	\$0.1	(\$0.5)	(\$0.1)	\$0.5	\$6.3	2%	
12	Kammer - Ormet	Line	AEP	\$4.2	(\$4.1)	(\$0.1)	\$8.2	(\$1.6)	\$0.5	(\$0.0)	(\$2.2)	\$6.1	2%	
13	Samms - Wylie Ridge	Line	AP	\$3.1	(\$2.7)	\$3.4	\$9.1	(\$0.8)	(\$0.3)	(\$2.6)	(\$3.2)	\$5.9	2%	
14	Kanawha - Kincaid	Line	AEP	\$1.9	(\$3.5)	\$0.2	\$5.6	\$0.0	\$0.0	\$0.0	\$0.0	\$5.6	2%	
15	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.4	(\$1.3)	\$0.6	\$2.3	(\$2.0)	\$0.4	(\$5.4)	(\$7.8)	(\$5.6)	(2%)	
16	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$3.4	(\$4.2)	\$5.5	\$13.1	(\$3.9)	(\$0.0)	(\$14.7)	(\$18.5)	(\$5.4)	(2%)	
17	Kanawha River - Bradley	Line	AEP	(\$0.1)	(\$4.6)	\$0.3	\$4.7	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$4.7	2%	
18	Mount Storm	Transformer	AP	\$0.7	(\$3.3)	(\$0.1)	\$3.9	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$3.9	1%	
19	Bedington - Black Oak	Interface	500	\$0.6	(\$3.5)	\$0.0	\$4.1	(\$0.4)	(\$0.0)	\$0.2	(\$0.3)	\$3.9	1%	
20	Glidden - West Dekalb	Line	ComEd	(\$0.3)	(\$3.5)	\$0.3	\$3.5	\$0.0	\$0.0	\$0.0	\$0.0	\$3.5	1%	
21	Breed - Wheatland	Line	AEP	(\$0.1)	(\$3.2)	\$0.4	\$3.5	\$0.0	\$0.0	\$0.0	\$0.0	\$3.5	1%	
22	Sliver Lake - Cherry Valley	Line	ComEd	(\$0.1)	(\$2.4)	\$0.5	\$2.8	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$2.8	1%	
23	Bedington - Harmony	Line	AP	\$1.1	(\$1.2)	\$0.5	\$2.8	\$0.0	\$0.0	\$0.0	\$0.0	\$2.8	1%	
24	AEP-DOM	Interface	500	\$0.4	(\$2.7)	\$0.3	\$3.4	(\$0.5)	(\$0.0)	(\$0.3)	(\$0.8)	\$2.6	1%	
25	Burnham - Munster	Line	ComEd	\$0.5	(\$0.9)	\$1.1	\$2.5	\$0.0	\$0.0	\$0.0	\$0.0	\$2.5	1%	

Congestion-Event Summary for Midwest ISO Flowgates
Table 7-13 Top congestion cost impacts from Midwest ISO flowgates affecting PJM dispatch (By facility): January through March 2010 (See 2009 SOM, Table 7-13)

No.	Constraint	Congestion Costs (Millions)										Event Hours	
		Day Ahead				Balancing				Grand Total	Day Ahead	Real Time	
		Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total				
1	Pleasant Prairie - Zion	(\$2.4)	(\$5.9)	\$1.5	\$5.1	(\$0.5)	\$1.0	(\$8.6)	(\$10.2)	(\$5.1)	556	21	
2	Rising	\$0.2	(\$3.5)	\$0.4	\$4.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$4.1	582	32	
3	Dunes Acres - Michigan City	\$0.6	(\$1.1)	\$0.4	\$2.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$2.1	142	3	
4	State Line - Wolf Lake	\$0.3	(\$0.5)	\$0.5	\$1.2	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	269	0	
5	Crete - St Johns Tap	\$0.1	(\$0.2)	\$0.1	\$0.4	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.3	129	1	
6	Bunsonville - Eugene	(\$0.0)	(\$0.2)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	24	0	
7	Burr Oak	\$0.0	(\$0.0)	\$0.0	\$0.1	(\$0.0)	\$0.1	(\$0.1)	(\$0.2)	(\$0.2)	20	40	
8	Benton Harbor - Palisades	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	0	1	
9	Powerton Jct. - Lilly	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	0	15	
10	Eugene - Bunsonville	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	0	9	
11	Oak Grove - Galesburg	(\$0.1)	(\$0.2)	\$0.1	\$0.2	\$0.0	\$0.0	(\$0.2)	(\$0.2)	\$0.0	51	38	
12	State Line - Roxana	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	0	6	
13	Coffeen North - Ramsey	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	3	
14	Lanesville	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	0	2	
15	Krendale - Seneca	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	0	1	

Table 7-14 Top congestion cost impacts from Midwest ISO flowgates affecting PJM dispatch (By facility): January through March 2009 (See 2009 SOM, Table 7-14)

No.	Constraint	Congestion Costs (Millions)										Event Hours	
		Load Payments	Day Ahead			Total	Balancing			Grand Total	Day Ahead	Real Time	
			Generation Credits	Explicit	Explicit		Load Payments	Generation Credits	Explicit				Total
1	Pana North	\$0.0	(\$0.3)	\$0.3	\$0.6	(\$0.4)	\$0.9	(\$10.5)	(\$11.8)	(\$11.1)	92	247	
2	Schahfer - Burr Oak	\$0.4	(\$1.3)	\$0.6	\$2.3	(\$2.0)	\$0.4	(\$5.4)	(\$7.8)	(\$5.6)	62	81	
3	Dunes Acres - Michigan City	\$3.4	(\$4.2)	\$5.5	\$13.1	(\$3.9)	(\$0.0)	(\$14.7)	(\$18.5)	(\$5.4)	429	270	
4	Pleasant Prairie - Zion	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.3	\$0.5	(\$1.9)	(\$2.2)	(\$2.1)	0	45	
5	Breed - Wheatland	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	(\$1.3)	(\$1.7)	(\$1.7)	0	72	
6	Eugene - Bunsonville	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.1	(\$1.0)	(\$1.2)	(\$1.2)	0	30	
7	Oak Grove - Galesburg	(\$0.0)	(\$0.2)	\$0.1	\$0.2	\$0.3	\$0.4	(\$1.2)	(\$1.4)	(\$1.1)	0	175	
8	Crete - St Johns Tap	\$0.1	(\$0.7)	\$0.3	\$1.1	(\$0.1)	\$0.0	(\$0.3)	(\$0.4)	\$0.7	48	3	
9	Lanesville	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	(\$0.4)	(\$0.4)	0	10	
10	Pierce - Foster	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.3	(\$0.0)	(\$0.4)	(\$0.4)	0	4	
11	Burr Oak	\$0.1	(\$0.2)	\$0.4	\$0.7	(\$0.2)	\$0.1	(\$0.6)	(\$0.9)	(\$0.2)	24	30	
12	State Line - Wolf Lake	\$0.0	(\$0.1)	\$0.1	\$0.2	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	\$0.1	38	14	
13	State Line - Roxana	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	0	6	
14	Rising	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	0	3	
15	Havana - Ipava	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	9	
16	Krendale - Seneca	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	2	
17	Ontario Hydro - NYISO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	0	2	
18	Whitestown - Guion	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	0	3	
19	State Line	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	

Congestion-Event Summary for the 500 kV System

Table 7-15 Regional constraints summary (By facility): January through March 2010 (See 2009 SOM, Table 7-15)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total	Day Ahead	Real Time	
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total				
1	AP South	Interface	500	\$13.4	(\$156.4)	(\$1.2)	\$168.6	\$5.1	\$4.5	\$1.2	\$1.7	\$170.3	1,255	735	
2	AEP-DOM	Interface	500	\$9.8	(\$37.5)	\$0.8	\$48.1	\$0.2	(\$1.2)	\$0.1	\$1.6	\$49.7	452	76	
3	5004/5005 Interface	Interface	500	\$26.3	(\$16.9)	(\$0.9)	\$42.2	\$1.3	\$1.3	\$0.2	\$0.3	\$42.5	806	294	
4	Bedington - Black Oak	Interface	500	\$6.0	(\$17.2)	(\$0.8)	\$22.4	\$0.4	(\$0.5)	\$0.1	\$0.9	\$23.3	519	9	
5	West	Interface	500	\$2.5	(\$0.1)	\$0.0	\$2.7	\$0.3	\$0.4	\$0.2	\$0.1	\$2.8	56	37	
6	Harrison - Pruntytown	Line	500	\$1.1	(\$0.8)	\$0.3	\$2.1	(\$0.4)	(\$0.5)	(\$0.6)	(\$0.5)	\$1.6	75	86	
7	Harrison Tap - North Longview	Line	500	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	6	0	
8	Central	Interface	500	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	8	0	

Table 7-16 Regional constraints summary (By facility): January through March 2009 (See 2009 SOM, Table 7-16)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total	Day Ahead	Real Time	
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total				
1	AP South	Interface	500	\$3.3	(\$91.7)	(\$0.3)	\$94.6	\$2.6	(\$3.1)	\$2.0	\$7.7	\$102.3	1,088	216	
2	West	Interface	500	\$17.7	(\$21.4)	\$0.5	\$39.6	\$0.3	(\$0.1)	(\$0.1)	\$0.4	\$40.0	380	55	
3	5004/5005 Interface	Interface	500	\$5.2	(\$14.5)	\$0.8	\$20.5	\$1.0	\$0.3	\$0.0	\$0.7	\$21.2	256	191	
4	Kammer	Transformer	500	\$21.9	\$7.8	\$5.3	\$19.4	(\$1.8)	(\$4.3)	(\$5.5)	(\$3.1)	\$16.3	1,021	504	
5	Bedington - Black Oak	Interface	500	\$0.6	(\$3.5)	\$0.0	\$4.1	(\$0.4)	(\$0.0)	\$0.2	(\$0.3)	\$3.9	58	55	
6	AEP-DOM	Interface	500	\$0.4	(\$2.7)	\$0.3	\$3.4	(\$0.5)	(\$0.0)	(\$0.3)	(\$0.8)	\$2.6	96	56	
7	East	Interface	500	\$0.1	(\$0.0)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	11	0	
8	Central	Interface	500	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.0	12	7	
9	Harrison - Pruntytown	Line	500	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	0	3	

Zonal Congestion

Summary

Table 7-17 Congestion cost summary (By control zone): January through March 2010 (See 2009 SOM, Table 7-17)

Control Zone	Congestion Costs (Millions)								Grand Total
	Day Ahead				Balancing				
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	
AECO	\$5.2	\$2.5	\$0.0	\$2.7	\$0.5	(\$0.0)	(\$0.0)	\$0.5	\$3.2
AEP	(\$16.0)	(\$87.0)	\$3.0	\$73.9	(\$6.6)	\$3.6	(\$4.2)	(\$14.4)	\$59.6
AP	(\$16.0)	(\$83.5)	(\$2.0)	\$65.5	\$2.4	\$2.8	\$1.6	\$1.3	\$66.8
BGE	\$37.6	\$28.3	\$1.6	\$10.9	\$3.8	(\$1.5)	(\$1.5)	\$3.8	\$14.7
ComEd	(\$86.5)	(\$151.6)	(\$0.8)	\$64.3	(\$2.7)	\$4.0	(\$2.3)	(\$9.1)	\$55.2
DAY	(\$3.7)	(\$7.1)	(\$0.1)	\$3.2	\$0.0	\$0.5	\$0.1	(\$0.4)	\$2.8
DLCO	(\$29.8)	(\$46.8)	(\$0.1)	\$16.9	(\$1.7)	(\$0.8)	(\$0.0)	(\$1.0)	\$15.9
Dominion	\$74.1	\$4.3	\$1.8	\$71.6	\$1.6	\$3.1	(\$1.3)	(\$2.7)	\$68.8
DPL	\$12.0	\$3.4	(\$0.1)	\$8.5	\$0.7	(\$0.4)	\$0.1	\$1.2	\$9.7
External	(\$19.1)	(\$26.7)	(\$2.2)	\$5.4	\$3.3	(\$2.0)	(\$9.2)	(\$3.9)	\$1.5
JCPL	\$10.6	\$3.9	\$0.0	\$6.7	(\$0.0)	(\$0.2)	(\$0.1)	\$0.1	\$6.8
Met-Ed	\$10.2	\$7.3	(\$0.0)	\$2.8	\$0.0	(\$0.5)	(\$0.0)	\$0.5	\$3.3
PECO	\$9.5	\$19.0	\$0.0	(\$9.5)	(\$0.1)	\$0.1	(\$0.0)	(\$0.3)	(\$9.7)
PENELEC	(\$29.7)	(\$61.4)	(\$0.2)	\$31.6	\$4.1	\$0.8	\$0.1	\$3.5	\$35.1
Pepco	\$85.9	\$62.6	\$1.4	\$24.6	(\$3.9)	(\$2.9)	(\$1.6)	(\$2.6)	\$22.1
PPL	\$24.9	\$29.8	\$0.8	(\$4.1)	\$0.8	\$0.4	(\$0.3)	\$0.0	(\$4.1)
PSEG	\$27.1	\$20.2	\$9.6	\$16.5	(\$7.7)	\$5.0	(\$10.6)	(\$23.3)	(\$6.9)
RECO	\$0.6	\$0.1	\$0.0	\$0.5	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.4
Total	\$96.7	(\$282.6)	\$12.7	\$392.1	(\$5.4)	\$12.2	(\$29.1)	(\$46.8)	\$345.3

Table 7-18 Congestion cost summary (By control zone): January through March 2009 (See 2009 SOM, Table 7-18)

Control Zone	Congestion Costs (Millions)								Grand Total
	Day Ahead				Balancing				
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	
AECO	\$13.3	\$5.7	\$0.2	\$7.7	(\$0.9)	\$0.6	\$0.4	(\$1.1)	\$6.6
AEP	(\$35.2)	(\$82.8)	\$6.5	\$54.1	(\$2.7)	\$4.0	(\$7.7)	(\$14.4)	\$39.7
AP	\$8.5	(\$49.5)	\$8.2	\$66.1	(\$4.5)	(\$0.9)	(\$15.8)	(\$19.4)	\$46.7
BGE	\$40.5	\$35.6	\$0.7	\$5.6	\$3.8	(\$3.4)	(\$0.6)	\$6.5	\$12.1
ComEd	(\$99.1)	(\$180.4)	\$0.1	\$81.4	(\$5.9)	(\$1.0)	(\$1.5)	(\$6.4)	\$74.9
DAY	(\$5.6)	(\$9.9)	\$0.1	\$4.4	\$0.6	\$1.3	(\$0.1)	(\$0.8)	\$3.6
DLCO	(\$31.7)	(\$48.9)	(\$0.0)	\$17.1	(\$2.7)	\$3.9	(\$0.0)	(\$6.7)	\$10.5
Dominion	\$35.6	(\$5.4)	\$3.5	\$44.5	\$0.8	(\$4.3)	(\$3.2)	\$1.9	\$46.4
DPL	\$28.0	\$9.8	\$0.3	\$18.5	(\$0.3)	\$1.1	(\$0.3)	(\$1.7)	\$16.8
External	(\$12.7)	(\$32.3)	\$19.2	\$38.8	\$0.3	(\$2.9)	(\$40.7)	(\$37.6)	\$1.2
JCPL	\$27.6	\$10.7	\$0.1	\$17.0	\$0.1	(\$1.6)	(\$0.1)	\$1.5	\$18.5
Met-Ed	\$21.3	\$21.3	\$0.1	\$0.1	(\$0.4)	(\$0.8)	(\$0.1)	\$0.3	\$0.4
PECO	\$8.7	\$20.5	\$0.1	(\$11.7)	(\$0.4)	(\$0.1)	(\$0.0)	(\$0.4)	(\$12.1)
PENELEC	(\$4.4)	(\$21.0)	\$0.4	\$17.0	\$0.9	\$1.2	(\$0.2)	(\$0.4)	\$16.6
Pepco	\$76.7	\$57.6	\$0.9	\$20.1	(\$2.1)	(\$5.3)	(\$0.9)	\$2.3	\$22.4
PPL	\$7.0	\$11.3	\$1.9	(\$2.4)	\$0.2	(\$1.2)	(\$0.0)	\$1.3	(\$1.1)
PSEG	\$40.4	\$36.3	\$5.8	\$9.9	(\$0.9)	\$3.2	(\$3.3)	(\$7.3)	\$2.6
RECO	\$1.4	\$0.0	\$0.1	\$1.4	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.2)	\$1.2
Total	\$120.2	(\$221.3)	\$47.9	\$389.5	(\$14.2)	(\$6.0)	(\$74.4)	(\$82.6)	\$306.9

Details of Regional and Zonal Congestion

Mid-Atlantic Region Congestion-Event Summaries

AECO Control Zone

Table 7-19 AECO Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-19)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time	
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total				
1	5004/5005 Interface	Interface	500	\$3.6	\$1.8	\$0.0	\$1.9	\$0.2	(\$0.0)	(\$0.0)	\$0.3	\$2.1	806	294	
2	East Frankfort - Crete	Line	ComEd	\$0.3	\$0.1	\$0.0	\$0.2	\$0.1	(\$0.0)	(\$0.0)	\$0.1	\$0.3	835	418	
3	AP South	Interface	500	\$0.6	\$0.3	\$0.0	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.3	1,255	735	
4	Athenia - Saddlebrook	Line	PSEG	(\$0.2)	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.1)	\$0.0	\$0.0	(\$0.1)	(\$0.3)	1,779	273	
5	West	Interface	500	\$0.3	\$0.1	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1	\$0.2	56	37	
6	Samms - Wylie Ridge	Line	AP	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	305	37	
7	Graceton - Raphael Road	Line	BGE	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	(\$0.1)	34	25	
8	Bedington - Black Oak	Interface	500	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	519	9	
9	Tiltonville - Windsor	Line	AP	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.1	260	139	
10	Crescent	Transformer	DLCO	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	310	58	
11	Harrison - Pruntytown	Line	500	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	75	86	
12	Cloverdale - Lexington	Line	AEP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	154	94	
13	Doubs	Transformer	AP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	20	33	
14	Atlantic - Larrabee	Line	JCPL	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	88	6	
15	AEP-DOM	Interface	500	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	452	76	
47	Lindenwold - Stratford	Line	AECO	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	318	0	
102	Pinehill - Stratford	Line	AECO	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	293	0	
171	Berlin - Silver Lake	Line	AECO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	3	0	

Table 7-20 AECO Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-20)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit	Generation Credits	Explicit					
1	West	Interface	500	\$4.5	\$2.2	\$0.0	\$2.4	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$2.4	380	55			
2	Kammer	Transformer	500	\$1.5	\$0.7	\$0.0	\$0.9	\$0.1	(\$0.0)	\$0.0	\$0.1	\$1.0	1,021	504			
3	5004/5005 Interface	Interface	500	\$1.8	\$0.9	\$0.0	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$1.0	256	191			
4	Wylie Ridge	Transformer	AP	\$1.8	\$0.9	\$0.0	\$0.9	(\$0.0)	\$0.1	\$0.1	(\$0.0)	\$0.9	354	335			
5	Absecon - Lewis	Line	AECO	\$1.0	\$0.1	\$0.0	\$1.0	(\$1.2)	\$0.5	(\$0.0)	(\$1.7)	(\$0.8)	22	149			
6	AP South	Interface	500	\$0.6	\$0.3	\$0.0	\$0.3	\$0.0	\$0.0	\$0.1	\$0.1	\$0.4	1,088	216			
7	Sammis - Wylie Ridge	Line	AP	\$0.6	\$0.2	\$0.0	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.4	615	101			
8	Cloverdale - Lexington	Line	AEP	\$0.4	\$0.2	\$0.0	\$0.2	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.3	571	220			
9	East Frankfort - Crete	Line	ComEd	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	912	0			
10	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.2	\$0.1	(\$0.0)	\$0.1	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.2	429	270			
11	Lewis - Motts - Cedar	Line	AECO	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	108	0			
12	Tiltonsville - Windsor	Line	AP	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	348	87			
13	Atlantic - Larrabee	Line	JCPL	(\$0.1)	(\$0.0)	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	63	18			
14	Mount Storm - Pruntytown	Line	AP	\$0.2	\$0.1	\$0.0	\$0.1	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.1	455	17			
15	Athenia - Saddlebrook	Line	PSEG	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	769	108			
37	Monroe	Transformer	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	106	0			
38	Clayton - Williams	Line	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	3	0			
51	Shieldalloy - Vineland	Line	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	11	0			
67	Carlls Corner - Sherman Ave	Line	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	9	0			
69	Pinehill - Stratford	Line	AECO	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	530	0			

BGE Control Zone**Table 7-21 BGE Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-21)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time		
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	AP South	Interface	500	\$19.9	\$15.8	\$0.8	\$4.9	\$2.0	(\$0.8)	(\$0.8)	\$2.0	\$7.0	1,255	735		
2	5004/5005 Interface	Interface	500	\$4.3	\$2.2	\$0.2	\$2.3	\$0.2	(\$0.2)	(\$0.1)	\$0.2	\$2.5	806	294		
3	Bedington - Black Oak	Interface	500	\$4.1	\$3.1	\$0.2	\$1.2	\$0.2	(\$0.0)	(\$0.0)	\$0.2	\$1.4	519	9		
4	East Frankfort - Crete	Line	ComEd	\$1.1	\$0.8	\$0.0	\$0.3	\$0.2	(\$0.1)	(\$0.0)	\$0.2	\$0.6	835	418		
5	AEP-DOM	Interface	500	\$3.1	\$2.8	\$0.1	\$0.3	\$0.2	(\$0.0)	(\$0.0)	\$0.2	\$0.5	452	76		
6	West	Interface	500	\$0.6	\$0.4	\$0.0	\$0.3	\$0.2	(\$0.1)	(\$0.0)	\$0.2	\$0.4	56	37		
7	Mount Storm - Pruntytown	Line	AP	\$0.6	\$0.5	\$0.0	\$0.2	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$0.3	87	64		
8	Harrison - Pruntytown	Line	500	\$0.2	\$0.2	\$0.0	\$0.1	\$0.2	(\$0.1)	(\$0.0)	\$0.2	\$0.3	75	86		
9	Graceton - Raphael Road	Line	BGE	\$0.6	\$0.3	\$0.0	\$0.3	\$0.1	\$0.1	(\$0.1)	(\$0.0)	\$0.3	34	25		
10	Doubs	Transformer	AP	\$0.2	\$0.2	\$0.0	\$0.1	\$0.1	(\$0.2)	(\$0.0)	\$0.2	\$0.3	20	33		
11	Samms - Wylie Ridge	Line	AP	\$0.5	\$0.4	\$0.0	\$0.2	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	305	37		
12	Cloverdale - Lexington	Line	AEP	\$0.3	\$0.3	\$0.0	\$0.1	\$0.1	(\$0.0)	(\$0.1)	\$0.1	\$0.2	154	94		
13	Athenia - Saddlebrook	Line	PSEG	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	\$0.0	\$0.0	(\$0.1)	(\$0.2)	1,779	273		
14	Nipetown - Reid	Line	AP	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	75	18		
15	Messic Road - Morgan	Line	AP	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	172	0		
24	Fullerton - Windyedge	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	4	0		
31	Graceton - Safe Harbor	Line	BGE	\$0.2	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	15	1		
46	Brandon Shores - Riverside	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	5	15		
54	Conastone - Otter	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	3	1		
66	Glenarm - Windy Edge	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	5	0		

Table 7-22 BGE Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-22)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit							
1	AP South	Interface	500	\$11.6	\$11.4	\$0.1	\$0.3	\$0.9	(\$0.9)	(\$0.1)	\$1.8	\$2.1	1,088	216			
2	Kammer	Transformer	500	\$4.7	\$3.8	\$0.1	\$1.0	\$0.6	(\$0.5)	(\$0.1)	\$0.9	\$1.9	1,021	504			
3	West	Interface	500	\$8.1	\$6.8	\$0.2	\$1.4	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$1.6	380	55			
4	Wylie Ridge	Transformer	AP	\$3.6	\$3.4	\$0.1	\$0.3	\$0.6	(\$0.7)	(\$0.2)	\$1.2	\$1.5	354	335			
5	5004/5005 Interface	Interface	500	\$1.3	\$0.7	\$0.1	\$0.6	\$0.2	(\$0.2)	(\$0.1)	\$0.4	\$1.0	256	191			
6	Mount Storm - Pruntytown	Line	AP	\$3.1	\$2.9	\$0.0	\$0.2	\$0.3	(\$0.2)	(\$0.0)	\$0.5	\$0.8	455	17			
7	Cloverdale - Lexington	Line	AEP	\$2.1	\$2.0	\$0.0	\$0.2	\$0.2	(\$0.1)	(\$0.0)	\$0.3	\$0.5	571	220			
8	Sammis - Wylie Ridge	Line	AP	\$1.3	\$1.1	\$0.0	\$0.2	\$0.1	(\$0.1)	(\$0.0)	\$0.1	\$0.4	615	101			
9	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.5	\$0.4	\$0.0	\$0.1	\$0.2	(\$0.1)	(\$0.0)	\$0.2	\$0.3	429	270			
10	Bedington - Black Oak	Interface	500	\$0.7	\$0.7	\$0.0	\$0.1	\$0.1	(\$0.0)	(\$0.0)	\$0.1	\$0.2	58	55			
11	Tiltonsville - Windsor	Line	AP	\$0.4	\$0.3	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.2	348	87			
12	East Frankfort - Crete	Line	ComEd	\$0.9	\$0.7	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	912	0			
13	AEP-DOM	Interface	500	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.2	96	56			
14	Conastone	Transformer	BGE	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	8	1			
15	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.1	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.2	62	81			
35	Graceton - Raphael Road	Line	BGE	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	4	3			
60	Concord - Green Street	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	4	0			
63	Conastone - Northwest	Line	BGE	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0			
112	Green Street - Westport	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	72	0			

DPL Control Zone**Table 7-23 DPL Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-23)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Day Ahead	Real Time				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total						
1	5004/5005 Interface	Interface	500	\$7.1	\$2.1	\$0.0	\$4.9	\$0.2	\$0.1	(\$0.0)	\$0.1	\$5.0	806	294			
2	AP South	Interface	500	\$2.0	\$0.7	(\$0.0)	\$1.3	\$0.1	\$0.0	\$0.0	\$0.1	\$1.4	1,255	735			
3	Indian River At20	Transformer	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	(\$0.6)	(\$0.0)	\$0.9	\$0.9	0	8			
4	East Frankfort - Crete	Line	ComEd	\$0.7	\$0.1	\$0.0	\$0.6	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.6	835	418			
5	Bedington - Black Oak	Interface	500	\$0.6	\$0.2	\$0.0	\$0.4	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.4	519	9			
6	West	Interface	500	\$0.5	\$0.2	\$0.0	\$0.3	\$0.1	\$0.1	(\$0.0)	\$0.0	\$0.3	56	37			
7	Sammis - Wylie Ridge	Line	AP	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.3	305	37			
8	Athenia - Saddlebrook	Line	PSEG	(\$0.4)	(\$0.1)	(\$0.0)	(\$0.3)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.3)	1,779	273			
9	Bellehaven - Tasley	Line	DPL	\$0.2	(\$0.0)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	429	0			
10	Graceton - Raphael Road	Line	BGE	(\$0.2)	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.2)	34	25			
11	Harrison - Pruntytown	Line	500	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.1	75	86			
12	Tiltonville - Windsor	Line	AP	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.1	260	139			
13	Cloverdale - Lexington	Line	AEP	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.1	154	94			
14	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	142	3			
15	Longwood - Wye Mills	Line	DPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	11	0			
18	Cecil - Colora	Line	DPL	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	17	4			
27	New Church - Piney Grove	Line	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	49	0			
30	Oak Hall	Transformer	DPL	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	44	0			
31	Hallwood - Oak Hall	Line	DPL	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	119	0			
33	Church	Transformer	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0			

Table 7-24 DPL Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-24)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit							
1	West	Interface	500	\$8.6	\$3.5	\$0.0	\$5.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	\$5.0	380	55			
2	Kammer	Transformer	500	\$3.2	\$0.8	\$0.0	\$2.4	(\$0.1)	\$0.1	(\$0.0)	(\$0.2)	\$2.2	1,021	504			
3	Wylie Ridge	Transformer	AP	\$3.4	\$1.3	\$0.0	\$2.1	\$0.2	\$0.2	(\$0.0)	(\$0.0)	\$2.1	354	335			
4	5004/5005 Interface	Interface	500	\$3.5	\$1.5	\$0.0	\$2.0	\$0.0	\$0.2	(\$0.1)	(\$0.3)	\$1.8	256	191			
5	AP South	Interface	500	\$1.7	\$0.6	\$0.0	\$1.2	\$0.0	\$0.1	(\$0.0)	(\$0.0)	\$1.1	1,088	216			
6	Sammis - Wylie Ridge	Line	AP	\$1.2	\$0.2	\$0.0	\$0.9	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.9	615	101			
7	Cloverdale - Lexington	Line	AEP	\$0.8	\$0.2	\$0.0	\$0.6	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.6	571	220			
8	Church - I.B. Comers	Line	DPL	\$0.7	\$0.1	\$0.0	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	39	0			
9	East Frankfort - Crete	Line	ComEd	\$0.7	\$0.1	(\$0.0)	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	912	0			
10	Edgemoor - Harmony	Line	DPL	\$0.8	\$0.3	\$0.0	\$0.5	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.4	28	7			
11	Red Lion At20	Transformer	DPL	\$0.4	\$0.1	\$0.0	\$0.4	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.4	45	6			
12	Edgemoor At20	Transformer	DPL	\$0.9	\$0.4	\$0.0	\$0.5	(\$0.4)	\$0.4	(\$0.1)	(\$0.9)	(\$0.4)	36	43			
13	Mount Storm - Pruntytown	Line	AP	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.3	455	17			
14	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.4	\$0.1	(\$0.0)	\$0.3	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.3	429	270			
15	Darley Road - Naamans	Line	DPL	\$0.4	\$0.2	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	23	0			
25	Cecil - Colora	Line	DPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	10	1			
26	Oak Hall	Transformer	DPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	12	0			
32	Longwood - Wye Mills	Line	DPL	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	19	3			
36	Harrington - S Harrington	Line	DPL	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	9	10			
44	Easton	Transformer	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	5	0			

JCPL Control Zone**Table 7-25 JCPL Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-25)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Day Ahead				Balancing				Day Ahead	Real Time				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total						
1	5004/5005 Interface	Interface	500	\$8.6	\$3.1	\$0.0	\$5.5	\$0.0	(\$0.2)	(\$0.0)	\$0.3	\$5.8	806	294			
2	Athenia - Saddlebrook	Line	PSEG	(\$2.1)	(\$0.6)	(\$0.0)	(\$1.6)	(\$0.1)	\$0.0	\$0.0	(\$0.2)	(\$1.7)	1,779	273			
3	East Frankfort - Crete	Line	ComEd	\$0.9	\$0.3	(\$0.0)	\$0.5	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.6	835	418			
4	West	Interface	500	\$0.5	\$0.2	\$0.0	\$0.3	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.4	56	37			
5	Atlantic - Larrabee	Line	JCPL	\$0.2	(\$0.1)	\$0.0	\$0.3	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.3	88	6			
6	Samms - Wylie Ridge	Line	AP	\$0.4	\$0.2	\$0.0	\$0.2	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.3	305	37			
7	Bridgewater - Middlesex	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.2	\$0.0	(\$0.3)	(\$0.2)	25	5			
8	Franklin - West Wharton	Line	JCPL	\$0.4	\$0.2	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	26	0			
9	Bedington - Black Oak	Interface	500	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	519	9			
10	AEP-DOM	Interface	500	(\$0.2)	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	452	76			
11	Tiltonville - Windsor	Line	AP	\$0.2	\$0.1	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.1	260	139			
12	Harrison - Pruntytown	Line	500	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	75	86			
13	Branchburg - Readington	Line	PSEG	\$0.0	(\$0.1)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	180	0			
14	Kilmer - Sayreville	Line	JCPL	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	72	0			
15	Crescent	Transformer	DLCO	(\$0.2)	(\$0.1)	\$0.0	(\$0.1)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	310	58			
24	Redoak - Sayreville	Line	JCPL	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	38	0			

Table 7-26 JCPL Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-26)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time		
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	West	Interface	500	\$9.6	\$3.9	\$0.0	\$5.7	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$5.8	380	55		
2	5004/5005 Interface	Interface	500	\$4.4	\$1.7	\$0.0	\$2.7	\$0.1	(\$0.9)	(\$0.0)	\$0.9	\$3.7	256	191		
3	Wylie Ridge	Transformer	AP	\$3.9	\$1.4	\$0.0	\$2.5	\$0.1	(\$0.6)	(\$0.0)	\$0.7	\$3.2	354	335		
4	Kammer	Transformer	500	\$3.5	\$1.2	\$0.0	\$2.3	(\$0.0)	(\$0.3)	(\$0.0)	\$0.2	\$2.5	1,021	504		
5	Athenia - Saddlebrook	Line	PSEG	(\$1.3)	(\$0.3)	(\$0.0)	(\$1.0)	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$1.1)	769	108		
6	Sammis - Wylie Ridge	Line	AP	\$1.4	\$0.5	\$0.0	\$0.9	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.9	615	101		
7	East Frankfort - Crete	Line	ComEd	\$0.9	\$0.3	(\$0.0)	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	912	0		
8	Cloverdale - Lexington	Line	AEP	\$0.8	\$0.3	\$0.0	\$0.5	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.5	571	220		
9	Atlantic - Larrabee	Line	JCPL	\$0.5	\$0.1	\$0.0	\$0.5	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.4	63	18		
10	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.5	\$0.1	(\$0.0)	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.4	429	270		
11	Buckingham - Pleasant Valley	Line	PECO	\$0.6	\$0.2	\$0.0	\$0.4	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.4	87	30		
12	Branchburg - Flagtown	Line	PSEG	\$0.8	\$0.3	\$0.0	\$0.5	(\$0.0)	\$0.1	(\$0.1)	(\$0.1)	\$0.4	161	16		
13	AP South	Interface	500	\$0.4	\$0.1	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.2	1,088	216		
14	Krendale - Seneca	Line	AP	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	158	0		
15	Tiltonville - Windsor	Line	AP	\$0.3	\$0.2	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.2	348	87		
36	Kilmer - Sayreville	Line	JCPL	\$0.4	\$0.2	\$0.0	\$0.2	(\$0.0)	\$0.2	\$0.0	(\$0.2)	\$0.0	0	11		
42	Atlantic - New Prospect Road	Line	JCPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	6	0		

Met-Ed Control Zone**Table 7-27 Met-Ed Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-27)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Day Ahead	Real Time				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total						
1	5004/5005 Interface	Interface	500	\$5.9	\$4.9	\$0.0	\$1.0	\$0.0	(\$0.4)	(\$0.0)	\$0.4	\$1.5	806	294			
2	AP South	Interface	500	\$2.0	\$1.0	(\$0.0)	\$0.9	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.9	1,255	735			
3	West	Interface	500	\$0.4	\$0.2	\$0.0	\$0.2	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.3	56	37			
4	Athenia - Saddlebrook	Line	PSEG	(\$0.7)	(\$0.6)	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.2)	1,779	273			
5	Bedington - Black Oak	Interface	500	\$0.6	\$0.4	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.2	519	9			
6	AEP-DOM	Interface	500	\$0.1	(\$0.0)	(\$0.0)	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	452	76			
7	East Frankfort - Crete	Line	ComEd	\$0.6	\$0.6	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	835	418			
8	Samms - Wylie Ridge	Line	AP	\$0.3	\$0.3	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.1	305	37			
9	Susquehanna	Transformer	PPL	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	36	0			
10	Cloverdale - Lexington	Line	AEP	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	154	94			
11	Harrison - Pruntytown	Line	500	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	75	86			
12	Graceton - Raphael Road	Line	BGE	(\$0.2)	(\$0.2)	(\$0.0)	(\$0.0)	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	34	25			
13	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.1	\$0.1	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	142	3			
14	Nipetown - Reid	Line	AP	\$0.1	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	75	18			
15	Tiltonville - Windsor	Line	AP	\$0.1	\$0.2	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	260	139			
32	Collins - Middletown Jct	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	13	0			
35	Brunner Island - Yorkana	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0			
111	Glendon - Hosensack	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0			

Table 7-28 Met-Ed Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-28)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Day Ahead	Real Time				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total						
1	AP South	Interface	500	\$1.4	\$1.0	\$0.0	\$0.4	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.4	1,088	216			
2	Wylie Ridge	Transformer	AP	\$3.1	\$2.8	\$0.0	\$0.3	(\$0.1)	(\$0.2)	(\$0.0)	\$0.0	\$0.3	354	335			
3	5004/5005 Interface	Interface	500	\$2.9	\$3.3	\$0.0	(\$0.4)	(\$0.1)	(\$0.3)	(\$0.0)	\$0.1	(\$0.2)	256	191			
4	West	Interface	500	\$6.9	\$6.8	\$0.0	\$0.1	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.2	380	55			
5	Sammis - Wylie Ridge	Line	AP	\$1.0	\$1.2	\$0.0	(\$0.2)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	615	101			
6	Cloverdale - Lexington	Line	AEP	\$0.7	\$0.8	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	571	220			
7	Bedington	Transformer	AP	\$0.1	(\$0.0)	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	236	103			
8	Tiltonsville - Windsor	Line	AP	\$0.2	\$0.4	\$0.0	(\$0.2)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.1)	348	87			
9	East Frankfort - Crete	Line	ComEd	\$0.6	\$0.7	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	912	0			
10	Middletown Jct	Transformer	Met-Ed	\$0.2	(\$0.0)	\$0.0	\$0.2	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.1	47	12			
11	Bedington - Harmony	Line	AP	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	181	0			
12	Krendale - Seneca	Line	AP	\$0.2	\$0.3	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	158	0			
13	Mount Storm - Pruntytown	Line	AP	\$0.4	\$0.3	\$0.0	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	455	17			
14	Conastone	Transformer	BGE	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	8	1			
15	Doubs	Transformer	AP	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	36	13			
39	Collins - Middletown Jct	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	4	5			
49	Cly - Newberry	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	2	0			
73	Gardners - Texas East	Line	Met-Ed	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	1			
123	Brunner Island - Yorkana	Line	Met-Ed	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	1			
134	Middletown Jct - Yorkhaven	Line	Met-Ed	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	2	0			

PECO Control Zone**Table 7-29 PECO Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-29)**

No.	Constraint	Type	Location	Congestion Costs (Millions)									Event Hours		
				Load Payments	Day Ahead			Total	Load Payments	Balancing		Total	Grand Total	Day Ahead	Real Time
					Generation Credits	Explicit	Implicit			Generation Credits	Explicit				
1	5004/5005 Interface	Interface	500	\$6.7	\$11.6	\$0.0	(\$4.9)	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.0)	(\$4.9)	806	294	
2	AP South	Interface	500	\$0.9	\$3.3	\$0.0	(\$2.4)	(\$0.1)	\$0.1	\$0.0	(\$0.1)	(\$2.5)	1,255	735	
3	Bedington - Black Oak	Interface	500	\$0.3	\$0.9	\$0.0	(\$0.5)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.6)	519	9	
4	East Frankfort - Crete	Line	ComEd	\$0.8	\$1.4	\$0.0	(\$0.5)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	(\$0.5)	835	418	
5	West	Interface	500	\$0.5	\$1.0	\$0.0	(\$0.5)	(\$0.0)	(\$0.1)	\$0.0	\$0.1	(\$0.4)	56	37	
6	AEP-DOM	Interface	500	(\$0.2)	\$0.1	(\$0.0)	(\$0.3)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.3)	452	76	
7	Sammis - Wylie Ridge	Line	AP	\$0.4	\$0.6	\$0.0	(\$0.3)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.3)	305	37	
8	Graceton - Raphael Road	Line	BGE	(\$0.1)	(\$0.3)	\$0.0	\$0.2	\$0.1	\$0.1	\$0.0	(\$0.0)	\$0.2	34	25	
9	Athenia - Saddlebrook	Line	PSEG	(\$0.5)	(\$1.0)	(\$0.0)	\$0.5	\$0.0	\$0.3	\$0.0	(\$0.3)	\$0.2	1,779	273	
10	Harrison - Pruntytown	Line	500	\$0.1	\$0.1	\$0.0	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	(\$0.1)	75	86	
11	Burlington - Croydon	Line	PECO	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	512	13	
12	Crescent	Transformer	DLCO	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	310	58	
13	Tiltonville - Windsor	Line	AEP	\$0.1	\$0.2	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	437	0	
14	Nipetown - Reid	Line	AP	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	75	18	
15	Rising	Flowgate	Midwest ISO	\$0.1	\$0.2	(\$0.0)	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	582	32	
25	Cromby	Transformer	PECO	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	33	2	
40	Eddystone - Scott Paper	Line	PECO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	4	
51	Holmesburg - Richmond	Line	PECO	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	49	0	
68	Conastone - Peach Bottom	Line	PECO	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	3	0	
87	Eddystone - Saville	Line	PECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	1	

Table 7-30 PECO Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-30)

Congestion Costs (Millions)															
No.	Constraint	Type	Location	Day Ahead				Balancing				Event Hours			
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	Grand Total	Day Ahead	Real Time	
1	West	Interface	500	\$3.0	\$6.2	\$0.0	(\$3.1)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$3.1)	380	55	
2	Kammer	Transformer	500	\$0.9	\$3.5	\$0.0	(\$2.6)	(\$0.1)	\$0.0	(\$0.0)	(\$0.2)	(\$2.8)	1,021	504	
3	AP South	Interface	500	\$0.3	\$1.8	\$0.0	(\$1.6)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	(\$1.6)	1,088	216	
4	Wylie Ridge	Transformer	AP	\$1.3	\$2.3	\$0.0	(\$0.9)	(\$0.1)	\$0.0	(\$0.1)	(\$0.1)	(\$1.1)	354	335	
5	5004/5005 Interface	Interface	500	\$1.9	\$2.7	\$0.0	(\$0.9)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.9)	256	191	
6	Samms - Wylie Ridge	Line	AP	\$0.4	\$1.1	\$0.0	(\$0.7)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.7)	615	101	
7	Cloverdale - Lexington	Line	AEP	\$0.3	\$0.9	\$0.0	(\$0.6)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.6)	571	220	
8	East Frankfort - Crete	Line	ComEd	\$0.3	\$0.8	(\$0.0)	(\$0.5)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.5)	912	0	
9	Mount Storm - Pruntytown	Line	AP	\$0.1	\$0.5	\$0.0	(\$0.5)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.5)	455	17	
10	Conastone	Transformer	BGE	(\$0.0)	(\$0.3)	\$0.0	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.3	8	1	
11	Tiltonsville - Windsor	Line	AP	\$0.1	\$0.4	\$0.0	(\$0.3)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.3)	348	87	
12	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.2	\$0.4	(\$0.0)	(\$0.2)	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	(\$0.2)	429	270	
13	Krendale - Seneca	Line	AP	\$0.1	\$0.3	\$0.0	(\$0.2)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	158	0	
14	Eddystone - Scott Paper	Line	PECO	\$0.2	(\$0.0)	\$0.0	\$0.2	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.2	30	2	
15	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.2)	62	81	
17	Holmesburg - Richmond	Line	PECO	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.1	13	3	
23	Buckingham - Pleasant Valley	Line	PECO	(\$0.4)	(\$0.3)	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.1)	87	30	
26	Limerick	Transformer	PECO	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	21	0	
27	Graceton - Peach Bottom	Line	PECO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.1	0	13	
35	Whitpain	Transformer	PECO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	10	0	

PENELEC Control Zone**Table 7-31 PENELEC Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-31)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit	Generation Credits	Explicit					
1	AP South	Interface	500	(\$21.8)	(\$33.5)	(\$0.0)	\$11.7	\$3.2	\$0.2	\$0.1	\$3.0	\$14.7	1,255	735			
2	5004/5005 Interface	Interface	500	(\$6.3)	(\$20.4)	(\$0.1)	\$14.0	\$0.8	\$0.3	\$0.1	\$0.5	\$14.5	806	294			
3	Bedington - Black Oak	Interface	500	(\$3.7)	(\$5.8)	(\$0.0)	\$2.0	\$0.1	(\$0.0)	\$0.0	\$0.1	\$2.2	519	9			
4	AEP-DOM	Interface	500	(\$4.4)	(\$6.3)	(\$0.0)	\$1.8	\$0.1	(\$0.1)	\$0.0	\$0.2	\$2.1	452	76			
5	East Frankfort - Crete	Line	ComEd	\$2.0	\$2.5	\$0.0	(\$0.5)	(\$0.4)	\$0.0	(\$0.0)	(\$0.5)	(\$1.0)	835	418			
6	Sammis - Wylie Ridge	Line	AP	\$0.3	\$1.1	\$0.0	(\$0.8)	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.8)	305	37			
7	West	Interface	500	(\$0.3)	(\$0.9)	\$0.0	\$0.7	\$0.2	\$0.1	\$0.0	\$0.1	\$0.8	56	37			
8	Homer City - Seward	Line	PENELEC	\$1.4	\$0.8	(\$0.0)	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	37	0			
9	Mount Storm - Pruntytown	Line	AP	(\$0.6)	(\$1.0)	(\$0.0)	\$0.4	\$0.3	\$0.2	\$0.0	\$0.1	\$0.4	87	64			
10	Seward	Transformer	PENELEC	\$0.8	\$0.4	(\$0.0)	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	22	0			
11	Altoona - Bear Rock	Line	PENELEC	(\$0.5)	(\$0.9)	(\$0.0)	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	16	0			
12	Homer City - Johnstown	Line	PENELEC	\$0.9	\$0.6	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	32	0			
13	Homer City	Transformer	PENELEC	\$0.7	\$0.4	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	80	0			
14	Tiltonsville - Windsor	Line	AP	\$0.5	\$0.5	\$0.0	(\$0.0)	(\$0.2)	\$0.1	(\$0.0)	(\$0.2)	(\$0.3)	260	139			
15	Crescent	Transformer	DLCO	(\$0.6)	(\$0.7)	(\$0.0)	\$0.1	\$0.1	(\$0.1)	\$0.0	\$0.1	\$0.3	310	58			
17	Garrett	Transformer	PENELEC	\$1.0	\$0.8	\$0.0	\$0.2	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.2	102	3			
32	Keystone - Shelocta	Line	PENELEC	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	11	0			
37	Deepcreek	Transformer	PENELEC	\$0.1	\$0.1	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	158	0			
40	Homer City - Shelocta	Line	PENELEC	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.1	\$0.1	\$0.0	(\$0.0)	(\$0.0)	1	3			
43	Roxbury - Shade Gap	Line	PENELEC	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	0	5			

Table 7-32 PENELEC Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-32)

Congestion Costs (Millions)														
No.	Constraint	Type	Location	Day Ahead				Balancing				Grand Total	Event Hours	
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		Day Ahead	Real Time
1	West	Interface	500	(\$2.2)	(\$15.2)	(\$0.0)	\$13.0	\$0.1	\$0.1	\$0.0	(\$0.1)	\$12.9	380	55
2	AP South	Interface	500	(\$8.4)	(\$17.2)	(\$0.0)	\$8.8	\$0.6	\$0.3	\$0.1	\$0.4	\$9.2	1,088	216
3	Wylie Ridge	Transformer	AP	\$1.5	\$10.3	\$0.1	(\$8.8)	(\$0.6)	(\$0.7)	(\$0.0)	\$0.1	(\$8.7)	354	335
4	5004/5005 Interface	Interface	500	(\$1.5)	(\$8.5)	(\$0.0)	\$7.0	\$0.4	\$1.5	\$0.0	(\$1.1)	\$5.9	256	191
5	Kammer	Transformer	500	\$2.2	\$7.1	\$0.2	(\$4.7)	(\$0.1)	(\$0.2)	(\$0.1)	\$0.0	(\$4.7)	1,021	504
6	Sammis - Wylie Ridge	Line	AP	\$1.0	\$3.7	\$0.1	(\$2.6)	(\$0.1)	(\$0.1)	\$0.0	(\$0.0)	(\$2.7)	615	101
7	Mount Storm - Pruntytown	Line	AP	(\$2.3)	(\$4.5)	(\$0.0)	\$2.2	\$0.3	\$0.1	\$0.0	\$0.3	\$2.5	455	17
8	East Frankfort - Crete	Line	ComEd	\$1.1	\$2.0	\$0.0	(\$0.9)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.9)	912	0
9	Homer City - Seward	Line	PENELEC	\$1.8	\$1.1	\$0.0	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	25	0
10	Krendale - Seneca	Line	AP	\$0.4	\$1.0	\$0.0	(\$0.6)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.6)	158	0
11	Bedington - Black Oak	Interface	500	(\$0.5)	(\$1.0)	(\$0.0)	\$0.5	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.5	58	55
12	Altoona - Bear Rock	Line	PENELEC	(\$0.6)	(\$1.1)	(\$0.0)	\$0.5	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.5	30	4
13	Bedington	Transformer	AP	(\$0.0)	(\$0.4)	\$0.0	\$0.4	\$0.1	\$0.0	\$0.0	\$0.1	\$0.5	236	103
14	Mount Storm	Transformer	AP	(\$0.5)	(\$1.1)	(\$0.0)	\$0.5	(\$0.1)	\$0.0	\$0.0	(\$0.1)	\$0.5	80	22
15	Tiltonville - Windsor	Line	AP	\$0.3	\$0.7	\$0.0	(\$0.4)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.4)	348	87
17	Homer City	Transformer	PENELEC	\$0.6	\$0.2	(\$0.0)	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	48	0
18	Seward	Transformer	PENELEC	\$0.7	\$0.3	\$0.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	14	0
20	Altoona - Raystown	Line	PENELEC	(\$0.6)	(\$0.9)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	31	0
23	Homer City - Shelocta	Line	PENELEC	(\$0.4)	(\$0.5)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	14	0
27	Summit - Westfall	Line	PENELEC	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	(\$0.1)	0	8

Pepco Control Zone

Table 7-33 Pepco Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-33)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time		
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	AP South	Interface	500	\$48.1	\$36.3	\$0.6	\$12.5	(\$2.2)	(\$1.6)	(\$0.8)	(\$1.5)	\$11.0	1,255	735		
2	Bedington - Black Oak	Interface	500	\$9.6	\$6.7	\$0.2	\$3.1	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$3.1	519	9		
3	AEP-DOM	Interface	500	\$8.0	\$6.5	\$0.1	\$1.5	(\$0.1)	(\$0.2)	(\$0.1)	\$0.0	\$1.5	452	76		
4	5004/5005 Interface	Interface	500	\$4.3	\$3.0	\$0.2	\$1.5	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.2)	\$1.3	806	294		
5	Bowie	Line	Pepco	\$2.3	\$1.1	\$0.1	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	44	0		
6	East Frankfort - Crete	Line	ComEd	\$2.1	\$1.3	\$0.0	\$0.8	(\$0.3)	(\$0.1)	(\$0.0)	(\$0.2)	\$0.6	835	418		
7	Mount Storm - Pruntytown	Line	AP	\$1.5	\$1.1	\$0.0	\$0.5	(\$0.2)	(\$0.4)	(\$0.0)	\$0.1	\$0.6	87	64		
8	Benning - Ritchie	Line	Pepco	\$0.6	\$0.2	\$0.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	19	0		
9	Sammis - Wylie Ridge	Line	AP	\$0.9	\$0.6	\$0.0	\$0.3	(\$0.1)	(\$0.1)	(\$0.0)	\$0.0	\$0.4	305	37		
10	Bowie	Transformer	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	\$0.4	(\$0.1)	(\$0.3)	(\$0.3)	0	9		
11	Harrison - Pruntytown	Line	500	\$0.5	\$0.4	\$0.0	\$0.1	(\$0.2)	(\$0.3)	(\$0.0)	\$0.1	\$0.2	75	86		
12	Athenia - Saddlebrook	Line	PSEG	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.1)	\$0.1	(\$0.0)	\$0.2	\$0.3	\$0.2	1,779	273		
13	Burtonsville - Metzert Rd.	Line	Pepco	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	17	0		
14	Doubs	Transformer	AP	\$0.5	\$0.3	\$0.0	\$0.2	(\$0.1)	\$0.2	(\$0.1)	(\$0.4)	(\$0.2)	20	33		
15	Messic Road - Morgan	Line	AP	\$0.6	\$0.4	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	172	0		
33	Dickerson - Pleasant View	Line	Pepco	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	53	3		
35	Burches Hill - Talbert	Line	Pepco	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	1	13		
55	Buzzard - Ritchie	Line	Pepco	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	16	0		

Table 7-34 Pepco Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-34)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit							
1	AP South	Interface	500	\$27.3	\$21.0	\$0.3	\$6.6	(\$0.6)	(\$1.8)	(\$0.3)	\$0.9	\$7.4	1,088	216			
2	Kammer	Transformer	500	\$9.1	\$6.7	\$0.1	\$2.5	(\$0.4)	(\$0.9)	(\$0.1)	\$0.4	\$2.9	1,021	504			
3	Mount Storm - Pruntytown	Line	AP	\$7.4	\$5.6	\$0.1	\$1.8	(\$0.0)	(\$0.5)	(\$0.0)	\$0.5	\$2.3	455	17			
4	West	Interface	500	\$8.1	\$6.0	\$0.0	\$2.1	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$2.2	380	55			
5	Wylie Ridge	Transformer	AP	\$6.2	\$4.9	\$0.0	\$1.3	(\$0.3)	(\$0.7)	(\$0.0)	\$0.3	\$1.7	354	335			
6	Cloverdale - Lexington	Line	AEP	\$4.8	\$3.6	\$0.1	\$1.3	(\$0.1)	(\$0.3)	(\$0.1)	\$0.1	\$1.4	571	220			
7	Sammis - Wylie Ridge	Line	AP	\$2.4	\$1.6	\$0.0	\$0.8	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.0)	\$0.8	615	101			
8	Bedington - Black Oak	Interface	500	\$1.7	\$1.2	\$0.0	\$0.5	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.6	58	55			
9	East Frankfort - Crete	Line	ComEd	\$1.6	\$1.1	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	912	0			
10	Mount Storm	Transformer	AP	\$1.5	\$1.1	\$0.0	\$0.4	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.5	80	22			
11	5004/5005 Interface	Interface	500	\$1.0	\$0.7	\$0.0	\$0.3	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.4	256	191			
12	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.9	\$0.6	(\$0.0)	\$0.2	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	\$0.3	429	270			
13	Tiltonville - Windsor	Line	AP	\$0.7	\$0.5	\$0.0	\$0.2	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.2	348	87			
14	Dickerson - Pleasant View	Line	Pepco	\$0.5	\$0.3	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.2	15	13			
15	AEP-DOM	Interface	500	\$0.7	\$0.5	\$0.0	\$0.2	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.0)	\$0.2	96	56			
21	Brighton	Transformer	Pepco	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	6	1			
58	Pumphrey - Westport	Line	Pepco	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	253	0			
126	Burches Hill	Transformer	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	1			

PPL Control Zone**Table 7-35 PPL Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-35)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total					
1	5004/5005 Interface	Interface	500	\$19.2	\$24.2	\$0.5	(\$4.6)	\$0.3	\$0.3	(\$0.2)	(\$0.1)	(\$4.7)	806	294		
2	Susquehanna	Transformer	PPL	\$1.0	\$0.3	\$0.0	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	36	0		
3	AP South	Interface	500	\$1.1	\$0.7	\$0.2	\$0.5	\$0.1	(\$0.1)	(\$0.1)	\$0.1	\$0.6	1,255	735		
4	East Frankfort - Crete	Line	ComEd	\$1.6	\$2.1	\$0.0	(\$0.5)	\$0.1	\$0.0	(\$0.0)	\$0.1	(\$0.3)	835	418		
5	Sammis - Wylie Ridge	Line	AP	\$0.8	\$1.0	\$0.0	(\$0.2)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.3)	305	37		
6	West	Interface	500	\$1.1	\$1.3	\$0.0	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	(\$0.2)	56	37		
7	Bedington - Black Oak	Interface	500	\$0.5	\$0.4	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.2	519	9		
8	Hawthorn - Waldwick	Line	PSEG	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	454	36		
9	Baker - Broadford	Line	AEP	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.1	10	74		
10	Tiltonville - Windsor	Line	AP	\$0.3	\$0.4	\$0.0	(\$0.1)	\$0.1	\$0.0	(\$0.0)	\$0.0	(\$0.1)	260	139		
11	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.3	\$0.3	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	142	3		
12	Athenia - Saddlebrook	Line	PSEG	(\$1.8)	(\$2.0)	(\$0.0)	\$0.1	(\$0.1)	\$0.1	\$0.1	(\$0.1)	\$0.1	1,779	273		
13	Rising	Flowgate	Midwest ISO	\$0.2	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	582	32		
14	Crescent	Transformer	DLCO	(\$0.3)	(\$0.4)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	310	58		
15	Tiltonville - Windsor	Line	AEP	\$0.2	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	437	0		
36	Wescosville	Transformer	PPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	6	0		

Table 7-36 PPL Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-36)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Balancing				Day Ahead	Real Time				
					Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total						
1	Kammer	Transformer	500	\$0.5	\$1.6	\$0.3	(\$0.7)	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.9)	1,021	504			
2	AP South	Interface	500	\$0.4	(\$0.2)	\$0.1	\$0.7	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.8	1,088	216			
3	West	Interface	500	\$2.8	\$4.1	\$0.5	(\$0.8)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	(\$0.7)	380	55			
4	Sammis - Wylie Ridge	Line	AP	\$0.1	\$0.7	\$0.1	(\$0.5)	\$0.0	(\$0.0)	\$0.0	\$0.1	(\$0.4)	615	101			
5	5004/5005 Interface	Interface	500	\$1.3	\$2.2	\$0.3	(\$0.5)	\$0.1	(\$0.8)	(\$0.1)	\$0.8	\$0.3	256	191			
6	Wylie Ridge	Transformer	AP	\$1.1	\$1.8	\$0.3	(\$0.4)	\$0.2	\$0.1	\$0.0	\$0.1	(\$0.3)	354	335			
7	Mount Storm - Pruntytown	Line	AP	\$0.1	(\$0.1)	\$0.0	\$0.3	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.3	455	17			
8	East Frankfort - Crete	Line	ComEd	\$0.1	\$0.4	\$0.0	(\$0.2)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	912	0			
9	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.1	\$0.3	(\$0.0)	(\$0.2)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.2)	429	270			
10	Cloverdale - Lexington	Line	AEP	\$0.1	\$0.3	\$0.1	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	571	220			
11	Buckingham - Pleasant Valley	Line	PECO	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	87	30			
12	Mount Storm	Transformer	AP	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	80	22			
13	Bedington - Black Oak	Interface	500	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	58	55			
14	Cedar Grove - Roseland	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	29	56			
15	Krendale - Seneca	Line	AP	\$0.1	\$0.1	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	158	0			

PSEG Control Zone**Table 7-37 PSEG Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-37)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Day Ahead				Balancing				Day Ahead	Real Time				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total						
1	Hawthorn - Waldwick	Line	PSEG	\$0.1	(\$0.0)	(\$0.0)	\$0.0	(\$0.7)	\$1.1	(\$1.6)	(\$3.4)	(\$3.4)	454	36			
2	AP South	Interface	500	\$0.2	\$2.3	\$1.1	(\$1.1)	\$0.1	(\$0.2)	(\$0.9)	(\$0.6)	(\$1.7)	1,255	735			
3	Hawthorn - Hinchmans Ave	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.1)	\$0.4	(\$0.9)	(\$1.4)	(\$1.6)	209	35			
4	5004/5005 Interface	Interface	500	\$11.9	\$12.5	\$1.2	\$0.6	(\$0.2)	\$0.7	(\$0.5)	(\$1.4)	(\$0.8)	806	294			
5	Bayonne - PVSC	Line	PSEG	\$0.0	(\$0.4)	\$0.1	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	507	0			
6	Branchburg - Readington	Line	PSEG	\$0.5	\$0.0	\$0.1	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	180	0			
7	Hudson - Marion	Line	PSEG	\$0.3	\$0.1	\$0.2	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	170	0			
8	Graceton - Raphael Road	Line	BGE	(\$0.3)	(\$0.4)	(\$0.0)	\$0.0	\$0.2	(\$0.1)	\$0.1	\$0.4	\$0.4	34	25			
9	East Frankfort - Crete	Line	ComEd	\$1.3	\$1.4	\$0.0	(\$0.0)	(\$0.1)	\$0.2	(\$0.1)	(\$0.3)	(\$0.4)	835	418			
10	Pleasant Prairie - Zion	Flowgate	Midwest ISO	(\$0.0)	(\$0.0)	\$0.1	\$0.1	(\$0.0)	\$0.0	(\$0.5)	(\$0.5)	(\$0.4)	556	21			
11	Athenia - Saddlebrook	Line	PSEG	\$9.3	\$1.2	\$5.3	\$13.4	(\$6.5)	\$2.7	(\$4.6)	(\$13.7)	(\$0.4)	1,779	273			
12	West	Interface	500	\$0.8	\$0.8	\$0.1	\$0.1	(\$0.1)	\$0.1	(\$0.1)	(\$0.4)	(\$0.4)	56	37			
13	Bedington - Black Oak	Interface	500	\$0.3	\$0.8	\$0.3	(\$0.3)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.3)	519	9			
14	Atlantic - Larrabee	Line	JCPL	\$0.1	(\$0.1)	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.2	88	6			
15	Tiltonville - Windsor	Line	AP	\$0.3	\$0.3	\$0.0	\$0.1	(\$0.1)	\$0.0	(\$0.2)	(\$0.2)	(\$0.2)	260	139			
16	Fairlawn - Waldwick	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	(\$0.2)	(\$0.2)	0	4			
17	Fairlawn - Saddlebrook	Line	PSEG	\$0.2	\$0.1	\$0.3	\$0.4	(\$0.0)	\$0.1	(\$0.4)	(\$0.5)	(\$0.2)	209	16			
18	Hudson	Transformer	PSEG	\$0.1	\$0.0	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	30	0			
19	Bayway - Federal Square	Line	PSEG	\$0.1	(\$0.1)	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	109	1			
21	Linden - North Ave	Line	PSEG	\$0.1	(\$0.1)	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.1	66	1			

Table 7-38 PSEG Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-38)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total					
1	Athenia - Saddlebrook	Line	PSEG	\$3.0	\$0.5	\$1.2	\$3.7	(\$0.3)	\$0.1	(\$0.5)	(\$0.9)	\$2.8	769	108		
2	Plainsboro - Trenton	Line	PSEG	\$2.4	(\$0.1)	\$0.1	\$2.6	(\$0.2)	\$0.3	(\$0.1)	(\$0.6)	\$2.0	275	113		
3	Wylie Ridge	Transformer	AP	\$4.3	\$5.4	\$0.5	(\$0.6)	\$0.0	\$0.1	(\$0.6)	(\$0.7)	(\$1.3)	354	335		
4	AP South	Interface	500	\$0.4	\$2.1	\$0.6	(\$1.1)	\$0.0	(\$0.1)	(\$0.2)	(\$0.2)	(\$1.2)	1,088	216		
5	West	Interface	500	\$10.8	\$12.7	\$0.8	(\$1.1)	(\$0.0)	\$0.0	(\$0.1)	(\$0.2)	(\$1.2)	380	55		
6	Fairlawn - Saddlebrook	Line	PSEG	\$0.8	\$0.1	\$0.4	\$1.1	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	506	0		
7	Leonia - New Milford	Line	PSEG	\$0.5	\$0.1	\$0.7	\$1.1	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	\$1.0	632	14		
8	5004/5005 Interface	Interface	500	\$5.1	\$5.0	\$0.3	\$0.4	\$0.0	\$0.8	(\$0.4)	(\$1.2)	(\$0.8)	256	191		
9	Buckingham - Pleasant Valley	Line	PECO	\$0.7	(\$0.1)	\$0.0	\$0.9	(\$0.0)	\$0.1	(\$0.0)	(\$0.2)	\$0.7	87	30		
10	Branchburg - Flagtown	Line	PSEG	\$0.6	(\$0.0)	\$0.1	\$0.7	(\$0.0)	\$0.1	(\$0.1)	(\$0.2)	\$0.4	161	16		
11	Bayway - Federal Square	Line	PSEG	\$0.3	(\$0.1)	\$0.0	\$0.4	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.4	63	9		
12	Cedar Grove - Roseland	Line	PSEG	\$0.3	\$0.0	\$0.0	\$0.3	(\$0.1)	\$0.4	(\$0.2)	(\$0.7)	(\$0.4)	29	56		
13	Mount Storm - Pruntytown	Line	AP	\$0.0	\$0.5	\$0.1	(\$0.3)	\$0.0	(\$0.0)	(\$0.1)	(\$0.0)	(\$0.4)	455	17		
14	Kammer	Transformer	500	\$4.4	\$4.4	\$0.3	\$0.3	(\$0.1)	\$0.3	(\$0.3)	(\$0.6)	(\$0.3)	1,021	504		
15	Cloverdale - Lexington	Line	AEP	\$1.0	\$1.2	\$0.1	(\$0.1)	\$0.0	\$0.1	(\$0.1)	(\$0.2)	(\$0.3)	571	220		
17	Sewaren	Transformer	PSEG	\$0.1	(\$0.0)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	42	0		
18	Bayonne - PVSC	Line	PSEG	\$0.0	(\$0.1)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	102	0		
19	Fairlawn - Waldwick	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	(\$0.1)	(\$0.1)	(\$0.1)	0	18		
21	Brunswick - Edison	Line	PSEG	\$0.2	(\$0.0)	\$0.0	\$0.3	(\$0.1)	\$0.2	(\$0.1)	(\$0.4)	(\$0.1)	41	59		
24	Bergen - Saddlebrook	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	111	0		

RECO Control Zone**Table 7-39 RECO Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-39)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Day Ahead	Real Time				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total						
1	5004/5005 Interface	Interface	500	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.4	806	294			
2	Athenia - Saddlebrook	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.2	1,779	273			
3	AP South	Interface	500	(\$0.1)	(\$0.0)	\$0.0	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	1,255	735			
4	Hawthorn - Hinchmans Ave	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$0.1)	209	35			
5	Hawthorn - Waldwick	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$0.1)	454	36			
6	East Frankfort - Crete	Line	ComEd	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	835	418			
7	West	Interface	500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	56	37			
8	Fairlawn - Saddlebrook	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	209	16			
9	Tiltonsville - Windsor	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	260	139			
10	AEP-DOM	Interface	500	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	452	76			
11	Crescent	Transformer	DLCO	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	310	58			
12	Graceton - Raphael Road	Line	BGE	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	34	25			
13	Fairlawn - Waldwick	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	4			
14	Doubs	Transformer	AP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	20	33			
15	Samms - Wylie Ridge	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	305	37			

Table 7-40 RECO Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-40)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Load Payments	Day Ahead			Grand Total	Balancing			Day Ahead	Real Time		
					Generation Credits	Explicit	Total		Load Payments	Generation Credits	Explicit			Total	
1	West	Interface	500	\$0.5	\$0.0	\$0.0	\$0.5	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.5	380	55	
2	5004/5005 Interface	Interface	500	\$0.2	\$0.0	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.2	256	191	
3	Kammer	Transformer	500	\$0.2	\$0.0	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.2	1,021	504	
4	Wylie Ridge	Transformer	AP	\$0.2	\$0.0	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.2	354	335	
5	Athenia - Saddlebrook	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.1	769	108	
6	Sammis - Wylie Ridge	Line	AP	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	615	101	
7	AP South	Interface	500	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	1,088	216	
8	East Frankfort - Crete	Line	ComEd	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	912	0	
9	Fairlawn - Saddlebrook	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	506	0	
10	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	429	270	
11	Cloverdale - Lexington	Line	AEP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	571	220	
12	Krendale - Seneca	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	158	0	
13	Mount Storm - Pruntytown	Line	AP	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	455	17	
14	Tiltonville - Windsor	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	348	87	
15	Plainsboro - Trenton	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	275	113	

Western Region Congestion-Event Summaries**AEP Control Zone****Table 7-41 AEP Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-41)**

No.	Constraint	Type	Location	Congestion Costs (Millions)									Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total			
1	AEP-DOM	Interface	500	\$7.5	(\$20.0)	\$0.9	\$28.4	(\$0.1)	(\$0.3)	\$0.0	\$0.3	\$28.7	452	76
2	AP South	Interface	500	(\$13.8)	(\$37.5)	\$0.2	\$23.9	(\$3.1)	\$1.3	\$0.6	(\$3.8)	\$20.1	1,255	735
3	Baker - Broadford	Line	AEP	\$0.1	(\$0.2)	\$0.0	\$0.3	(\$1.5)	\$1.0	(\$3.5)	(\$5.9)	(\$5.6)	10	74
4	5004/5005 Interface	Interface	500	(\$9.0)	(\$14.1)	(\$0.2)	\$4.9	(\$0.6)	\$0.8	\$0.2	(\$1.2)	\$3.7	806	294
5	Bedington - Black Oak	Interface	500	(\$2.9)	(\$6.1)	(\$0.0)	\$3.2	(\$0.1)	(\$0.1)	\$0.0	\$0.0	\$3.2	519	9
6	Kanawha River	Transformer	AEP	\$2.1	(\$0.2)	\$0.3	\$2.6	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$2.6	158	11
7	Kanawha - Kincaid	Line	AEP	\$1.4	(\$0.7)	\$0.2	\$2.3	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	207	0
8	Culloden - Wyoming	Line	AEP	\$0.6	(\$0.8)	\$0.5	\$1.9	\$0.0	\$0.0	\$0.0	\$0.0	\$1.9	46	0
9	Sullivan	Transformer	AEP	(\$0.0)	(\$1.0)	(\$0.0)	\$1.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.9	154	35
10	Mount Storm - Pruntytown	Line	AP	(\$0.4)	(\$1.2)	\$0.0	\$0.8	(\$0.2)	\$0.1	\$0.0	(\$0.3)	\$0.5	87	64
11	Pleasant Prairie - Zion	Flowgate	Midwest ISO	\$0.0	\$0.0	\$0.4	\$0.4	\$0.0	(\$0.0)	(\$0.9)	(\$0.9)	(\$0.5)	556	21
12	East Frankfort - Crete	Line	ComEd	\$2.6	\$2.3	\$0.4	\$0.7	\$0.1	(\$0.1)	(\$0.5)	(\$0.2)	\$0.4	835	418
13	Rising	Flowgate	Midwest ISO	\$0.3	\$0.7	\$0.0	(\$0.4)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.4)	582	32
14	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.7	\$0.4	(\$0.0)	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.3	142	3
15	Kanawha River - Kincaid	Line	AEP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	(\$0.1)	(\$0.0)	(\$0.3)	(\$0.3)	0	48
16	Ruth - Turner	Line	AEP	\$0.1	(\$0.2)	\$0.0	\$0.3	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.3	18	11
17	Cloverdale - Lexington	Line	AEP	(\$0.8)	(\$0.8)	(\$0.0)	\$0.0	(\$0.0)	\$0.3	\$0.1	(\$0.3)	(\$0.3)	154	94
19	Kammer	Transformer	AEP	\$0.1	(\$0.2)	\$0.0	\$0.3	\$0.0	\$0.1	(\$0.0)	(\$0.1)	\$0.2	33	11
26	Sporn - Kyger Creek	Line	AEP	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	31	0
30	Tiltonville - Windsor	Line	AEP	(\$0.4)	(\$0.6)	(\$0.1)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	437	0

Table 7-42 AEP Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-42)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit	Generation Credits	Explicit					
1	AP South	Interface	500	(\$11.3)	(\$18.9)	\$0.8	\$8.4	(\$0.3)	\$0.2	\$0.1	(\$0.3)	\$8.2	1,088	216			
2	Ruth - Turner	Line	AEP	\$4.3	(\$1.5)	\$0.5	\$6.3	(\$1.2)	(\$0.4)	(\$0.1)	(\$0.9)	\$5.4	514	245			
3	Kanawha - Kincaid	Line	AEP	\$2.8	(\$2.1)	\$0.2	\$5.1	\$0.0	\$0.0	\$0.0	\$0.0	\$5.1	291	0			
4	Kammer - Ormet	Line	AEP	\$7.7	\$1.2	\$0.3	\$6.8	(\$1.6)	\$0.5	(\$0.1)	(\$2.2)	\$4.6	514	509			
5	Kanawha River	Transformer	AEP	\$3.2	(\$0.3)	\$0.5	\$4.0	\$0.1	(\$0.3)	(\$0.1)	\$0.4	\$4.3	159	37			
6	Kammer	Transformer	500	(\$8.8)	(\$13.8)	(\$0.2)	\$4.8	(\$0.3)	\$1.0	\$0.5	(\$0.9)	\$3.9	1,021	504			
7	Kanawha River - Bradley	Line	AEP	\$1.3	(\$2.2)	\$0.2	\$3.8	(\$0.0)	\$0.1	\$0.0	(\$0.1)	\$3.7	24	15			
8	Sammis - Wylie Ridge	Line	AP	(\$4.3)	(\$2.3)	(\$0.1)	(\$2.1)	(\$0.2)	\$0.1	(\$0.0)	(\$0.4)	(\$2.5)	615	101			
9	Mount Storm - Pruntytown	Line	AP	(\$3.0)	(\$5.0)	\$0.2	\$2.2	\$0.2	\$0.0	\$0.0	\$0.2	\$2.4	455	17			
10	Breed - Wheatland	Line	AEP	\$0.1	(\$2.4)	(\$0.3)	\$2.2	\$0.0	\$0.0	\$0.0	\$0.0	\$2.2	245	0			
11	East Frankfort - Crete	Line	ComEd	\$2.4	\$1.5	\$1.1	\$2.1	\$0.0	\$0.0	\$0.0	\$0.0	\$2.1	912	0			
12	Cloverdale - Lexington	Line	AEP	(\$5.7)	(\$4.0)	(\$0.3)	(\$2.0)	\$0.4	\$0.2	\$0.1	\$0.3	(\$1.8)	571	220			
13	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.6	\$0.2	\$0.2	\$0.5	(\$0.1)	\$0.0	(\$1.8)	(\$1.9)	(\$1.4)	62	81			
14	AEP-DOM	Interface	500	\$0.4	(\$1.2)	\$0.1	\$1.7	(\$0.2)	\$0.4	(\$0.0)	(\$0.6)	\$1.1	96	56			
15	Wylie Ridge	Transformer	AP	(\$7.9)	(\$8.2)	\$0.6	\$0.9	\$0.7	\$0.5	(\$0.1)	\$0.2	\$1.0	354	335			
25	Kanawha River - Kincaid	Line	AEP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	(\$0.1)	\$0.1	\$0.5	\$0.5	0	99			
28	Kammer	Transformer	AEP	\$0.3	(\$0.1)	\$0.0	\$0.4	\$0.0	\$0.1	(\$0.0)	(\$0.1)	\$0.3	59	13			
36	Sullivan	Transformer	AEP	(\$0.0)	(\$0.2)	(\$0.0)	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	9	2			
45	Olive - Green Acre	Line	AEP	\$0.1	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	20	0			
51	Breed - Sullivan	Line	AEP	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	10	0			

AP Control Zone**Table 7-43 AP Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-43)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Grand Total		
					Generation Credits	Explicit	Implicit			Generation Credits	Explicit	Implicit				
1	AP South	Interface	500	(\$13.2)	(\$53.0)	(\$4.2)	\$35.6	\$2.0	\$2.1	\$4.5	\$4.5	\$40.1	1,255	735		
2	Bedington - Black Oak	Interface	500	(\$2.0)	(\$8.6)	(\$0.2)	\$6.3	\$0.3	(\$0.1)	\$0.1	\$0.4	\$6.7	519	9		
3	AEP-DOM	Interface	500	(\$2.1)	(\$7.8)	\$0.3	\$6.0	\$0.2	(\$0.2)	(\$0.1)	\$0.4	\$6.4	452	76		
4	5004/5005 Interface	Interface	500	(\$8.9)	(\$13.0)	(\$0.6)	\$3.6	\$0.4	\$0.7	\$0.4	\$0.2	\$3.7	806	294		
5	Mount Storm - Pruntytown	Line	AP	(\$0.3)	(\$1.6)	(\$0.0)	\$1.3	\$0.2	(\$0.2)	\$0.1	\$0.4	\$1.7	87	64		
6	Tiltonsville - Windsor	Line	AEP	\$0.9	\$0.1	\$0.1	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	437	0		
7	Harrisonburg - Endless Caverns	Line	Dominion	\$0.7	\$0.1	\$0.2	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	128	0		
8	Albright - Snowy Creek	Line	AP	\$0.6	(\$0.1)	\$0.0	\$0.7	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.7	226	2		
9	Pruntytown	Transformer	AP	\$0.6	(\$0.1)	(\$0.0)	\$0.7	(\$0.1)	(\$0.1)	\$0.1	\$0.1	\$0.7	62	21		
10	Tiltonsville - Windsor	Line	AP	\$1.4	\$0.5	\$0.1	\$1.0	(\$0.3)	(\$0.1)	(\$0.3)	(\$0.5)	\$0.5	260	139		
11	Pleasant Prairie - Zion	Flowgate	Midwest ISO	(\$0.0)	(\$0.0)	\$0.2	\$0.2	\$0.0	(\$0.0)	(\$0.7)	(\$0.7)	(\$0.5)	556	21		
12	Nipetown - Reid	Line	AP	(\$0.0)	(\$0.5)	\$0.0	\$0.5	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.5	75	18		
13	Endless Caverns	Transformer	Dominion	\$0.4	\$0.1	\$0.1	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	75	0		
14	Dutch Fork - Windsor	Line	AP	\$0.4	\$0.1	\$0.1	\$0.4	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.4	119	3		
15	Hamilton - Weirton	Line	AP	\$0.6	\$0.2	\$0.0	\$0.4	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.4	86	12		
18	Messic Road - Morgan	Line	AP	(\$0.3)	(\$0.6)	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	172	0		
20	Kingwood - Pruntytown	Line	AP	\$0.2	(\$0.0)	\$0.0	\$0.3	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.3	62	9		
22	Middlebourne - Willow	Line	AP	\$0.2	(\$0.0)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	58	0		
23	Bedington - Shepherdstown	Line	AP	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	68	0		
24	New Martinsville - Paden City	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	\$0.0	(\$0.1)	(\$0.2)	(\$0.2)	23	26		

Table 7-44 AP Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-44)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Total	Day Ahead		Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit							
1	AP South	Interface	500	(\$8.2)	(\$35.4)	(\$3.1)	\$24.1	\$1.3	\$0.6	\$2.3	\$3.0	\$27.1	1,088	216			
2	Mount Storm - Pruntytown	Line	AP	(\$2.0)	(\$9.9)	(\$0.6)	\$7.3	\$0.4	\$0.2	\$0.5	\$0.7	\$8.0	455	17			
3	Wylie Ridge	Transformer	AP	\$6.1	\$7.4	\$5.4	\$4.1	(\$1.1)	(\$0.5)	(\$7.2)	(\$7.7)	(\$3.6)	354	335			
4	Kammer	Transformer	500	\$8.3	\$11.9	\$4.2	\$0.5	(\$1.0)	(\$1.7)	(\$4.6)	(\$3.9)	(\$3.4)	1,021	504			
5	5004/5005 Interface	Interface	500	(\$4.5)	(\$6.6)	(\$0.6)	\$1.5	\$0.8	\$0.7	\$1.6	\$1.7	\$3.2	256	191			
6	Bedington - Harmony	Line	AP	\$1.7	(\$0.1)	\$0.4	\$2.2	\$0.0	\$0.0	\$0.0	\$0.0	\$2.2	181	0			
7	Cloverdale - Lexington	Line	AEP	\$1.1	(\$1.2)	\$0.7	\$3.1	(\$0.2)	\$0.0	(\$0.8)	(\$1.0)	\$2.1	571	220			
8	Doubs	Transformer	AP	\$1.5	(\$0.0)	\$0.0	\$1.5	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$1.4	36	13			
9	Bedington	Transformer	AP	\$4.1	(\$0.3)	\$0.1	\$4.4	(\$3.8)	(\$0.2)	(\$2.3)	(\$5.8)	(\$1.4)	236	103			
10	Bedington - Black Oak	Interface	500	(\$0.4)	(\$2.0)	(\$0.1)	\$1.5	(\$0.3)	\$0.2	\$0.4	(\$0.2)	\$1.4	58	55			
11	West	Interface	500	(\$12.5)	(\$15.2)	(\$2.0)	\$0.8	\$0.2	\$0.1	\$0.2	\$0.3	\$1.1	380	55			
12	Sammis - Wylie Ridge	Line	AP	\$3.0	\$2.3	\$1.5	\$2.2	(\$0.2)	(\$0.2)	(\$1.0)	(\$1.1)	\$1.1	615	101			
13	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.3	\$0.2	\$0.1	\$0.2	(\$0.2)	(\$0.1)	(\$1.0)	(\$1.1)	(\$0.9)	62	81			
14	Tiltonville - Windsor	Line	AP	\$1.9	\$0.5	\$0.2	\$1.6	(\$0.3)	(\$0.1)	(\$0.5)	(\$0.7)	\$0.9	348	87			
15	Mount Storm	Transformer	AP	(\$0.3)	(\$1.6)	(\$0.2)	\$1.0	\$0.0	\$0.3	\$0.1	(\$0.1)	\$0.8	80	22			
17	Krendale - Seneca	Line	AP	\$0.6	\$0.1	\$0.1	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	158	0			
21	Hamilton - Weirton	Line	AP	\$0.6	\$0.1	\$0.1	\$0.6	(\$0.0)	(\$0.1)	(\$0.2)	(\$0.0)	\$0.5	134	15			
23	Kingwood - Pruntytown	Line	AP	\$0.3	(\$0.0)	\$0.0	\$0.3	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.3	38	1			
24	Inwood - Stonewall	Line	AP	\$0.3	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	39	0			
25	Middlebourne - Willow	Line	AP	\$0.5	\$0.1	\$0.0	\$0.4	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.3	53	12			

ComEd Control Zone**Table 7-45 ComEd Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-45)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Day Ahead				Balancing				Grand Total				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	AP South	Interface	500	(\$28.8)	(\$44.4)	(\$0.3)	\$15.4	(\$0.6)	\$0.6	\$0.0	(\$1.3)	\$14.1	1,255	735		
2	East Frankfort - Crete	Line	ComEd	(\$13.3)	(\$26.2)	(\$0.6)	\$12.3	(\$1.9)	\$0.7	\$0.0	(\$2.5)	\$9.8	835	418		
3	5004/5005 Interface	Interface	500	(\$12.0)	(\$18.9)	(\$0.0)	\$6.8	(\$0.2)	(\$0.1)	(\$0.0)	(\$0.2)	\$6.7	806	294		
4	AEP-DOM	Interface	500	(\$10.4)	(\$16.4)	(\$0.4)	\$5.6	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	\$5.7	452	76		
5	Rising	Flowgate	Midwest ISO	(\$2.0)	(\$6.0)	(\$0.0)	\$3.9	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$3.9	582	32		
6	Bedington - Black Oak	Interface	500	(\$4.9)	(\$8.2)	(\$0.0)	\$3.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$3.2	519	9		
7	Waterman - West Dekalb	Line	ComEd	(\$0.4)	(\$2.3)	\$0.1	\$1.9	\$0.2	\$0.2	(\$0.0)	(\$0.0)	\$1.9	812	159		
8	Dunes Acres - Michigan City	Flowgate	Midwest ISO	(\$2.4)	(\$3.6)	(\$0.1)	\$1.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$1.1	142	3		
9	Pleasant Valley - Belvidere	Line	ComEd	(\$0.7)	(\$2.8)	\$0.1	\$2.2	(\$0.1)	\$0.8	(\$0.3)	(\$1.2)	\$1.0	274	68		
10	Sammis - Wylie Ridge	Line	AP	(\$1.1)	(\$1.9)	(\$0.0)	\$0.8	(\$0.0)	\$0.0	\$0.0	(\$0.1)	\$0.7	305	37		
11	Burnham - Munster	Line	ComEd	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.6	(\$0.0)	(\$0.7)	(\$0.7)	0	82		
12	Glidden - West Dekalb	Line	ComEd	(\$0.0)	(\$0.6)	\$0.0	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	108	0		
13	Pleasant Prairie - Zion	Flowgate	Midwest ISO	\$0.2	(\$2.7)	\$0.6	\$3.5	\$0.3	\$0.8	(\$2.4)	(\$2.9)	\$0.6	556	21		
14	Tiltonville - Windsor	Line	AP	(\$0.9)	(\$1.5)	(\$0.0)	\$0.5	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.5	260	139		
15	Davis	Transformer	ComEd	\$0.1	(\$0.4)	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	55	0		
26	Wilton Center	Transformer	ComEd	(\$0.3)	(\$0.4)	(\$0.0)	\$0.2	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.2	23	6		
32	Belvidere - Woodstock	Line	ComEd	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	7	0		
37	Waukegan - Zion	Line	ComEd	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	12	0		
50	Silver Lake	Transformer	ComEd	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	17	0		
58	Powerton	Line	ComEd	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	23	0		

Table 7-46 ComEd Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-46)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Grand Total	Load Payments	Balancing			Grand Total			
					Generation Credits	Explicit	Total			Generation Credits	Explicit	Total				
1	East Frankfort - Crete	Line	ComEd	(\$10.1)	(\$20.0)	(\$0.0)	\$9.8	\$0.0	\$0.0	\$0.0	\$0.0	\$9.8	912	0		
2	AP South	Interface	500	(\$14.8)	(\$23.5)	(\$0.0)	\$8.7	(\$0.8)	(\$0.4)	(\$0.0)	(\$0.4)	\$8.2	1,088	216		
3	Pleasant Valley - Belvidere	Line	ComEd	(\$1.0)	(\$7.9)	\$0.0	\$6.9	\$0.7	\$0.3	(\$0.0)	\$0.4	\$7.4	477	78		
4	Kammer	Transformer	500	(\$11.0)	(\$18.7)	(\$0.0)	\$7.7	(\$0.8)	(\$0.1)	(\$0.1)	(\$0.8)	\$7.0	1,021	504		
5	Wylie Ridge	Transformer	AP	(\$7.9)	(\$10.9)	(\$0.0)	\$3.0	(\$0.8)	(\$1.5)	\$0.0	\$0.8	\$3.8	354	335		
6	West	Interface	500	(\$11.3)	(\$14.9)	(\$0.0)	\$3.5	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$3.5	380	55		
7	Glidden - West Dekalb	Line	ComEd	(\$0.2)	(\$3.4)	\$0.0	\$3.3	\$0.0	\$0.0	\$0.0	\$0.0	\$3.3	582	0		
8	Mount Storm - Pruntytown	Line	AP	(\$4.0)	(\$6.6)	(\$0.0)	\$2.6	(\$0.1)	(\$0.3)	(\$0.0)	\$0.2	\$2.9	455	17		
9	Cloverdale - Lexington	Line	AEP	(\$4.0)	(\$7.0)	\$0.0	\$3.0	(\$0.5)	(\$0.3)	(\$0.0)	(\$0.2)	\$2.7	571	220		
10	5004/5005 Interface	Interface	500	(\$4.6)	(\$6.9)	(\$0.0)	\$2.4	(\$0.6)	(\$0.9)	(\$0.0)	\$0.3	\$2.6	256	191		
11	Sliver Lake - Cherry Valley	Line	ComEd	\$0.0	(\$2.3)	\$0.1	\$2.4	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$2.3	215	3		
12	Cherry Valley	Transformer	ComEd	\$0.2	(\$2.0)	\$0.0	\$2.2	\$0.0	\$0.0	\$0.0	\$0.0	\$2.2	14	0		
13	Sammis - Wylie Ridge	Line	AP	(\$3.0)	(\$5.4)	(\$0.0)	\$2.4	(\$0.2)	(\$0.1)	(\$0.0)	(\$0.1)	\$2.2	615	101		
14	Electric Jct - Nelson	Line	ComEd	\$0.0	(\$1.5)	\$0.1	\$1.5	\$1.5	\$0.9	(\$0.1)	\$0.5	\$2.0	183	104		
15	Dunes Acres - Michigan City	Flowgate	Midwest ISO	(\$6.8)	(\$10.8)	(\$0.0)	\$3.9	(\$2.2)	(\$0.5)	(\$0.3)	(\$2.0)	\$2.0	429	270		
16	Quad Cities - Cordova	Line	ComEd	\$0.2	(\$1.0)	\$0.0	\$1.3	(\$0.0)	\$0.1	\$0.0	(\$0.1)	\$1.2	97	15		
18	Kincaid - Pana North	Line	ComEd	(\$0.4)	(\$1.5)	(\$0.0)	\$1.1	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	281	0		
19	Burnham - Munster	Line	ComEd	(\$1.7)	(\$2.8)	(\$0.0)	\$1.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.0	107	0		
27	Waterman - West Dekalb	Line	ComEd	(\$0.1)	(\$0.6)	\$0.0	\$0.5	\$0.1	(\$0.0)	(\$0.0)	\$0.1	\$0.5	424	9		
35	Paddock	Transformer	ComEd	(\$0.0)	(\$0.3)	(\$0.0)	\$0.3	\$0.1	\$0.2	\$0.1	\$0.0	\$0.3	21	77		

DAY Control Zone**Table 7-47 DAY Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-47)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total					
1	AP South	Interface	500	(\$1.7)	(\$2.9)	(\$0.1)	\$1.1	(\$0.0)	\$0.2	\$0.1	(\$0.2)	\$0.9	1,255	735		
2	5004/5005 Interface	Interface	500	(\$0.6)	(\$1.4)	(\$0.0)	\$0.8	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.7	806	294		
3	AEP-DOM	Interface	500	(\$0.7)	(\$1.4)	(\$0.0)	\$0.7	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.7	452	76		
4	Bedington - Black Oak	Interface	500	(\$0.3)	(\$0.6)	(\$0.0)	\$0.3	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.3	519	9		
5	East Frankfort - Crete	Line	ComEd	\$0.1	\$0.3	\$0.0	(\$0.2)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.2)	835	418		
6	Sporn - Kyger Creek	Line	AEP	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	31	0		
7	Kanawha River	Transformer	AEP	(\$0.1)	(\$0.1)	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	158	11		
8	Rising	Flowgate	Midwest ISO	\$0.0	\$0.1	(\$0.0)	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)	582	32		
9	Tiltonsville - Windsor	Line	AP	(\$0.1)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	260	139		
10	Baker - Broadford	Line	AEP	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.1)	10	74		
11	Cloverdale - Lexington	Line	AEP	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.1	154	94		
12	Sammis - Wylie Ridge	Line	AP	(\$0.1)	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	305	37		
13	Kanawha - Kincaid	Line	AEP	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	207	0		
14	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	142	3		
15	Pleasant Prairie - Zion	Flowgate	Midwest ISO	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	556	21		

Table 7-48 DAY Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-48)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Load Payments	Day Ahead			Load Payments	Balancing			Grand Total				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total					
1	Kammer	Transformer	500	(\$0.8)	(\$1.9)	(\$0.0)	\$1.0	\$0.2	\$0.2	\$0.0	\$0.0	\$1.1	1,021	504		
2	West	Interface	500	(\$0.8)	(\$1.4)	\$0.0	\$0.7	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.7	380	55		
3	AP South	Interface	500	(\$1.3)	(\$1.9)	\$0.0	\$0.6	\$0.1	\$0.1	(\$0.0)	(\$0.1)	\$0.5	1,088	216		
4	Wylie Ridge	Transformer	AP	(\$0.6)	(\$1.1)	(\$0.0)	\$0.5	\$0.2	\$0.2	\$0.0	(\$0.0)	\$0.4	354	335		
5	Cloverdale - Lexington	Line	AEP	(\$0.3)	(\$0.7)	\$0.0	\$0.5	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.4	571	220		
6	Sammis - Wylie Ridge	Line	AP	(\$0.2)	(\$0.4)	(\$0.0)	\$0.2	\$0.0	\$0.1	(\$0.0)	(\$0.0)	\$0.2	615	101		
7	Pierce - Foster	Flowgate	Midwest ISO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	\$0.0	(\$0.2)	(\$0.2)	0	4		
8	Kammer - Ormet	Line	AEP	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	514	509		
9	Mount Storm	Transformer	AP	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.1	80	22		
10	5004/5005 Interface	Interface	500	(\$0.4)	(\$0.5)	\$0.0	\$0.1	\$0.1	\$0.1	(\$0.0)	(\$0.0)	\$0.1	256	191		
11	Kanawha River	Transformer	AEP	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	159	37		
12	AEP-DOM	Interface	500	(\$0.1)	(\$0.1)	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	96	56		
13	Breed - Wheatland	Line	AEP	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	245	0		
14	East Frankfort - Crete	Line	ComEd	\$0.1	\$0.2	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	912	0		
15	Kanawha - Kincaid	Line	AEP	(\$0.1)	(\$0.1)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	291	0		

DLCO Control Zone**Table 7-49 DLCO Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-49)**

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Load Payments	Day Ahead			Total	Load Payments	Balancing			Grand Total	Day Ahead	Real Time	
					Generation Credits	Explicit	Generation Credits			Explicit	Total					
1	Crescent	Transformer	DLCO	\$5.2	\$0.0	\$0.1	\$5.3	(\$0.0)	(\$0.5)	(\$0.2)	\$0.3	\$5.6	310	58		
2	AP South	Interface	500	(\$19.5)	(\$24.6)	(\$0.1)	\$5.0	(\$0.8)	(\$0.1)	\$0.2	(\$0.6)	\$4.4	1,255	735		
3	Collier - Elwyn	Line	DLCO	\$1.9	\$0.3	\$0.1	\$1.7	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$1.7	165	25		
4	5004/5005 Interface	Interface	500	(\$6.5)	(\$8.0)	(\$0.1)	\$1.5	(\$0.2)	(\$0.1)	\$0.0	(\$0.1)	\$1.4	806	294		
5	AEP-DOM	Interface	500	(\$4.3)	(\$5.7)	(\$0.0)	\$1.4	(\$0.2)	(\$0.1)	\$0.0	(\$0.1)	\$1.3	452	76		
6	Bedington - Black Oak	Interface	500	(\$3.0)	(\$4.0)	(\$0.0)	\$0.9	(\$0.1)	(\$0.1)	\$0.0	(\$0.0)	\$0.8	519	9		
7	Samms - Wylie Ridge	Line	AP	(\$1.3)	(\$2.1)	(\$0.0)	\$0.8	(\$0.1)	\$0.1	\$0.0	(\$0.2)	\$0.6	305	37		
8	East Frankfort - Crete	Line	ComEd	\$0.6	\$0.9	(\$0.0)	(\$0.4)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.4)	835	418		
9	Baker - Broadford	Line	AEP	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	10	74		
10	Collier	Transformer	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.1	0	5		
11	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.1	\$0.2	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	142	3		
12	Mount Storm - Pruntytown	Line	AP	(\$0.6)	(\$0.7)	(\$0.0)	\$0.2	(\$0.1)	\$0.0	\$0.0	(\$0.1)	\$0.0	87	64		
13	Kanawha River	Transformer	AEP	(\$0.1)	(\$0.2)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	158	11		
14	Dutch Fork - Windsor	Line	AP	(\$0.1)	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	119	3		
15	Cloverdale - Lexington	Line	AEP	(\$0.1)	(\$0.2)	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	154	94		
21	Cheswick - Logans Ferry	Line	DLCO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	6	0		
39	Arsenal - Brunot Island	Line	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	11	8		
55	Cheswick - Logan's Ferry	Line	DLCO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0		

Table 7-50 DLCO Control Zone top congestion cost impacts (By facility): January through March year 2009 (See 2009 SOM, Table 7-50)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Grand Total	Event Hours	
				Load Payments	Day Ahead			Load Payments	Balancing			Day Ahead	Real Time				
					Generation Credits	Explicit	Total		Generation Credits	Explicit	Total						
1	Sammis - Wylie Ridge	Line	AP	(\$4.0)	(\$7.9)	(\$0.0)	\$3.9	(\$0.1)	\$0.5	\$0.0	(\$0.6)	\$3.4	615	101			
2	AP South	Interface	500	(\$6.9)	(\$10.2)	(\$0.0)	\$3.2	(\$0.4)	\$0.3	\$0.0	(\$0.7)	\$2.6	1,088	216			
3	West	Interface	500	(\$3.8)	(\$5.5)	(\$0.0)	\$1.6	(\$0.1)	\$0.0	\$0.0	(\$0.1)	\$1.5	380	55			
4	Wylie Ridge	Transformer	AP	(\$8.5)	(\$12.9)	(\$0.0)	\$4.4	(\$1.2)	\$2.2	\$0.0	(\$3.3)	\$1.1	354	335			
5	Mount Storm - Pruntytown	Line	AP	(\$1.9)	(\$2.8)	(\$0.0)	\$0.9	(\$0.1)	\$0.1	\$0.0	(\$0.1)	\$0.8	455	17			
6	East Frankfort - Crete	Line	ComEd	\$0.5	\$0.8	\$0.0	(\$0.3)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.3)	912	0			
7	Cloverdale - Lexington	Line	AEP	(\$0.6)	(\$1.0)	\$0.0	\$0.4	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.3	571	220			
8	Kammer	Transformer	500	(\$1.4)	(\$1.9)	\$0.0	\$0.5	(\$0.3)	\$0.0	(\$0.0)	(\$0.3)	\$0.2	1,021	504			
9	Beaver - Clinton	Line	DLCO	\$0.0	(\$0.2)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	11	0			
10	Krendale - Seneca	Line	AP	(\$0.5)	(\$0.7)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	158	0			
11	Ruth - Turner	Line	AEP	(\$0.4)	(\$0.6)	\$0.0	\$0.2	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.2	514	245			
12	Mount Storm	Transformer	AP	(\$0.4)	(\$0.6)	(\$0.0)	\$0.2	(\$0.0)	\$0.0	\$0.0	(\$0.1)	\$0.2	80	22			
13	Bedington - Black Oak	Interface	500	(\$0.4)	(\$0.5)	(\$0.0)	\$0.2	(\$0.0)	\$0.0	\$0.0	(\$0.1)	\$0.1	58	55			
14	Kanawha River - Bradley	Line	AEP	(\$0.3)	(\$0.4)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	24	15			
15	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.3	\$0.4	\$0.0	(\$0.2)	\$0.1	\$0.0	(\$0.0)	\$0.1	(\$0.1)	429	270			
17	Logans Ferry - Universal	Line	DLCO	\$0.0	(\$0.1)	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	20	14			
50	Beaver - Mansfield	Line	DLCO	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	6	0			
65	Collier	Transformer	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	9	0			
188	Crescent	Transformer	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	1			

Southern Region Congestion-Event Summaries**Dominion Control Zone****Table 7-51 Dominion Control Zone top congestion cost impacts (By facility): January through March 2010 (See 2009 SOM, Table 7-51)**

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time	
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total				
1	AP South	Interface	500	\$44.1	(\$13.3)	(\$0.1)	\$57.3	\$2.5	\$4.4	\$0.2	(\$1.7)	\$55.6	1,255	735	
2	AEP-DOM	Interface	500	\$15.2	\$12.4	\$0.6	\$3.4	(\$0.1)	(\$0.3)	(\$0.0)	\$0.1	\$3.5	452	76	
3	Bedington - Black Oak	Interface	500	\$7.5	\$4.8	\$0.3	\$3.1	\$0.0	\$0.1	(\$0.0)	(\$0.1)	\$3.0	519	9	
4	5004/5005 Interface	Interface	500	(\$1.9)	(\$2.9)	\$0.1	\$1.1	\$0.2	\$0.2	\$0.0	\$0.1	\$1.2	806	294	
5	Cloverdale - Lexington	Line	AEP	\$1.2	\$0.5	\$0.2	\$0.9	(\$0.2)	(\$0.5)	(\$0.3)	(\$0.0)	\$0.8	154	94	
6	East Frankfort - Crete	Line	ComEd	\$1.8	\$1.2	\$0.1	\$0.7	(\$0.1)	(\$0.3)	(\$0.1)	(\$0.0)	\$0.7	835	418	
7	Dickerson - Pleasant View	Line	Pepco	\$0.5	\$0.0	(\$0.0)	\$0.5	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.5	53	3	
8	Harrisonburg - Endless Caverns	Line	Dominion	\$0.0	(\$0.5)	(\$0.0)	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	128	0	
9	Baker - Broadford	Line	AEP	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.2)	(\$0.6)	(\$0.0)	\$0.4	\$0.4	10	74	
10	Inwood - Stonewall	Line	AP	\$0.1	(\$0.1)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	159	0	
11	Sammis - Wylie Ridge	Line	AP	\$0.6	\$0.4	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.2	305	37	
12	Messic Road - Morgan	Line	AP	\$0.2	(\$0.0)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	172	0	
13	Nipetown - Reid	Line	AP	\$0.1	(\$0.0)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.2	75	18	
14	Millville - Old Chapel	Line	AP	\$0.0	(\$0.2)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.2	41	6	
15	Crozet - Dooms	Line	Dominion	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	3	0	
17	Fredericksburg	Transformer	Dominion	(\$0.0)	(\$0.3)	(\$0.0)	\$0.3	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$0.2	29	53	
20	Endless Caverns	Transformer	Dominion	(\$0.0)	(\$0.2)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	75	0	
21	Bristers - Ox	Line	Dominion	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	2	4	
22	Edinburg	Transformer	Dominion	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	30	1	
25	Hollymead - Cash's Corner	Line	Dominion	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	5	0	

Table 7-52 Dominion Control Zone top congestion cost impacts (By facility): January through March 2009 (See 2009 SOM, Table 7-52)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total	Day Ahead	Real Time	
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total				
1	AP South	Interface	500	\$14.5	(\$16.1)	(\$0.1)	\$30.6	\$1.2	(\$0.6)	\$0.2	\$2.0	\$32.6	1,088	216	
2	Cloverdale - Lexington	Line	AEP	\$5.0	\$2.2	\$0.7	\$3.6	(\$0.0)	(\$1.6)	(\$0.8)	\$0.8	\$4.4	571	220	
3	Kammer	Transformer	500	\$3.9	\$3.3	\$0.8	\$1.4	\$0.1	(\$0.5)	(\$0.8)	(\$0.2)	\$1.1	1,021	504	
4	Wylie Ridge	Transformer	AP	\$2.5	\$1.7	\$0.4	\$1.2	(\$0.1)	(\$0.2)	(\$0.4)	(\$0.2)	\$1.0	354	335	
5	West	Interface	500	(\$2.3)	(\$3.3)	\$0.0	\$1.0	\$0.0	\$0.1	\$0.0	(\$0.1)	\$0.9	380	55	
6	Crozet - Dooms	Line	Dominion	\$0.6	(\$0.3)	\$0.0	\$0.9	(\$0.3)	(\$0.2)	(\$0.0)	(\$0.1)	\$0.8	48	26	
7	Mount Storm	Transformer	AP	\$1.0	\$0.2	\$0.1	\$0.9	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	\$0.8	80	22	
8	Clover - Farmville	Line	Dominion	(\$0.0)	(\$0.7)	\$0.0	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	41	0	
9	Sammis - Wylie Ridge	Line	AP	\$1.1	\$0.7	\$0.2	\$0.6	\$0.0	(\$0.1)	(\$0.1)	\$0.1	\$0.7	615	101	
10	Mount Storm - Pruntytown	Line	AP	\$4.8	\$4.6	\$0.6	\$0.8	\$0.0	(\$0.0)	(\$0.3)	(\$0.3)	\$0.5	455	17	
11	5004/5005 Interface	Interface	500	(\$0.3)	(\$0.6)	\$0.1	\$0.4	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.4	256	191	
12	Dunes Acres - Michigan City	Flowgate	Midwest ISO	\$0.5	\$0.3	\$0.0	\$0.2	(\$0.1)	(\$0.3)	(\$0.1)	\$0.2	\$0.4	429	270	
13	East Frankfort - Crete	Line	ComEd	\$0.8	\$0.5	\$0.1	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	912	0	
14	AEP-DOM	Interface	500	\$0.5	\$0.4	\$0.1	\$0.1	(\$0.1)	(\$0.5)	(\$0.1)	\$0.2	\$0.3	96	56	
15	Schahfer - Burr Oak	Flowgate	Midwest ISO	\$0.2	\$0.0	(\$0.0)	\$0.1	(\$0.1)	(\$0.3)	(\$0.0)	\$0.2	\$0.3	62	81	
17	Crozet - Barracks Rd	Line	Dominion	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	0	1	
21	Cranes Corner - Fredericksburg	Line	Dominion	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.3	\$0.1	(\$0.1)	(\$0.1)	0	26	
27	Clubhouse - Freeman	Line	Dominion	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	29	0	
28	Beechwood - Kerr Dam	Line	Dominion	\$0.1	(\$0.1)	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	50	39	
32	Dayton - Harrisonburg	Line	Dominion	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1	0	