

## Energy Market and Congestion Appendix

This Appendix A document reports PJM Energy Market and Congestion data for the first three months of 2012 as a supplement to Sections 2 and 10 of the *2012 Quarterly State of the Market Report for PJM: January through March*.

For detailed descriptions of the data contained here, please see the tables and figures from the *2011 State of the Market Report for PJM* that are referenced in the captions.<sup>1</sup>

### Section 2 – Energy Market

#### Zonal Real-Time, Average LMP

**Table A-1 Zonal real-time, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-16)**

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
AECO	\$51.89	\$32.66	(\$19.24)	(37.1%)
AEP	\$38.55	\$29.72	(\$8.83)	(22.9%)
AP	\$44.46	\$31.65	(\$12.80)	(28.8%)
ATSI	NA	\$30.28	NA	NA
BGE	\$51.01	\$34.93	(\$16.08)	(31.5%)
ComEd	\$34.40	\$27.26	(\$7.14)	(20.7%)
DAY	\$38.36	\$30.15	(\$8.21)	(21.4%)
DEOK	NA	\$28.60	NA	NA
DLCO	\$36.65	\$30.16	(\$6.49)	(17.7%)
Dominion	\$48.76	\$32.30	(\$16.46)	(33.8%)
DPL	\$51.24	\$36.72	(\$14.52)	(28.3%)
JCPL	\$51.84	\$32.78	(\$19.07)	(36.8%)
Met-Ed	\$49.36	\$32.02	(\$17.34)	(35.1%)
PECO	\$50.57	\$32.28	(\$18.28)	(36.2%)
PENELEC	\$44.44	\$31.33	(\$13.12)	(29.5%)
Pepco	\$50.63	\$34.25	(\$16.38)	(32.4%)
PPL	\$50.54	\$31.99	(\$18.56)	(36.7%)
PSEG	\$52.64	\$33.12	(\$19.52)	(37.1%)
RECO	\$46.94	\$32.90	(\$14.04)	(29.9%)
PJM	\$44.76	\$31.17	(\$13.59)	(30.4%)

<sup>1</sup> See the *2011 State of the Market Report for PJM*, Volume 2. <[http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2011/2011-som-pjm-volume2.pdf](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2011/2011-som-pjm-volume2.pdf)>

#### Real-Time, Average LMP by Jurisdiction

**Table A-2 Jurisdiction real-time, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-17)**

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
Delaware	\$50.51	\$33.25	(\$17.26)	(34.2%)
Illinois	\$34.40	\$27.26	(\$7.14)	(20.7%)
Indiana	\$37.37	\$29.16	(\$8.22)	(22.0%)
Kentucky	\$38.60	\$29.92	(\$8.67)	(22.5%)
Maryland	\$50.68	\$34.99	(\$15.69)	(31.0%)
Michigan	\$37.50	\$29.34	(\$8.16)	(21.8%)
New Jersey	\$52.21	\$32.95	(\$19.26)	(36.9%)
North Carolina	\$46.41	\$31.77	(\$14.64)	(31.5%)
Ohio	\$38.01	\$29.81	(\$8.20)	(21.6%)
Pennsylvania	\$47.33	\$31.67	(\$15.66)	(33.1%)
Tennessee	\$38.90	\$29.49	(\$9.40)	(24.2%)
Virginia	\$47.66	\$32.17	(\$15.48)	(32.5%)
West Virginia	\$40.00	\$30.08	(\$9.92)	(24.8%)
District of Columbia	\$50.84	\$34.82	(\$16.03)	(31.5%)

#### Hub Real-Time, Average LMP

**Table A-3 Hub real-time, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-18)**

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
AEP Gen Hub	\$35.96	\$28.09	(\$7.87)	(21.9%)
AEP-DAY Hub	\$37.63	\$29.09	(\$8.54)	(22.7%)
ATSI Gen Hub	NA	\$29.43	NA	NA
Chicago Gen Hub	\$33.44	\$26.35	(\$7.09)	(21.2%)
Chicago Hub	\$34.50	\$27.57	(\$6.93)	(20.1%)
Dominion Hub	\$47.87	\$31.44	(\$16.42)	(34.3%)
Eastern Hub	\$51.59	\$33.82	(\$17.77)	(34.5%)
N Illinois Hub	\$34.10	\$27.13	(\$6.97)	(20.4%)
New Jersey Hub	\$52.27	\$31.02	(\$21.25)	(40.7%)
Ohio Hub	\$37.63	\$29.12	(\$8.51)	(22.6%)
West Interface Hub	\$40.60	\$29.84	(\$10.76)	(26.5%)
Western Hub	\$45.82	\$31.10	(\$14.72)	(32.1%)

## Zonal Real-Time, Load-Weighted, Average LMP

Table A-4 Zonal real-time, load-weighted, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-19)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
AECO	\$54.19	\$33.68	(\$20.51)	(37.9%)
AEP	\$39.41	\$30.18	(\$9.23)	(23.4%)
AP	\$45.91	\$32.34	(\$13.57)	(29.6%)
ATSI	NA	\$30.73	NA	NA
BGE	\$53.86	\$36.06	(\$17.80)	(33.1%)
ComEd	\$35.23	\$27.66	(\$7.57)	(21.5%)
DAY	\$39.33	\$30.66	(\$8.68)	(22.1%)
DEOK	NA	\$29.07	NA	NA
DLCO	\$37.14	\$30.56	(\$6.57)	(17.7%)
Dominion	\$51.82	\$33.35	(\$18.47)	(35.6%)
DPL	\$54.14	\$37.91	(\$16.23)	(30.0%)
JCPL	\$54.19	\$33.93	(\$20.26)	(37.4%)
Met-Ed	\$51.40	\$32.95	(\$18.45)	(35.9%)
PECO	\$52.74	\$33.27	(\$19.47)	(36.9%)
PENELEC	\$45.63	\$31.92	(\$13.71)	(30.1%)
Pepco	\$53.35	\$35.41	(\$17.93)	(33.6%)
PPL	\$52.84	\$32.95	(\$19.89)	(37.6%)
PSEG	\$54.43	\$34.08	(\$20.35)	(37.4%)
RECO	\$48.68	\$34.05	(\$14.64)	(30.1%)
PJM	\$46.35	\$31.82	(\$14.53)	(31.3%)

## Real-Time, Load-Weighted, Average LMP by Jurisdiction

Table A-5 Jurisdiction real-time, load-weighted, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-20)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
Delaware	\$53.00	\$34.24	(\$18.75)	(35.4%)
Illinois	\$35.23	\$27.66	(\$7.57)	(21.5%)
Indiana	\$38.00	\$29.51	(\$8.49)	(22.3%)
Kentucky	\$39.97	\$30.54	(\$9.42)	(23.6%)
Maryland	\$53.64	\$36.16	(\$17.48)	(32.6%)
Michigan	\$38.35	\$29.76	(\$8.59)	(22.4%)
New Jersey	\$54.22	\$33.98	(\$20.24)	(37.3%)
North Carolina	\$49.24	\$32.64	(\$16.60)	(33.7%)
Ohio	\$38.72	\$30.25	(\$8.47)	(21.9%)
Pennsylvania	\$49.01	\$32.43	(\$16.58)	(33.8%)
Tennessee	\$40.74	\$30.18	(\$10.56)	(25.9%)
Virginia	\$50.53	\$33.19	(\$17.35)	(34.3%)
West Virginia	\$41.05	\$30.66	(\$10.39)	(25.3%)
District of Columbia	\$52.71	\$35.96	(\$16.75)	(31.8%)

## Zonal Day-Ahead, Average LMP

Table A-6 Zonal day-ahead, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-21)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
AECO	\$53.79	\$33.60	(\$20.18)	(37.5%)
AEP	\$38.88	\$30.50	(\$8.38)	(21.6%)
AP	\$45.20	\$32.24	(\$12.96)	(28.7%)
ATSI	NA	\$31.01	NA	NA
BGE	\$52.74	\$35.80	(\$16.94)	(32.1%)
ComEd	\$34.32	\$27.73	(\$6.59)	(19.2%)
DAY	\$38.53	\$30.91	(\$7.62)	(19.8%)
DEOK	NA	\$29.19	NA	NA
DLCO	\$36.62	\$31.19	(\$5.44)	(14.8%)
Dominion	\$50.66	\$33.23	(\$17.42)	(34.4%)
DPL	\$54.16	\$36.36	(\$17.80)	(32.9%)
JCPL	\$54.22	\$33.69	(\$20.54)	(37.9%)
Met-Ed	\$51.43	\$32.52	(\$18.91)	(36.8%)
PECO	\$53.42	\$33.05	(\$20.36)	(38.1%)
PENELEC	\$45.12	\$32.26	(\$12.86)	(28.5%)
Pepco	\$52.35	\$35.37	(\$16.98)	(32.4%)
PPL	\$52.46	\$32.40	(\$20.06)	(38.2%)
PSEG	\$55.55	\$33.97	(\$21.58)	(38.8%)
RECO	\$51.83	\$33.62	(\$18.21)	(35.1%)
PJM	\$45.60	\$31.86	(\$13.74)	(30.1%)

## Day-Ahead, Average LMP by Jurisdiction

Table A-7 Jurisdiction day-ahead, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-22)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
Delaware	\$53.27	\$33.93	(\$19.33)	(36.3%)
Illinois	\$34.32	\$27.73	(\$6.59)	(19.2%)
Indiana	\$37.72	\$29.52	(\$8.20)	(21.8%)
Kentucky	\$38.95	\$30.57	(\$8.38)	(21.5%)
Maryland	\$52.49	\$35.71	(\$16.78)	(32.0%)
Michigan	\$37.97	\$29.64	(\$8.33)	(21.9%)
New Jersey	\$54.89	\$33.83	(\$21.06)	(38.4%)
North Carolina	\$48.94	\$32.88	(\$16.07)	(32.8%)
Ohio	\$38.00	\$30.38	(\$7.62)	(20.1%)
Pennsylvania	\$48.98	\$32.38	(\$16.60)	(33.9%)
Tennessee	\$39.25	\$29.59	(\$9.66)	(24.6%)
Virginia	\$49.46	\$33.00	(\$16.46)	(33.3%)
West Virginia	\$40.59	\$30.98	(\$9.61)	(23.7%)
District of Columbia	\$52.47	\$36.01	(\$16.46)	(31.4%)

## Zonal Day-Ahead, Load-Weighted LMP

Table A-8 Zonal day-ahead, load-weighted, average LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-23)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
AECO	\$56.13	\$34.50	(\$21.63)	(38.5%)
AEP	\$39.70	\$30.91	(\$8.79)	(22.1%)
AP	\$46.59	\$32.82	(\$13.77)	(29.6%)
ATSI	NA	\$31.38	NA	NA
BGE	\$55.47	\$36.78	(\$18.70)	(33.7%)
ComEd	\$34.93	\$28.10	(\$6.83)	(19.6%)
DAY	\$39.41	\$31.35	(\$8.06)	(20.4%)
DEOK	NA	\$29.52	NA	NA
DLCO	\$37.25	\$31.65	(\$5.60)	(15.0%)
Dominion	\$53.76	\$34.14	(\$19.62)	(36.5%)
DPL	\$57.23	\$37.42	(\$19.81)	(34.6%)
JCPL	\$56.60	\$34.73	(\$21.87)	(38.6%)
Met-Ed	\$53.28	\$33.08	(\$20.20)	(37.9%)
PECO	\$56.02	\$33.90	(\$22.12)	(39.5%)
PENELEC	\$46.51	\$32.66	(\$13.85)	(29.8%)
Pepco	\$54.87	\$36.18	(\$18.68)	(34.1%)
PPL	\$54.72	\$33.10	(\$21.61)	(39.5%)
PSEG	\$57.49	\$34.89	(\$22.60)	(39.3%)
RECO	\$53.93	\$34.46	(\$19.47)	(36.1%)
PJM	\$47.14	\$32.42	(\$14.73)	(31.2%)

## Day-Ahead, Load-Weighted, Average LMP by Jurisdiction

Table A-9 Jurisdiction day-ahead, load weighted LMP (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table C-24)

	2011 (Jan - Mar)	2012 (Jan - Mar)	Difference	Difference as Percent of 2011
Delaware	\$55.95	\$34.83	(\$21.12)	(37.7%)
Illinois	\$34.93	\$28.10	(\$6.83)	(19.6%)
Indiana	\$38.35	\$29.87	(\$8.49)	(22.1%)
Kentucky	\$40.06	\$31.01	(\$9.05)	(22.6%)
Maryland	\$55.23	\$36.59	(\$18.64)	(33.7%)
Michigan	\$38.64	\$30.01	(\$8.63)	(22.3%)
New Jersey	\$56.98	\$34.78	(\$22.20)	(39.0%)
North Carolina	\$52.45	\$33.78	(\$18.67)	(35.6%)
Ohio	\$38.69	\$30.75	(\$7.94)	(20.5%)
Pennsylvania	\$50.78	\$32.97	(\$17.82)	(35.1%)
Tennessee	\$40.63	\$30.05	(\$10.58)	(26.0%)
Virginia	\$52.25	\$33.81	(\$18.44)	(35.3%)
West Virginia	\$41.51	\$31.47	(\$10.04)	(24.2%)
District of Columbia	\$54.61	\$36.90	(\$17.71)	(32.4%)

## Zonal Price Convergence

Table A-10 Zonal day-ahead and real-time average LMP (Dollars per MWh): January through March 2012 (See 2011 SOM, Table C-25)

	Day Ahead	Real Time	Difference	Difference as Percent of Real Time
AECO	\$33.60	\$32.66	(\$0.95)	(2.8%)
AEP	\$30.50	\$29.72	(\$0.78)	(2.6%)
AP	\$32.24	\$31.65	(\$0.59)	(1.8%)
ATSI	\$31.01	\$30.28	(\$0.73)	(2.3%)
BGE	\$35.80	\$34.93	(\$0.87)	(2.4%)
ComEd	\$27.73	\$27.26	(\$0.47)	(1.7%)
DAY	\$30.91	\$30.15	(\$0.76)	(2.5%)
DEOK	\$29.19	\$28.60	(\$0.59)	(2.0%)
DLCO	\$31.19	\$30.16	(\$1.03)	(3.3%)
Dominion	\$33.23	\$32.30	(\$0.93)	(2.8%)
DPL	\$36.36	\$36.72	\$0.36	1.0%
JCPL	\$33.69	\$32.78	(\$0.91)	(2.7%)
Met-Ed	\$32.52	\$32.02	(\$0.51)	(1.6%)
PECO	\$33.05	\$32.28	(\$0.77)	(2.3%)
PENELEC	\$32.26	\$31.33	(\$0.93)	(2.9%)
Pepco	\$35.37	\$34.25	(\$1.11)	(3.1%)
PPL	\$32.40	\$31.99	(\$0.41)	(1.3%)
PSEG	\$33.97	\$33.12	(\$0.86)	(2.5%)
RECO	\$33.62	\$32.90	(\$0.72)	(2.1%)
PJM	\$31.86	\$31.17	(\$0.69)	(2.2%)

## Price Convergence by Jurisdiction

Table A-11 Jurisdiction day-ahead and real-time average LMP (Dollars per MWh): January through March 2012 (See 2011 SOM, Table C-26)

	Day Ahead	Real Time	Difference	Difference as Percent of Real Time
Delaware	\$33.93	\$33.25	(\$0.69)	(2.0%)
Illinois	\$27.73	\$27.26	(\$0.47)	(1.7%)
Indiana	\$29.52	\$29.16	(\$0.36)	(1.2%)
Kentucky	\$30.57	\$29.92	(\$0.65)	(2.1%)
Maryland	\$35.71	\$34.99	(\$0.72)	(2.0%)
Michigan	\$29.64	\$29.34	(\$0.30)	(1.0%)
New Jersey	\$33.83	\$32.95	(\$0.88)	(2.6%)
North Carolina	\$32.88	\$31.77	(\$1.11)	(3.4%)
Ohio	\$30.38	\$29.81	(\$0.57)	(1.9%)
Pennsylvania	\$32.38	\$31.67	(\$0.71)	(2.2%)
Tennessee	\$29.59	\$29.49	(\$0.10)	(0.3%)
Virginia	\$33.00	\$32.17	(\$0.83)	(2.5%)
West Virginia	\$30.98	\$30.08	(\$0.90)	(2.9%)
District of Columbia	\$36.01	\$34.82	(\$1.20)	(3.3%)

## Locational Marginal Price (LMP)

## Zonal and Hub Average LMP Components

Table A-12 Zonal real-time, average LMP components (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table G-2)

	2011 (Jan-Mar)				2012 (Jan-Mar)			
	Real-Time LMP	Energy Component	Congestion Component	Loss Component	Real-Time LMP	Energy Component	Congestion Component	Loss Component
AECO	\$51.89	\$44.70	\$4.81	\$2.38	\$30.74	\$30.36	(\$0.57)	\$0.95
AEP	\$38.55	\$44.70	(\$4.46)	(\$1.69)	\$29.35	\$30.36	(\$0.30)	(\$0.71)
AP	\$44.46	\$44.70	(\$0.31)	\$0.06	\$30.86	\$30.36	\$0.33	\$0.18
ATSI	NA	NA	NA	NA	\$29.75	\$30.36	(\$0.73)	\$0.12
BGE	\$51.01	\$44.70	\$4.19	\$2.12	\$35.21	\$30.36	\$3.16	\$1.69
ComEd	\$34.40	\$44.70	(\$7.15)	(\$3.15)	\$27.30	\$30.36	(\$1.29)	(\$1.77)
DAY	\$38.36	\$44.70	(\$5.16)	(\$1.18)	\$29.84	\$30.36	(\$0.43)	(\$0.09)
DEOK	NA	NA	NA	NA	\$28.49	\$30.36	(\$0.36)	(\$1.51)
DLCO	\$36.65	\$44.70	(\$6.76)	(\$1.29)	\$29.38	\$30.36	(\$0.23)	(\$0.75)
Dominion	\$48.76	\$44.70	\$3.36	\$0.70	\$33.57	\$30.36	\$1.80	\$1.41
DPL	\$51.24	\$44.70	\$3.53	\$3.01	\$31.84	\$30.36	\$1.06	\$0.42
JCPL	\$51.84	\$44.70	\$4.48	\$2.67	\$30.87	\$30.36	(\$0.57)	\$1.09
Met-Ed	\$49.36	\$44.70	\$3.46	\$1.20	\$30.24	\$30.36	(\$0.55)	\$0.44
PECO	\$50.57	\$44.70	\$3.95	\$1.91	\$30.41	\$30.36	(\$0.61)	\$0.67
PENELEC	\$44.44	\$44.70	(\$0.72)	\$0.46	\$30.24	\$30.36	(\$0.62)	\$0.51
Pepco	\$50.63	\$44.70	\$4.64	\$1.29	\$29.99	\$30.36	(\$0.76)	\$0.39
PPL	\$50.54	\$44.70	\$4.68	\$1.16	\$31.22	\$30.36	(\$0.33)	\$1.19
PSEG	\$52.64	\$44.70	\$5.33	\$2.61	\$33.98	\$30.36	\$2.46	\$1.16
RECO	\$46.94	\$44.70	(\$0.16)	\$2.39	\$30.79	\$30.36	(\$0.61)	\$1.05
PJM	\$44.76	\$44.70	\$0.03	\$0.02	\$30.74	\$30.36	\$0.05	\$0.34

Table A-13 Hub real-time, average LMP components (Dollars per MWh): January through March 2011 and 2012 (See 2010 SOM, Table G-3)

	2011 (Jan-Mar)				2012 (Jan-Mar)			
	Real-Time LMP	Energy Component	Congestion Component	Loss Component	Real-Time LMP	Energy Component	Congestion Component	Loss Component
AEP Gen Hub	\$35.96	\$44.70	(\$5.63)	(\$3.12)	\$28.09	\$30.36	(\$0.66)	(\$1.60)
AEP-DAY Hub	\$37.63	\$44.70	(\$5.15)	(\$1.92)	\$29.09	\$30.36	(\$0.40)	(\$0.86)
ATSI Gen Hub	NA	NA	NA	NA	\$29.43	\$30.36	(\$0.68)	(\$0.25)
Chicago Gen Hub	\$33.44	\$44.70	(\$7.53)	(\$3.73)	\$26.35	\$30.36	(\$1.82)	(\$2.19)
Chicago Hub	\$34.50	\$44.70	(\$7.07)	(\$3.12)	\$27.57	\$30.36	(\$1.07)	(\$1.72)
Dominion Hub	\$47.87	\$44.70	\$2.91	\$0.25	\$31.44	\$30.36	\$0.95	\$0.13
Eastern Hub	\$51.59	\$44.70	\$3.74	\$3.15	\$33.82	\$30.36	\$1.93	\$1.53
N Illinois Hub	\$34.10	\$44.70	(\$7.22)	(\$3.37)	\$27.13	\$30.36	(\$1.32)	(\$1.90)
New Jersey Hub	\$52.27	\$44.70	\$4.99	\$2.57	\$31.02	\$30.36	(\$0.44)	\$1.10
Ohio Hub	\$37.63	\$44.70	(\$5.16)	(\$1.90)	\$29.12	\$30.36	(\$0.38)	(\$0.86)
West Interface Hub	\$40.60	\$44.70	(\$2.80)	(\$1.30)	\$29.84	\$30.36	(\$0.12)	(\$0.40)
Western Hub	\$45.82	\$44.70	\$1.05	\$0.06	\$31.10	\$30.36	\$0.53	\$0.21

Table A-14 Zonal day-ahead, average LMP components (Dollars per MWh): January through March 2011 and 2012 (See 2011 SOM, Table G-5)

	2011 (Jan-Mar)				2012 (Jan-Mar)			
	Day-Ahead LMP	Energy Component	Congestion Component	Loss Component	Day-Ahead LMP	Energy Component	Congestion Component	Loss Component
AECO	\$53.79	\$45.81	\$5.01	\$2.97	\$31.53	\$30.77	(\$0.15)	\$0.91
AEP	\$38.88	\$45.81	(\$4.66)	(\$2.27)	\$29.81	\$30.77	(\$0.16)	(\$0.80)
AP	\$45.20	\$45.81	(\$0.52)	(\$0.09)	\$31.19	\$30.77	\$0.27	\$0.16
ATSI	NA	NA	NA	NA	\$30.09	\$30.77	(\$0.62)	(\$0.05)
BGE	\$52.74	\$45.81	\$4.57	\$2.36	\$35.40	\$30.77	\$2.81	\$1.83
ComEd	\$34.32	\$45.81	(\$7.78)	(\$3.70)	\$27.38	\$30.77	(\$1.50)	(\$1.89)
DAY	\$38.53	\$45.81	(\$5.42)	(\$1.85)	\$30.25	\$30.77	(\$0.27)	(\$0.25)
DEOK	NA	NA	NA	NA	\$28.74	\$30.77	(\$0.12)	(\$1.91)
DLCO	\$36.62	\$45.81	(\$7.42)	(\$1.76)	\$29.99	\$30.77	\$0.05	(\$0.83)
Dominion	\$50.66	\$45.81	\$3.73	\$1.12	\$33.53	\$30.77	\$1.10	\$1.66
DPL	\$54.16	\$45.81	\$4.69	\$3.67	\$32.47	\$30.77	\$1.13	\$0.56
JCPL	\$54.22	\$45.81	\$5.01	\$3.41	\$31.64	\$30.77	(\$0.13)	\$1.00
Met-Ed	\$51.43	\$45.81	\$4.29	\$1.33	\$30.83	\$30.77	(\$0.31)	\$0.38
PECO	\$53.42	\$45.81	\$5.05	\$2.56	\$31.06	\$30.77	(\$0.36)	\$0.65
PENELEC	\$45.12	\$45.81	(\$0.91)	\$0.22	\$30.94	\$30.77	(\$0.51)	\$0.69
Pepco	\$52.35	\$45.81	\$4.85	\$1.69	\$30.53	\$30.77	(\$0.51)	\$0.27
PPL	\$52.46	\$45.81	\$5.42	\$1.23	\$31.93	\$30.77	(\$0.03)	\$1.19
PSEG	\$55.55	\$45.81	\$6.16	\$3.58	\$34.62	\$30.77	\$2.29	\$1.56
RECO	\$51.83	\$45.81	\$2.92	\$3.10	\$31.47	\$30.77	(\$0.36)	\$1.07
PJM	\$45.60	\$45.81	(\$0.11)	(\$0.11)	\$31.23	\$30.77	\$0.14	\$0.33

## Energy Costs

## Zonal Energy Costs

Table A-15 Energy costs by control zone and type (Dollars (Millions): January through March 2012)

	Energy Costs by Control Zone (Millions)										
	Day Ahead				Balancing				Inadvertent Charges	Grand Total	
	Load	Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit			Total
AECO		\$80.5	\$20.3	\$0.0	\$60.3	\$0.4	(\$2.9)	\$0.0	\$3.3	\$0.1	\$63.6
AEP	\$1,212.9		\$1,300.6	\$0.0	(\$87.7)	(\$16.3)	(\$4.1)	\$0.0	(\$12.2)	\$1.2	(\$98.7)
AP	\$417.5		\$426.5	\$0.0	(\$8.9)	(\$4.8)	(\$39.5)	\$0.0	\$34.7	\$0.4	\$26.2
ATSI	\$571.1		\$504.7	\$0.0	\$66.4	(\$2.0)	(\$6.9)	\$0.0	\$4.8	\$0.6	\$71.8
BGE	\$395.5		\$276.4	\$0.0	\$119.1	\$6.1	(\$4.6)	\$0.0	\$10.6	\$0.3	\$130.0
ComEd	\$1,182.5		\$1,418.2	\$0.0	(\$235.7)	(\$15.6)	(\$17.1)	\$0.0	\$1.5	\$0.8	(\$233.4)
DAY	\$149.1		\$148.7	\$0.0	\$0.5	\$0.7	(\$9.9)	\$0.0	\$10.6	\$0.2	\$11.2
DEOK	\$198.9		\$158.1	\$0.0	\$40.9	\$2.3	(\$8.2)	\$0.0	\$10.4	\$0.2	\$51.6
DLCO	\$116.9		\$153.2	\$0.0	(\$36.3)	\$2.4	(\$2.2)	\$0.0	\$4.6	\$0.8	(\$31.0)
Dominion	\$1,376.7		\$1,344.3	\$0.0	\$32.4	(\$6.9)	(\$34.6)	\$0.0	\$27.7	\$0.2	\$60.3
DPL	\$152.9		\$60.1	\$0.0	\$92.8	\$2.5	\$10.5	\$0.0	(\$8.0)	\$0.1	\$84.9
External	\$135.5		\$158.5	\$0.0	(\$23.0)	\$26.6	\$58.7	\$0.0	(\$32.1)	\$0.0	(\$55.1)
JCPL	\$182.3		\$98.2	\$0.0	\$84.1	(\$5.1)	\$1.1	\$0.0	(\$6.2)	\$0.2	\$78.1
Met-Ed	\$162.0		\$209.8	\$0.0	(\$47.8)	(\$1.7)	(\$1.7)	\$0.0	\$0.0	\$0.1	(\$47.6)
PECO	\$399.3		\$576.1	\$0.0	(\$176.8)	(\$5.3)	\$1.7	\$0.0	(\$7.0)	\$0.3	(\$183.5)
PENELEC	\$418.4		\$509.8	\$0.0	(\$91.4)	(\$27.5)	\$7.2	\$0.0	(\$34.7)	\$0.2	(\$125.9)
Pepco	\$460.0		\$267.9	\$0.0	\$192.1	(\$11.7)	\$5.1	\$0.0	(\$16.8)	\$0.3	\$175.5
PPL	\$416.9		\$515.2	\$0.0	(\$98.3)	\$7.9	\$0.4	\$0.0	\$7.4	\$0.4	(\$90.5)
PSEG	\$367.3		\$374.9	\$0.0	(\$7.6)	\$1.0	\$28.7	\$0.0	(\$27.6)	\$0.4	(\$34.9)
RECO	\$11.0		\$0.3	\$0.0	\$10.7	(\$0.2)	(\$0.2)	\$0.0	\$0.0	\$0.0	\$10.7
Total	\$8,407.3		\$8,521.8	\$0.0	(\$114.4)	(\$47.3)	(\$18.4)	\$0.0	(\$28.9)	\$6.8	(\$136.5)

Table A-16 Monthly energy costs by control zone (Dollars (Millions)): January through March 2011 and 2012

	Energy Costs by Control Zone (Millions)									
	2011 (Jan-Mar)					2012 (Jan-Mar)				
	Jan	Feb	Mar	Inadvertent Charge	Grand Total	Jan	Feb	Mar	Inadvertent Charge	Grand Total
AECO	\$37.4	\$27.3	\$28.1	\$0.1	\$92.8	\$24.4	\$20.6	\$18.6	\$0.1	\$63.6
AEP	(\$86.5)	(\$56.4)	(\$67.0)	\$1.4	(\$208.4)	(\$54.1)	(\$37.2)	(\$8.6)	\$1.2	(\$98.7)
AP	\$6.8	\$7.8	\$11.2	\$0.5	\$26.3	\$25.7	\$3.5	(\$3.4)	\$0.4	\$26.2
ATSI	NA	NA	NA	\$0.0	\$0.0	\$33.2	\$22.0	\$16.0	\$0.6	\$71.8
BGE	\$42.8	\$52.6	\$35.4	\$0.3	\$131.2	\$39.9	\$47.8	\$42.0	\$0.3	\$130.0
ComEd	(\$123.9)	(\$87.6)	(\$96.8)	\$1.0	(\$307.4)	(\$100.0)	(\$74.5)	(\$59.7)	\$0.8	(\$233.4)
DAY	\$0.3	(\$14.8)	(\$9.9)	\$0.2	(\$24.1)	\$3.3	\$7.3	\$0.6	\$0.2	\$11.2
DEOK	NA	NA	NA	\$0.0	\$0.0	\$12.4	\$4.5	\$34.4	\$0.2	\$51.6
DLCO	(\$13.9)	(\$14.2)	\$10.9	\$0.9	(\$16.1)	(\$6.6)	(\$13.6)	(\$11.6)	\$0.8	(\$31.0)
Dominion	\$80.2	\$49.6	\$36.0	\$0.2	\$166.0	\$30.0	\$12.8	\$17.3	\$0.2	\$60.3
DPL	\$82.2	\$51.3	\$40.5	\$0.1	\$174.1	\$35.8	\$26.9	\$22.1	\$0.1	\$84.9
External	(\$38.7)	(\$2.2)	\$16.3	\$0.0	(\$24.6)	(\$12.1)	(\$15.1)	(\$27.9)	\$0.0	(\$55.1)
JCPL	\$72.7	\$44.5	\$37.4	\$0.2	\$154.8	\$34.6	\$24.6	\$18.7	\$0.2	\$78.1
Met-Ed	(\$23.1)	(\$16.6)	(\$16.6)	\$0.2	(\$56.2)	(\$10.7)	(\$21.2)	(\$15.9)	\$0.1	(\$47.6)
PECO	(\$51.3)	(\$55.0)	(\$71.3)	\$0.4	(\$177.2)	(\$75.5)	(\$62.7)	(\$45.6)	\$0.3	(\$183.5)
PENELEC	(\$110.0)	(\$67.2)	(\$39.7)	\$0.2	(\$216.7)	(\$61.6)	(\$18.4)	(\$46.0)	\$0.2	(\$125.9)
Pepco	\$80.2	\$58.5	\$57.2	\$0.3	\$196.2	\$66.8	\$58.8	\$49.7	\$0.3	\$175.5
PPL	(\$35.7)	(\$29.2)	(\$27.6)	\$0.4	(\$92.1)	(\$38.5)	(\$20.9)	(\$31.4)	\$0.4	(\$90.5)
PSEG	(\$22.2)	(\$16.8)	(\$6.8)	\$0.4	(\$45.4)	(\$8.8)	(\$13.1)	(\$13.3)	\$0.4	(\$34.9)
RECO	\$7.2	\$4.9	\$4.8	\$0.0	\$16.8	\$4.1	\$3.3	\$3.3	\$0.0	\$10.7
Total	(\$95.5)	(\$63.5)	(\$57.8)	\$6.9	(\$209.9)	(\$57.9)	(\$44.7)	(\$40.7)	\$6.8	(\$136.5)

## Marginal Losses

## Zonal Marginal Loss Costs

Table A-17 Marginal loss costs by control zone and type (Dollars (Millions)): January through March 2012 (See 2011 SOM, Table G-43)

	Marginal Loss Costs by Control Zone (Millions)									
	Day Ahead				Balancing				Inadvertent Charges	Grand Total
	Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		
AECO	\$2.6	\$0.5	\$0.1	\$2.2	(\$0.0)	(\$0.1)	(\$0.1)	\$0.0	\$0.0	\$2.2
AEP	(\$34.2)	(\$84.2)	\$7.1	\$57.1	\$1.0	\$0.8	(\$6.2)	(\$6.0)	\$0.0	\$51.1
AP	\$1.9	(\$13.9)	\$3.3	\$19.0	\$0.2	\$1.3	(\$3.1)	(\$4.2)	\$0.0	\$14.8
ATSI	(\$0.6)	(\$16.6)	\$0.7	\$16.7	\$1.6	\$0.5	(\$1.1)	\$0.0	\$0.0	\$16.7
BGE	\$21.2	\$10.3	\$1.3	\$12.1	\$0.5	(\$0.1)	(\$1.3)	(\$0.6)	\$0.0	\$11.5
ComEd	(\$77.7)	(\$121.5)	\$0.2	\$44.0	\$1.4	\$1.3	(\$0.9)	(\$0.8)	\$0.0	\$43.2
DAY	(\$1.7)	(\$10.5)	\$0.6	\$9.4	(\$0.1)	\$0.6	(\$0.4)	(\$1.1)	\$0.0	\$8.3
DEOK	(\$12.6)	(\$12.4)	\$0.0	(\$0.2)	\$1.1	\$0.5	(\$0.7)	(\$0.1)	\$0.0	(\$0.3)
DLCO	(\$3.2)	(\$6.7)	\$0.3	\$3.7	(\$0.1)	\$0.1	(\$0.3)	(\$0.4)	\$0.0	\$3.3
Dominion	\$24.0	\$4.2	\$1.6	\$21.4	\$0.8	\$0.4	(\$1.4)	(\$1.0)	\$0.0	\$20.5
DPL	\$10.2	\$1.4	\$1.4	\$10.2	(\$0.8)	(\$0.1)	(\$1.0)	(\$1.7)	\$0.0	\$8.5
External	(\$5.3)	(\$8.7)	(\$12.4)	(\$9.1)	(\$0.7)	(\$2.0)	\$5.2	\$6.6	\$0.0	(\$2.5)
JCPL	\$6.3	\$1.6	\$0.4	\$5.0	(\$0.1)	\$0.1	(\$0.4)	(\$0.6)	\$0.0	\$4.4
Met-Ed	\$1.7	(\$1.7)	(\$0.0)	\$3.4	\$0.0	(\$0.1)	\$0.0	\$0.2	\$0.0	\$3.5
PECO	\$8.5	\$0.1	(\$0.1)	\$8.3	(\$0.0)	(\$0.0)	\$0.0	\$0.1	\$0.0	\$8.4
PENELEC	\$0.5	(\$9.9)	\$0.7	\$11.1	\$0.5	\$0.2	(\$0.6)	(\$0.3)	\$0.0	\$10.8
Pepco	\$23.6	\$12.4	\$1.1	\$12.3	(\$0.4)	\$0.0	(\$0.9)	(\$1.3)	\$0.0	\$11.0
PPL	\$3.8	(\$4.5)	(\$0.3)	\$8.0	\$0.3	\$0.1	\$0.3	\$0.5	\$0.0	\$8.5
PSEG	\$14.3	\$3.3	\$2.1	\$13.2	\$0.1	\$1.3	(\$2.0)	(\$3.2)	\$0.0	\$10.0
RECO	\$0.4	\$0.0	\$0.1	\$0.4	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.4
Total	(\$16.5)	(\$256.8)	\$8.0	\$248.3	\$5.4	\$4.7	(\$14.6)	(\$13.9)	\$0.0	\$234.4

Table A-18 Monthly marginal loss costs by control zone (Dollars (Millions)): January through March 2011 and 2012 (See 2011 SOM, Table G-44)

	Marginal Loss Costs by Control Zone (Millions)									
	2011 (Jan-Mar)					2012 (Jan-Mar)				
	Jan	Feb	Mar	Inadvertent Charge	Grand Total	Jan	Feb	Mar	Inadvertent Charge	Grand Total
AECO	\$2.9	\$2.0	\$1.8	\$0.0	\$6.7	\$0.9	\$0.7	\$0.7	\$0.0	\$2.2
AEP	\$42.3	\$25.8	\$24.0	\$0.0	\$92.1	\$22.0	\$17.4	\$11.8	\$0.0	\$51.1
AP	\$14.3	\$8.4	\$7.7	\$0.0	\$30.4	\$5.4	\$5.4	\$4.0	\$0.0	\$14.8
ATSI	NA	NA	NA	\$0.0	\$0.0	\$5.8	\$5.9	\$5.1	\$0.0	\$16.7
BGE	\$6.5	\$5.0	\$3.9	\$0.0	\$15.4	\$4.2	\$4.1	\$3.2	\$0.0	\$11.5
ComEd	\$32.3	\$21.9	\$23.1	\$0.0	\$77.3	\$17.9	\$13.8	\$11.5	\$0.0	\$43.2
DAY	\$5.2	\$5.0	\$4.5	\$0.0	\$14.7	\$3.4	\$2.4	\$2.6	\$0.0	\$8.3
DEOK	NA	NA	NA	\$0.0	\$0.0	\$0.0	\$0.6	(\$0.9)	\$0.0	(\$0.3)
DLCO	\$2.2	\$1.6	\$0.7	\$0.0	\$4.4	\$1.0	\$1.2	\$1.1	\$0.0	\$3.3
Dominion	\$19.8	\$11.6	\$9.7	\$0.0	\$41.1	\$8.0	\$6.7	\$5.7	\$0.0	\$20.5
DPL	\$7.7	\$5.3	\$3.6	\$0.0	\$16.6	\$3.5	\$2.9	\$2.1	\$0.0	\$8.5
External	\$6.4	\$4.1	\$0.0	\$0.0	\$10.6	(\$0.5)	(\$1.6)	(\$0.4)	\$0.0	(\$2.5)
JCPL	\$6.2	\$4.1	\$3.1	\$0.0	\$13.5	\$1.9	\$1.4	\$1.1	\$0.0	\$4.4
Met-Ed	\$2.1	\$1.4	\$1.4	\$0.0	\$4.8	\$1.3	\$1.2	\$1.0	\$0.0	\$3.5
PECO	\$6.6	\$3.5	\$3.5	\$0.0	\$13.6	\$3.5	\$2.7	\$2.2	\$0.0	\$8.4
PENELEC	\$8.9	\$5.3	\$3.6	\$0.0	\$17.8	\$4.8	\$2.6	\$3.3	\$0.0	\$10.8
Pepco	\$5.9	\$3.7	\$3.9	\$0.0	\$13.5	\$4.0	\$4.1	\$2.9	\$0.0	\$11.0
PPL	\$8.6	\$4.7	\$3.0	\$0.0	\$16.2	\$3.8	\$2.4	\$2.3	\$0.0	\$8.5
PSEG	\$7.3	\$6.1	\$6.3	\$0.0	\$19.7	\$4.1	\$3.3	\$2.6	\$0.0	\$10.0
RECO	\$0.5	\$0.3	\$0.3	\$0.0	\$1.1	\$0.2	\$0.1	\$0.1	\$0.0	\$0.4
Total	\$185.7	\$119.9	\$104.0	\$0.0	\$409.6	\$95.2	\$77.2	\$61.9	\$0.0	\$234.4

## Section 10 – Congestion

### Details of Regional and Zonal Congestion

#### Mid-Atlantic Region Congestion-Event Summaries

#### AECO Control Zone

Table A-19 AECO Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-8)

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	Graceton - Raphael Road	Line	BGE	(\$3.1)	(\$0.8)	(\$0.0)	(\$2.4)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$2.4)	2,784	814	
2	East	Interface	500	\$0.9	\$0.4	\$0.0	\$0.6	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.7	320	10	
3	West	Interface	500	\$0.9	\$0.4	\$0.0	\$0.6	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.6	482	4	
4	5004/5005 Interface	Interface	500	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	(\$0.1)	(\$0.0)	\$0.2	\$0.4	262	128	
5	Central	Interface	500	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	340	4	
6	AP South	Interface	500	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	1,762	146	
7	Northwest	Other	BGE	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.2)	140	392	
8	Shieldalloy - Vineland	Line	AECO	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	390	0	
9	Absecon - Lewis	Line	AECO	\$0.2	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	38	0	
10	Dickerson - Pleasant View	Line	Pepco	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	244	46	
11	Crete - St Johns Tap	Flowgate	MISO	\$0.2	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	2,378	310	
12	Sherman Avenue	Transformer	AECO	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	288	80	
13	Graceton - Safe Harbor	Line	BGE	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	52	80	
14	Wolfcreek	Transformer	AEP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	2,374	18	
15	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	774	220	
17	Monroe - Shieldalloy	Line	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	94	0	
68	Pinehill - Stratford	Line	AECO	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	576	0	
92	Atco - Berlin	Line	AECO	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	316	0	
111	Mickleton - Thorofare	Line	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	16	
130	Carlls Corner - Sherman Ave	Line	AECO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	12	0	

Table A-20 AECO Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-9)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total			
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		Day Ahead	Real Time	
1	5004/5005 Interface	Interface	500	\$5.6	\$2.6	\$0.0	\$3.0	\$0.1	(\$0.4)	(\$0.0)	\$0.6	\$3.6	1,026	482	
2	Wylie Ridge	Transformer	AP	\$2.2	\$0.9	\$0.0	\$1.3	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$1.5	2,470	658	
3	West	Interface	500	\$1.2	\$0.5	\$0.0	\$0.7	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.8	462	24	
4	Crete - St Johns Tap	Flowgate	MISO	\$0.9	\$0.3	\$0.0	\$0.6	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.7	2,988	788	
5	Shieldalloy - Vineland	Line	AECO	\$0.9	\$0.1	\$0.1	\$0.9	(\$0.8)	\$0.5	(\$0.2)	(\$1.5)	(\$0.6)	252	90	
6	East	Interface	500	\$1.1	\$0.5	\$0.0	\$0.6	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.6	254	44	
7	AP South	Interface	500	\$0.7	\$0.3	\$0.0	\$0.4	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.4	2,344	1,026	
8	South Mahwah - Waldwick	Line	PSEG	\$0.3	\$0.1	\$0.1	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.3	3,412	406	
9	Bridgewater - Middlesex	Line	PSEG	\$0.4	\$0.1	\$0.0	\$0.3	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.3	754	38	
10	Cedar Grove - Roseland	Line	PSEG	(\$0.3)	(\$0.1)	(\$0.0)	(\$0.2)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.2)	1,426	52	
11	Bedington - Black Oak	Interface	500	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	1,146	0	
12	Wolfcreek	Transformer	AEP	\$0.2	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	1,432	188	
13	Plymouth Meeting - Whitpain	Line	PECO	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	172	130	
14	Churchtown	Transformer	AECO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$0.1)	0	50	
15	Central	Interface	500	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	90	0	
25	England - Merion	Line	AECO	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	14	0	
26	Carlls Corner - Sherman Ave	Line	AECO	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.1	(\$0.0)	(\$0.1)	(\$0.1)	142	36	
30	Carnegie - Tidd	Line	AECO	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	756	0	
40	Sherman Avenue	Transformer	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	30	0	
67	Corson	Transformer	AECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	0	8	

## BGE Control Zone

Table A-21 BGE Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-10)

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	Graceton - Raphael Road	Line	BGE	\$22.2	\$13.9	\$1.3	\$9.5	\$0.1	\$0.4	(\$0.7)	(\$0.9)	\$8.6	2,784	814
2	AP South	Interface	500	\$6.2	\$4.8	\$0.3	\$1.8	\$0.3	(\$0.1)	(\$0.2)	\$0.1	\$1.8	1,762	146
3	West	Interface	500	\$3.3	\$2.2	\$0.1	\$1.2	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$1.2	482	4
4	Northwest	Other	BGE	\$1.6	\$0.7	\$0.1	\$1.0	(\$0.9)	\$0.6	(\$0.5)	(\$2.0)	(\$1.0)	140	392
5	Graceton - Safe Harbor	Line	BGE	\$0.3	\$0.2	\$0.0	\$0.2	(\$0.4)	(\$0.0)	(\$0.3)	(\$0.6)	(\$0.5)	52	80
6	Dickerson - Pleasant View	Line	Pepco	\$0.8	\$0.4	\$0.0	\$0.4	\$0.1	(\$0.0)	(\$0.2)	\$0.0	\$0.4	244	46
7	East	Interface	500	(\$1.2)	(\$0.9)	(\$0.1)	(\$0.4)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.4)	320	10
8	5004/5005 Interface	Interface	500	\$0.6	\$0.4	\$0.0	\$0.3	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.4	262	128
9	Crete - St Johns Tap	Flowgate	MISO	\$0.8	\$0.6	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	2,378	310
10	Wolfcreek	Transformer	AEP	\$0.3	\$0.2	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.1	2,374	18
11	Central	Interface	500	(\$0.4)	(\$0.3)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	\$0.0	(\$0.1)	340	4
12	Clover	Transformer	Dominion	\$0.2	\$0.2	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.1	814	34
13	Mardela - Vienna	Line	DPL	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	272	210
14	AEP-DOM	Interface	500	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	132	62
15	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.2	\$0.2	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	774	220
29	Chestnut Hill - Frederick Road	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	14
61	Deerpark - Northwest	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	8	0
109	Riverside	Transformer	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	18	0
170	Conastone - Otter	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	2	8
296	Columbia - Northwest	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1	0

Table A-22 BGE Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-11)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	AP South	Interface	500	\$30.4	\$28.5	\$0.4	\$2.3	\$1.0	(\$0.5)	(\$0.5)	\$1.1	\$3.4	2,344	1,026		
2	5004/5005 Interface	Interface	500	\$9.3	\$7.4	\$0.2	\$2.0	\$0.2	(\$0.1)	(\$0.1)	\$0.2	\$2.3	1,026	482		
3	Wylie Ridge	Transformer	AP	\$9.4	\$8.1	\$0.2	\$1.5	\$0.3	(\$0.1)	(\$0.1)	\$0.2	\$1.8	2,470	658		
4	West	Interface	500	\$5.0	\$3.5	\$0.0	\$1.5	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$1.6	462	24		
5	Bedington - Black Oak	Interface	500	\$8.6	\$7.5	\$0.1	\$1.2	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	1,146	0		
6	Crete - St Johns Tap	Flowgate	MISO	\$4.6	\$3.9	\$0.1	\$0.9	\$0.1	(\$0.0)	(\$0.1)	\$0.0	\$0.9	2,988	788		
7	Susquehanna	Transformer	PPL	(\$1.6)	(\$1.2)	(\$0.0)	(\$0.4)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	240	0		
8	Doubs	Transformer	AP	\$0.8	\$0.6	\$0.0	\$0.2	\$0.1	(\$0.0)	(\$0.1)	\$0.1	\$0.3	76	102		
9	Burches Hill	Transformer	Pepco	\$0.1	\$0.0	\$0.0	\$0.0	\$0.2	(\$0.1)	(\$0.0)	\$0.3	\$0.3	16	88		
10	Wolfcreek	Transformer	AEP	\$0.9	\$0.6	\$0.0	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.3	1,432	188		
11	Bristers - Ox	Line	Dominion	\$0.8	\$0.6	\$0.0	\$0.2	\$0.0	(\$0.1)	(\$0.0)	\$0.1	\$0.3	66	50		
12	Cloverdale - Lexington	Line	500	\$0.9	\$0.8	\$0.0	\$0.1	\$0.2	(\$0.0)	(\$0.1)	\$0.2	\$0.2	344	310		
13	Cedar Grove - Roseland	Line	PSEG	(\$0.8)	(\$0.6)	(\$0.0)	(\$0.2)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.2)	1,426	52		
14	East	Interface	500	(\$1.7)	(\$1.6)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$0.2)	254	44		
15	Graceton - Raphael Road	Line	BGE	\$0.4	\$0.3	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	20	22		
33	Riverside	Other	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	0	4		
43	Greene St - Westport	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	4		
54	Conastone - Otter	Line	BGE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	24		
61	Green Street - Westport	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	12	0		
107	Brandon Shores - Riverside	Line	BGE	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	42	0		

## DPL Control Zone

Table A-23 DPL Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-12)

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	Graceton - Raphael Road	Line	BGE	(\$6.2)	(\$2.4)	(\$0.5)	(\$4.2)	(\$0.1)	(\$0.2)	\$0.3	\$0.4	(\$3.8)	2,784	814
2	Mardela - Vienna	Line	DPL	\$3.5	\$1.3	\$0.3	\$2.6	(\$3.5)	(\$0.4)	(\$1.4)	(\$4.6)	(\$2.0)	272	210
3	West	Interface	500	\$1.8	\$0.6	\$0.1	\$1.3	\$0.0	\$0.0	(\$0.0)	\$0.0	\$1.3	482	4
4	East	Interface	500	\$1.9	\$0.6	\$0.0	\$1.3	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$1.2	320	10
5	Church - Townsend	Line	DPL	\$1.8	\$0.2	\$0.2	\$1.7	(\$0.2)	\$0.3	(\$0.3)	(\$0.8)	\$1.0	466	56
6	North Salisbury - Rockawalkin	Line	DPL	\$0.7	\$0.3	\$0.0	\$0.5	(\$0.4)	\$0.3	(\$0.3)	(\$1.0)	(\$0.5)	124	32
7	AP South	Interface	500	\$0.7	\$0.2	\$0.1	\$0.5	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$0.4	1,762	146
8	Edgewood - Nelson	Line	DPL	\$0.7	\$0.3	\$0.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	94	0
9	Central	Interface	500	\$0.5	\$0.2	\$0.0	\$0.4	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.4	340	4
10	Short - Laurel	Line	AECO	\$0.5	\$0.2	\$0.1	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	108	0
11	5004/5005 Interface	Interface	500	\$0.7	\$0.2	\$0.0	\$0.5	\$0.1	\$0.2	(\$0.0)	(\$0.2)	\$0.4	262	128
12	Hebron - Mardela	Line	DPL	\$0.4	\$0.2	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	86	0
13	New Church - Piney Grove	Line	DPL	\$0.2	\$0.0	\$0.1	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	774	0
14	Longwood - Wye Mills	Line	DPL	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	562	0
15	Crete - St Johns Tap	Flowgate	MISO	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	2,378	310
16	Talbot - Trappe	Line	DPL	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	472	0
18	Laurel - Sharptown	Line	DPL	\$0.2	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	112	0
20	Edgewood - N.Salisbury	Line	DPL	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	12	0
22	Short - Laurel	Line	DPL	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	(\$0.1)	0	10
23	North Salisbury - Pemberton	Line	DPL	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	58	0

Table A-24 DPL Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-13)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		Day Ahead	Real Time		
1	5004/5005 Interface	Interface	500	\$11.1	\$3.6	\$0.1	\$7.6	\$0.2	(\$0.0)	(\$0.1)	\$0.1	\$7.8	1,026	482		
2	Wylie Ridge	Transformer	AP	\$4.5	\$1.3	\$0.1	\$3.3	\$0.1	\$0.0	(\$0.0)	\$0.0	\$3.3	2,470	658		
3	West	Interface	500	\$2.5	\$0.9	\$0.0	\$1.6	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$1.6	462	24		
4	East	Interface	500	\$2.3	\$0.8	\$0.0	\$1.6	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$1.5	254	44		
5	AP South	Interface	500	\$2.1	\$0.6	\$0.1	\$1.5	\$0.1	\$0.0	(\$0.1)	(\$0.0)	\$1.5	2,344	1,026		
6	Crete - St Johns Tap	Flowgate	MISO	\$1.8	\$0.4	\$0.0	\$1.4	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$1.4	2,988	788		
7	Bedington - Black Oak	Interface	500	\$0.8	\$0.2	\$0.0	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	1,146	0		
8	Plymouth Meeting - Whitpain	Line	PECO	\$0.7	\$0.2	\$0.0	\$0.5	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.5	172	130		
9	Susquehanna	Transformer	PPL	(\$0.6)	(\$0.2)	(\$0.0)	(\$0.4)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	240	0		
10	Longwood - Wye Mills	Line	DPL	\$0.5	\$0.1	\$0.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	368	0		
11	Bradford - Planebrook	Line	PECO	(\$0.5)	(\$0.2)	(\$0.0)	(\$0.3)	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.3)	90	34		
12	Central	Interface	500	\$0.5	\$0.1	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	90	0		
13	South Mahwah - Waldwick	Line	PSEG	\$0.5	\$0.1	\$0.1	\$0.4	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$0.3	3,412	406		
14	Butler - Karns City	Line	AP	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.3	738	88		
15	Cedar Grove - Roseland	Line	PSEG	(\$0.5)	(\$0.1)	(\$0.1)	(\$0.4)	(\$0.0)	(\$0.0)	\$0.1	\$0.1	(\$0.3)	1,426	52		
24	Kenney - Mount Olive	Line	DPL	\$0.2	\$0.1	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	66	4		
31	Bellehaven - Tasley	Line	DPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	302	0		
33	Easton	Transformer	DPL	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	48	4		
36	Lumspond - Reybold	Line	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	12	0		
44	Hallwood - Oak Hall	Line	DPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	78	0		

## JCPL Control Zone

Table A-25 JCPL Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-14)

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	Graceton - Raphael Road	Line	BGE	(\$6.6)	(\$4.1)	(\$0.2)	(\$2.7)	\$0.1	\$0.1	\$0.2	\$0.2	(\$2.5)	2,784	814
2	West	Interface	500	\$2.0	\$0.9	\$0.0	\$1.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$1.1	482	4
3	East	Interface	500	\$1.7	\$0.7	\$0.0	\$1.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$1.0	320	10
4	5004/5005 Interface	Interface	500	\$1.0	\$0.5	\$0.0	\$0.5	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.4	262	128
5	Central	Interface	500	\$0.6	\$0.3	\$0.0	\$0.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.3	340	4
6	Lake Nelson - Middlesex	Line	PSEG	\$0.5	\$0.3	\$0.1	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	1,242	0
7	Crete - St Johns Tap	Flowgate	MISO	\$0.3	\$0.2	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.2	2,378	310
8	AP South	Interface	500	\$0.3	\$0.2	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	1,762	146
9	Bridgewater - Middlesex	Line	PSEG	\$0.3	\$0.2	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	474	2
10	Redoak - Sayreville	Line	JCPL	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	696	0
11	Cedar Grove - Roseland	Line	PSEG	(\$0.3)	(\$0.1)	(\$0.0)	(\$0.2)	\$0.0	\$0.0	\$0.1	\$0.1	(\$0.1)	608	60
12	Farragut - Hudson	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	734	0
13	Dickerson - Pleasant View	Line	Pepco	\$0.3	\$0.1	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	244	46
14	Branchburg - Readington	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	258	2
15	Cedar Grove - Clifton	Line	PSEG	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	254	0
17	Atlantic - Larrabee	Line	JCPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	192	0
42	Franklin - West Wharton	Line	JCPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	212	0
133	Kilmer - Sayreville	Line	JCPL	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	6	0
220	Stony Brook - Whippany	Line	JCPL	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	16	0
269	Deep Run - Sayreville	Line	JCPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	8	0

Table A-26 JCPL Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-15)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total			
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total				
1	5004/5005 Interface	Interface	500	\$14.9	\$6.2	\$0.0	\$8.7	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$8.6	1,026	482	
2	Wylie Ridge	Transformer	AP	\$5.1	\$2.1	\$0.0	\$3.0	\$0.0	\$0.1	(\$0.0)	(\$0.1)	\$2.9	2,470	658	
3	Cedar Grove - Roseland	Line	PSEG	(\$2.9)	(\$1.1)	(\$0.1)	(\$1.9)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$1.9)	1,426	52	
4	Bridgewater - Middlesex	Line	PSEG	\$3.3	\$1.4	\$0.0	\$1.9	(\$0.1)	\$0.1	(\$0.0)	(\$0.2)	\$1.8	754	38	
5	South Mahwah - Waldwick	Line	PSEG	\$2.5	\$0.9	\$0.1	\$1.7	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	\$1.6	3,412	406	
6	West	Interface	500	\$2.9	\$1.5	\$0.0	\$1.4	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$1.3	462	24	
7	Crete - St Johns Tap	Flowgate	MISO	\$2.1	\$0.9	\$0.0	\$1.2	\$0.0	\$0.0	(\$0.0)	\$0.0	\$1.2	2,988	788	
8	East	Interface	500	\$2.2	\$1.0	\$0.0	\$1.2	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$1.1	254	44	
9	Susquehanna	Transformer	PPL	\$1.2	\$0.4	\$0.0	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	240	0	
10	Atlantic - Larrabee	Line	JCPL	\$0.4	(\$0.2)	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	98	0	
11	Montville - Roseland	Line	PSEG	(\$0.4)	(\$0.0)	(\$0.0)	(\$0.3)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.3)	88	0	
12	Roseland - West Caldwell	Line	PSEG	(\$0.5)	(\$0.2)	(\$0.0)	(\$0.3)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.3)	142	20	
13	Central	Interface	500	\$0.5	\$0.2	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	90	0	
14	Butler - Karns City Plymouth Meeting -	Line	AP	\$0.5	\$0.2	(\$0.0)	\$0.3	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.3	738	88	
15	Whitpain	Line	PECO	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.2)	172	130	
19	Kilmer - Sayreville	Line	JCPL	\$0.3	\$0.2	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	184	0	
46	Redoak - Sayreville	Line	JCPL	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	38	0	
59	Kittatiny - Newton	Line	JCPL	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	14	0	

## Met-Ed Control Zone

Table A-27 Met-Ed Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-16)

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	Graceton - Raphael Road	Line	BGE	(\$6.2)	(\$8.0)	(\$0.2)	\$1.7	\$0.1	\$0.1	\$0.1	\$0.1	\$1.8	2,784	814
2	Northwest	Other	BGE	(\$0.4)	(\$0.6)	(\$0.0)	\$0.2	\$0.1	(\$0.2)	\$0.1	\$0.3	\$0.5	140	392
3	Carlisle Pike - Gardners	Line	PENELEC	\$0.4	\$0.1	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	280	0
4	West	Interface	500	\$1.6	\$2.0	\$0.0	(\$0.3)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.3)	482	4
5	Graceton - Safe Harbor	Line	BGE	(\$0.2)	(\$0.2)	(\$0.0)	\$0.0	\$0.1	(\$0.2)	\$0.0	\$0.3	\$0.3	52	80
6	5004/5005 Interface	Interface	500	\$0.8	\$0.8	\$0.0	(\$0.0)	\$0.1	(\$0.1)	(\$0.0)	\$0.2	\$0.2	262	128
7	Gardners - Texas East	Line	Met-Ed	\$0.1	(\$0.1)	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.2	400	8
8	Crete - St Johns Tap	Flowgate	MISO	\$0.3	\$0.4	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	2,378	310
9	Lewistown	Transformer	PENELEC	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	(\$0.1)	34	8
10	East	Interface	500	\$0.2	\$0.1	(\$0.1)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	320	10
11	Dickerson - Pleasant View	Line	Pepco	\$0.2	\$0.3	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	244	46
12	AP South	Interface	500	\$0.5	\$0.7	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	1,762	146
13	Central	Interface	500	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	340	4
14	Glendon - Hosensack	Line	Met-Ed	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	48	0
15	Cly - Collins	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	34	0
19	Middletown Jct - Yorkhaven	Line	Met-Ed	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	52	0
46	Ironwood - South Lebanon	Line	Met-Ed	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	10	0
51	Englishtown	Transformer	Met-Ed	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	366	0
156	Cly - ES3 Conewago	Line	Met-Ed	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	8	0
164	Deep Run - Englishtown	Line	Met-Ed	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	14	0

Table A-28 Met-Ed Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-17)

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	Wylie Ridge	Transformer	AP	\$3.5	\$4.9	\$0.0	(\$1.3)	\$0.1	(\$0.0)	(\$0.0)	\$0.1	(\$1.2)	2,470	658
2	West	Interface	500	\$1.9	\$2.5	\$0.0	(\$0.6)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.6)	462	24
3	Crete - St Johns Tap	Flowgate	MISO	\$1.4	\$1.9	\$0.0	(\$0.5)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.5)	2,988	788
4	Susquehanna	Transformer	PPL	\$0.3	(\$0.0)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	240	0
5	East	Interface	500	\$0.1	(\$0.2)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	254	44
6	5004/5005 Interface	Interface	500	\$8.7	\$9.1	(\$0.0)	(\$0.4)	\$0.2	(\$0.3)	\$0.0	\$0.6	\$0.1	1,026	482
7	Cedar Grove - Roseland	Line	PSEG	(\$0.7)	(\$0.9)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	1,426	52
8	AP South	Interface	500	\$1.4	\$1.3	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	2,344	1,026
9	Susquehanna	Transformer	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.1	0	104
10	Wolfcreek	Transformer	AEP	\$0.3	\$0.4	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	1,432	188
11	Hunterstown	Transformer	Met-Ed	\$0.1	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	18	10
12	Branchburg - Readington	Line	PSEG	(\$0.1)	(\$0.2)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	282	52
13	Montville - Roseland	Line	PSEG	(\$0.1)	(\$0.2)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	88	0
14	Burches Hill	Transformer	Pepco	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	16	88
15	Carnegie - Tidd	Line	AEP	\$0.1	\$0.2	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	646	398
64	Glendon - Hosensack	Line	Met-Ed	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	2	0
74	Hosensack - N.Temple	Line	Met-Ed	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	4	0

## PECO Control Zone

Table A-29 PECO Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-18)

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	Graceton - Raphael Road	Line	BGE	(\$16.6)	(\$23.5)	(\$0.2)	\$6.7	\$0.1	\$0.1	\$0.1	\$0.1	\$6.9	2,784	814
2	West	Interface	500	\$4.5	\$6.3	\$0.0	(\$1.7)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$1.7)	482	4
3	AP South	Interface	500	\$1.5	\$2.4	\$0.0	(\$0.9)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.9)	1,762	146
4	5004/5005 Interface	Interface	500	\$1.8	\$2.6	\$0.0	(\$0.8)	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	(\$0.9)	262	128
5	East	Interface	500	\$3.9	\$3.1	\$0.0	\$0.9	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$0.8	320	10
6	Central	Interface	500	\$1.3	\$2.0	\$0.0	(\$0.7)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.7)	340	4
7	Emilie	Transformer	PECO	(\$0.3)	(\$0.9)	(\$0.0)	\$0.6	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.6	358	10
8	Northwest	Other	BGE	(\$0.9)	(\$1.3)	(\$0.0)	\$0.4	\$0.1	\$0.0	\$0.0	\$0.2	\$0.6	140	392
9	Crete - St Johns Tap	Flowgate	MISO	\$0.8	\$1.1	\$0.0	(\$0.3)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.3)	2,378	310
10	Dickerson - Pleasant View	Line	Pepco	\$0.6	\$0.9	\$0.0	(\$0.3)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	(\$0.3)	244	46
11	Graceton - Safe Harbor	Line	BGE	(\$0.2)	(\$0.3)	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.1	52	80
12	Wolfcreek	Transformer	AEP	\$0.2	\$0.3	\$0.0	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	2,374	18
13	Cedar Grove - Roseland	Line	PSEG	(\$0.1)	(\$0.2)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.1	608	60
14	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.2	\$0.3	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	774	220
15	Clover	Transformer	Dominion	\$0.1	\$0.2	\$0.0	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	814	34
24	Cromby	Transformer	PECO	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	24	0
28	Blue Grass - Byberry	Line	PECO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	162	16
38	Burlington - Croydon	Line	PECO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	528	0
47	Emilie - Falls	Line	PECO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1,684	0
53	Passyunk - Schuylkill	Line	PECO	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	2	0

Table A-30 PECO Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-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	\$29.1	\$31.0	\$0.1	(\$1.7)	(\$0.6)	\$0.4	(\$0.1)	(\$1.0)	(\$2.7)	1,026	482		
2	Plymouth Meeting - Whitpain	Line	PECO	\$3.2	\$0.8	\$0.0	\$2.5	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	\$2.4	172	130		
3	West	Interface	500	\$6.2	\$8.3	\$0.0	(\$2.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$2.0)	462	24		
4	AP South	Interface	500	\$3.5	\$5.5	\$0.1	(\$1.9)	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.1)	(\$2.0)	2,344	1,026		
5	Wylie Ridge	Transformer	AP	\$11.1	\$12.9	\$0.1	(\$1.8)	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.2)	(\$2.0)	2,470	658		
6	East	Interface	500	\$5.1	\$3.2	\$0.0	\$1.9	(\$0.1)	\$0.1	(\$0.0)	(\$0.2)	\$1.8	254	44		
7	Bradford - Planebrook	Line	PECO	\$1.1	(\$0.4)	\$0.0	\$1.6	\$0.1	\$0.2	\$0.0	(\$0.1)	\$1.5	90	34		
8	Limerick	Transformer	PECO	\$2.1	\$0.7	(\$0.0)	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	60	0		
9	Crete - St Johns Tap	Flowgate	MISO	\$4.3	\$5.4	\$0.0	(\$1.0)	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	(\$1.1)	2,988	788		
10	Susquehanna	Transformer	PPL	(\$1.1)	(\$1.9)	\$0.0	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	240	0		
11	Bedington - Black Oak	Interface	500	\$1.6	\$2.2	\$0.0	(\$0.6)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.6)	1,146	0		
12	Wolfcreek	Transformer	AEP	\$0.9	\$1.3	\$0.0	(\$0.3)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.4)	1,432	188		
13	Bristers - Ox	Line	Dominion	\$0.5	\$0.7	\$0.0	(\$0.2)	(\$0.1)	\$0.1	(\$0.0)	(\$0.1)	(\$0.3)	66	50		
14	Cedar Grove - Roseland	Line	PSEG	(\$1.4)	(\$1.7)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	1,426	52		
15	Eddystone - Saville	Line	PECO	\$0.3	(\$0.0)	\$0.0	\$0.3	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.3	128	32		
27	North Philadelphia - Waneeta	Line	PECO	\$0.0	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	390	6		
29	Chichester	Transformer	PECO	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	0	0		
30	Morton - Rid	Line	PECO	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	8	0		
39	Eddystone - Scott Paper	Line	PECO	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	12	0		
40	Flint - Plymouth Meeting	Line	PECO	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	2	4		

## PENELEC Control Zone

Table A-31 PENELEC Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-20)

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	(\$1.3)	(\$3.4)	(\$0.1)	\$2.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$2.0	482	4
2	Graceton - Raphael Road	Line	BGE	(\$6.0)	(\$7.6)	(\$0.2)	\$1.5	\$0.3	\$0.0	\$0.1	\$0.4	\$1.8	2,784	814
3	AP South	Interface	500	(\$3.6)	(\$4.6)	(\$0.1)	\$1.0	\$0.3	(\$0.3)	\$0.1	\$0.7	\$1.7	1,762	146
4	5004/5005 Interface	Interface	500	(\$0.7)	(\$1.9)	(\$0.1)	\$1.1	\$0.3	\$0.3	\$0.2	\$0.1	\$1.3	262	128
5	East	Interface	500	(\$0.6)	(\$1.1)	(\$0.1)	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	320	10
6	Northwest	Other	BGE	(\$0.3)	(\$0.3)	\$0.0	\$0.0	\$0.2	(\$0.2)	\$0.0	\$0.4	\$0.4	140	392
7	Central	Interface	500	(\$0.1)	(\$0.4)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.3	340	4
8	East Sayre - East Towanda	Line	PENELEC	\$0.3	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	650	0
9	Crete - St Johns Tap	Flowgate	MISO	\$0.8	\$1.0	\$0.0	(\$0.2)	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	(\$0.3)	2,378	310
10	Seward - Towanda	Line	PENELEC	\$0.7	\$0.4	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	44	0
11	Dickerson - Pleasant View	Line	Pepco	\$0.2	\$0.3	\$0.0	(\$0.1)	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	(\$0.2)	244	46
12	Brunot Island - Montour	Line	DLCO	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	542	292
13	Hooversville	Transformer	PENELEC	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	28	0
14	Graceton - Safe Harbor	Line	BGE	(\$0.1)	(\$0.1)	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.1	\$0.1	52	80
15	Seward	Transformer	PENELEC	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	34	0
19	East Towanda - S.Troy	Line	PENELEC	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	1,558	0
20	Edgewood - Shelocta	Line	PENELEC	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.1	68	20
22	Farmers Valley - Lewis Run	Line	PENELEC	\$0.0	(\$0.0)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.0	88	36
24	Garrett - Garrett Tap	Line	PENELEC	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	104	0
26	Lewistown	Transformer	PENELEC	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	34	8

Table A-32 PENELEC Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-21)

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	5004/5005 Interface	Interface	500	(\$12.4)	(\$33.0)	(\$1.5)	\$19.1	\$1.1	\$1.7	\$1.2	\$0.7	\$19.9	1,026	482
2	AP South	Interface	500	(\$21.5)	(\$30.8)	(\$0.3)	\$9.0	\$1.8	\$0.7	\$0.6	\$1.6	\$10.6	2,344	1,026
3	Wylie Ridge	Transformer	AP	\$6.5	\$16.1	\$0.7	(\$9.0)	(\$0.4)	(\$0.4)	(\$0.4)	(\$0.4)	(\$9.4)	2,470	658
4	West	Interface	500	(\$1.8)	(\$4.6)	(\$0.2)	\$2.6	\$0.0	\$0.1	\$0.1	\$0.0	\$2.6	462	24
5	Bedington - Black Oak	Interface	500	(\$4.9)	(\$7.2)	(\$0.1)	\$2.2	\$0.0	\$0.0	\$0.0	\$0.0	\$2.2	1,146	0
6	Crete - St Johns Tap	Flowgate	MISO	\$4.0	\$5.9	\$0.1	(\$1.8)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	(\$1.8)	2,988	788
7	Butler - Karns City	Line	AP	\$5.5	\$3.9	\$0.3	\$2.0	(\$0.2)	\$0.0	(\$0.1)	(\$0.3)	\$1.7	738	88
8	Susquehanna	Transformer	PPL	\$0.5	(\$1.3)	(\$0.1)	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	240	0
9	East	Interface	500	(\$0.9)	(\$1.6)	(\$0.1)	\$0.6	\$0.0	\$0.1	\$0.1	\$0.0	\$0.7	254	44
10	AEP-DOM	Interface	500	(\$1.2)	(\$1.7)	\$0.0	\$0.5	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.5	586	176
11	Carnegie - Tidd	Line	AEP	\$0.3	\$0.6	\$0.0	(\$0.3)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.4)	646	398
12	Cedar Grove - Roseland	Line	PSEG	\$0.5	\$0.1	(\$0.3)	\$0.1	(\$0.0)	(\$0.0)	\$0.3	\$0.3	\$0.3	1,426	52
13	Tiltonville - Windsor	Line	AP	\$0.5	\$0.8	\$0.1	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.3)	416	90
14	South Mahwah - Waldwick	Line	PSEG	(\$2.5)	(\$2.3)	\$0.4	\$0.2	\$0.2	\$0.1	(\$0.6)	(\$0.5)	(\$0.3)	3,412	406
15	Central	Interface	500	(\$0.1)	(\$0.4)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	90	0
18	Erie West	Transformer	PENELEC	\$0.4	(\$0.0)	\$0.0	\$0.5	(\$0.2)	\$0.2	(\$0.2)	(\$0.7)	(\$0.2)	574	60
19	Elko - Forest	Line	PENELEC	\$0.1	(\$0.0)	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	100	0
24	Garret Tap - Garrett	Line	PENELEC	\$0.5	\$0.3	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	40	0
26	Keystone - Shelocta	Line	PENELEC	(\$0.3)	(\$0.2)	(\$0.0)	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	24	8
49	Farmers Valley - Lewis Run	Line	PENELEC	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	0	10

## Pepco Control Zone

Table A-33 Pepco Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-22)

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	Graceton - Raphael Road	Line	BGE	\$17.0	\$10.0	\$0.7	\$7.7	(\$0.3)	\$0.5	(\$0.4)	(\$1.2)	\$6.5	2,784	814
2	AP South	Interface	500	\$8.6	\$5.4	\$0.2	\$3.5	(\$0.2)	\$0.2	(\$0.2)	(\$0.6)	\$2.9	1,762	146
3	Potomac River	Transformer	Pepco	\$2.6	\$1.3	\$0.2	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	590	0
4	West	Interface	500	\$2.3	\$1.4	\$0.1	\$0.9	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.9	482	4
5	Buzzard - Ritchie	Line	Pepco	\$0.7	\$0.2	\$0.0	\$0.5	(\$0.2)	\$0.6	(\$0.2)	(\$1.0)	(\$0.5)	120	56
6	East	Interface	500	(\$1.3)	(\$0.9)	(\$0.0)	(\$0.5)	\$0.0	(\$0.0)	\$0.0	\$0.1	(\$0.4)	320	10
7	Crete - St Johns Tap	Flowgate	MISO	\$0.9	\$0.5	\$0.0	\$0.4	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.4	2,378	310
8	Dickerson - Pleasant View	Line	Pepco	\$1.2	\$0.6	\$0.0	\$0.6	(\$0.1)	\$0.1	(\$0.1)	(\$0.3)	\$0.3	244	46
9	Buzzard Point	Transformer	Pepco	\$0.3	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	60	0
10	Central	Interface	500	(\$0.5)	(\$0.3)	(\$0.0)	(\$0.2)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.2)	340	4
11	Wolfcreek	Transformer	AEP	\$0.4	\$0.2	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.2	2,374	18
12	Graceton - Safe Harbor	Line	BGE	\$0.3	\$0.2	\$0.0	\$0.2	(\$0.1)	\$0.1	(\$0.2)	(\$0.3)	(\$0.2)	52	80
13	5004/5005 Interface	Interface	500	\$0.4	\$0.3	(\$0.0)	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	262	128
14	Clover	Transformer	Dominion	\$0.3	\$0.2	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	814	34
15	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.2	\$0.1	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	774	220
17	Potomac River	Line	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	0	132
18	Burches Hill - Palmers Corner	Line	Pepco	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	14	0
19	Oak Grove - Ritchie	Line	Pepco	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	142	0
33	Chalk Point	Transformer	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	14	0
43	Benning - Ritchie	Line	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	90	0

Table A-34 Pepco Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-23)

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	AP South	Interface	500	\$40.7	\$30.7	\$0.6	\$10.6	(\$1.1)	(\$1.1)	(\$0.6)	(\$0.6)	\$10.0	2,344	1,026
2	Bedington - Black Oak	Interface	500	\$10.9	\$8.0	\$0.2	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3.0	1,146	0
3	Wylie Ridge	Transformer	AP	\$9.1	\$6.8	\$0.2	\$2.6	(\$0.2)	(\$0.2)	(\$0.1)	\$0.0	\$2.6	2,470	658
4	Crete - St Johns Tap	Flowgate	MISO	\$4.8	\$3.5	\$0.1	\$1.4	(\$0.1)	(\$0.1)	(\$0.0)	\$0.0	\$1.4	2,988	788
5	5004/5005 Interface	Interface	500	\$5.2	\$3.8	\$0.0	\$1.5	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	\$1.4	1,026	482
6	West	Interface	500	\$3.8	\$2.7	\$0.1	\$1.3	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$1.3	462	24
7	Susquehanna	Transformer	PPL	(\$2.0)	(\$1.4)	(\$0.0)	(\$0.6)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.6)	240	0
8	AEP-DOM	Interface	500	\$2.3	\$1.8	\$0.0	\$0.6	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.6	586	176
9	East	Interface	500	(\$1.8)	(\$1.4)	(\$0.0)	(\$0.4)	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.6)	254	44
10	Wolfcreek	Transformer	AEP	\$1.0	\$0.7	\$0.1	\$0.4	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	\$0.3	1,432	188
11	Cloverdale - Lexington	Line	500	\$1.1	\$0.9	\$0.0	\$0.3	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.0)	\$0.3	344	310
12	Cedar Grove - Roseland	Line	PSEG	(\$0.8)	(\$0.5)	(\$0.1)	(\$0.3)	(\$0.0)	(\$0.0)	\$0.1	\$0.1	(\$0.2)	1,426	52
13	Bristers - Ox	Line	Dominion	\$1.3	\$0.9	\$0.0	\$0.4	(\$0.4)	(\$0.3)	(\$0.1)	(\$0.2)	\$0.2	66	50
14	Limerick	Transformer	PECO	(\$0.4)	(\$0.3)	(\$0.0)	(\$0.2)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	60	0
15	Burches Hill	Transformer	Pepco	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.2)	(\$0.2)	(\$0.2)	16	88
108	Buzzard - Ritchie	Line	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	128	0
114	Dickerson - Quince Orchard	Line	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	4	8
180	Benning	Transformer	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	10	0

## PPL Control Zone

Table A-35 PPL Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-24)

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	Graceton - Raphael Road	Line	BGE	(\$15.6)	(\$18.7)	(\$0.4)	\$2.8	(\$0.2)	(\$0.0)	\$0.3	\$0.1	\$2.9	2,784	814
2	5004/5005 Interface	Interface	500	\$2.5	\$3.3	\$0.3	(\$0.5)	\$0.3	\$0.1	(\$0.6)	(\$0.4)	(\$0.9)	262	128
3	West	Interface	500	\$4.5	\$5.6	\$0.2	(\$0.9)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.9)	482	4
4	Crete - St Johns Tap	Flowgate	MISO	\$0.8	\$1.0	\$0.0	(\$0.2)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.2)	2,378	310
5	Graceton - Safe Harbor	Line	BGE	(\$0.4)	(\$0.5)	(\$0.0)	\$0.0	(\$0.2)	\$0.2	\$0.1	(\$0.2)	(\$0.2)	52	80
6	Cedar Grove - Roseland	Line	PSEG	(\$0.3)	(\$0.3)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	\$0.2	\$0.2	\$0.2	608	60
7	Central	Interface	500	\$1.0	\$1.3	\$0.1	(\$0.2)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.2)	340	4
8	AP South	Interface	500	\$0.6	\$0.5	\$0.1	\$0.2	\$0.1	\$0.0	(\$0.1)	(\$0.0)	\$0.2	1,762	146
9	Northwest	Other	BGE	(\$0.9)	(\$1.0)	(\$0.0)	\$0.1	(\$0.1)	(\$0.1)	\$0.1	\$0.1	\$0.1	140	392
10	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.2	\$0.3	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	774	220
11	Gardners - Texas East	Line	Met-Ed	(\$0.2)	(\$0.2)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	400	8
12	Wolfcreek	Transformer	AEP	\$0.2	\$0.3	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	2,374	18
13	Linden - VFT	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	1,816	0
14	Burnham - Munster	Flowgate	MISO	\$0.1	\$0.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	442	0
15	Shaffer - Springdale	Line	AP	\$0.1	\$0.2	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	410	112
17	Harwood	Transformer	PPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	0	2
69	Sunbury	Transformer	PPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	26	0
97	Berwick - Koonsville	Line	PPL	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	122	0

Table A-36 PPL Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-25)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Event Hours	
				Day Ahead				Balancing				Grand Total			
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total		Day Ahead	Real Time	
1	Susquehanna	Transformer	PPL	\$16.5	\$6.6	\$0.2	\$10.1	\$0.0	\$0.0	\$0.0	\$0.0	\$10.1	240	0	
2	5004/5005 Interface	Interface	500	\$34.7	\$43.3	\$0.8	(\$7.8)	\$1.2	(\$0.3)	(\$0.3)	\$1.2	(\$6.6)	1,026	482	
3	Wylie Ridge	Transformer	AP	\$11.3	\$13.9	\$0.3	(\$2.3)	\$0.4	(\$0.0)	(\$0.1)	\$0.4	(\$1.9)	2,470	658	
4	Susquehanna	Transformer	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	(\$1.5)	(\$0.2)	\$1.4	\$1.4	0	104	
5	AP South	Interface	500	\$0.1	(\$1.0)	\$0.2	\$1.2	\$0.1	\$0.1	\$0.0	\$0.1	\$1.3	2,344	1,026	
6	West	Interface	500	\$5.9	\$7.2	\$0.2	(\$1.1)	\$0.0	(\$0.1)	(\$0.0)	\$0.1	(\$1.0)	462	24	
7	Crete - St Johns Tap	Flowgate	MISO	\$4.5	\$5.5	\$0.0	(\$1.1)	\$0.1	\$0.0	(\$0.0)	\$0.1	(\$1.0)	2,988	788	
8	East	Interface	500	(\$0.0)	(\$0.9)	\$0.0	\$0.9	\$0.0	\$0.0	\$0.1	\$0.1	\$1.0	254	44	
9	Cedar Grove - Roseland	Line	PSEG	(\$2.5)	(\$2.9)	(\$0.1)	\$0.3	(\$0.1)	(\$0.0)	\$0.0	(\$0.1)	\$0.3	1,426	52	
10	South Mahwah - Waldwick	Line	PSEG	\$1.3	\$1.5	\$0.1	(\$0.1)	\$0.1	\$0.1	(\$0.1)	(\$0.1)	(\$0.2)	3,412	406	
11	Central	Interface	500	\$0.8	\$1.0	\$0.0	(\$0.2)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	90	0	
12	Bedington - Black Oak	Interface	500	\$0.7	\$0.6	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	1,146	0	
13	Burches Hill	Transformer	Pepco	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	(\$0.0)	(\$0.0)	\$0.2	\$0.1	16	88	
14	AEP-DOM	Interface	500	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	586	176	
15	Plymouth Meeting - Whitpain	Line	PECO	(\$0.8)	(\$1.0)	(\$0.0)	\$0.2	(\$0.1)	\$0.0	\$0.0	(\$0.1)	\$0.1	172	130	
21	Blooming Grove - Peckville	Line	PPL	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	18	0	
48	Wescosville	Transformer	PPL	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	0	2	

## PSEG Control Zone

Table A-37 PSEG Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-26)

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	Graceton - Raphael Road	Line	BGE	(\$14.4)	(\$15.9)	(\$0.8)	\$0.7	(\$0.1)	(\$0.4)	\$0.5	\$0.8	\$1.5	2,784	814
2	Farragut - Hudson	Line	PSEG	\$0.8	\$0.5	\$0.9	\$1.1	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	734	0
3	5004/5005 Interface	Interface	500	\$1.9	\$1.6	\$0.1	\$0.3	(\$0.1)	\$0.8	(\$0.2)	(\$1.1)	(\$0.7)	262	128
4	Hillsdale - New Milford	Line	PSEG	\$0.3	\$0.2	\$0.3	\$0.5	(\$0.1)	\$0.2	(\$0.7)	(\$1.0)	(\$0.6)	1,358	162
5	AP South	Interface	500	\$0.4	\$0.9	\$0.2	(\$0.3)	\$0.0	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.5)	1,762	146
6	Northwest	Other	BGE	(\$0.8)	(\$0.9)	(\$0.1)	(\$0.0)	\$0.0	(\$0.2)	\$0.3	\$0.5	\$0.5	140	392
7	East	Interface	500	\$3.5	\$3.8	\$0.1	(\$0.2)	\$0.0	\$0.2	(\$0.1)	(\$0.2)	(\$0.4)	320	10
8	Graceton - Safe Harbor	Line	BGE	(\$0.3)	(\$0.3)	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.3	\$0.3	\$0.3	52	80
9	Leonia - New Milford	Line	PSEG	\$0.1	\$0.1	\$0.2	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	576	0
10	Branchburg - Readington	Line	PSEG	\$0.2	\$0.1	\$0.1	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	258	2
11	Hudson - South	Line	PSEG	\$0.2	\$0.1	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	256	0
12	Fairlawn - Saddlebrook	Line	PSEG	\$0.1	\$0.1	\$0.2	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.2	380	6
13	Fairlawn - Waldwick	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.2)	(\$0.2)	(\$0.2)	0	18
14	Cedar Grove - Roseland	Line	PSEG	\$0.7	\$0.3	\$0.2	\$0.6	(\$0.0)	\$0.1	(\$0.3)	(\$0.5)	\$0.2	608	60
15	Cedar Grove - Clifton	Line	PSEG	\$0.2	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	254	0
16	Bayway - Federal Square	Line	PSEG	\$0.1	(\$0.0)	\$0.1	\$0.3	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	\$0.1	886	14
17	Roseland - West Caldwell	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.1)	(\$0.1)	18	6
20	Bridgewater - Middlesex	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	474	2
22	Athenia - Saddlebrook	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	62	0
25	Bergen - Leonia	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	186	0

Table A-38 PSEG Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-27)

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	South Mahwah - Waldwick	Line	PSEG	\$13.0	\$5.7	(\$2.5)	\$4.7	(\$0.9)	\$2.5	(\$6.2)	(\$9.6)	(\$4.9)	3,412	406	
2	Cedar Grove - Roseland	Line	PSEG	\$8.7	\$3.6	\$0.1	\$5.2	(\$0.1)	\$0.6	(\$0.1)	(\$0.7)	\$4.5	1,426	52	
3	AP South	Interface	500	(\$1.0)	\$1.7	\$0.6	(\$2.1)	\$0.1	(\$0.3)	(\$0.7)	(\$0.4)	(\$2.4)	2,344	1,026	
4	5004/5005 Interface	Interface	500	\$25.7	\$25.1	\$1.0	\$1.6	\$0.0	\$2.7	(\$0.6)	(\$3.3)	(\$1.6)	1,026	482	
5	Susquehanna	Transformer	PPL	\$1.5	\$0.2	\$0.0	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	240	0	
6	East	Interface	500	\$4.3	\$4.8	\$0.2	(\$0.4)	(\$0.1)	\$0.5	(\$0.1)	(\$0.7)	(\$1.1)	254	44	
7	Wylie Ridge	Transformer	AP	\$9.3	\$9.7	\$0.5	\$0.2	\$0.0	\$0.9	(\$0.2)	(\$1.1)	(\$0.9)	2,470	658	
8	Branchburg - Readington	Line	PSEG	\$1.9	\$0.6	\$0.1	\$1.4	(\$0.1)	\$0.3	(\$0.1)	(\$0.5)	\$0.9	282	52	
9	Roseland - West Caldwell	Line	PSEG	\$1.4	\$0.4	\$0.1	\$1.0	(\$0.0)	\$0.2	(\$0.1)	(\$0.3)	\$0.7	142	20	
10	Montville - Roseland	Line	PSEG	\$1.1	\$0.6	\$0.0	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	88	0	
11	Plymouth Meeting - Whitpain	Line	PECO	(\$0.3)	\$0.3	\$0.0	(\$0.6)	\$0.0	(\$0.1)	(\$0.0)	\$0.1	(\$0.5)	172	130	
12	Bradford - Planebrook	Line	PECO	\$0.6	\$0.1	\$0.0	\$0.5	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	\$0.5	90	34	
13	Bedington - Black Oak	Interface	500	\$0.5	\$1.1	\$0.2	(\$0.5)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.5)	1,146	0	
14	Limerick	Transformer	PECO	\$0.7	\$0.3	\$0.0	\$0.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	60	0	
15	Atlantic - Larrabee	Line	JCPL	\$0.2	(\$0.1)	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	98	0	
19	Waldwick	Transformer	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	(\$0.2)	(\$0.3)	(\$0.3)	0	14	
20	Cedar Grove - Clifton	Line	PSEG	\$0.4	\$0.2	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	124	0	
21	Susquehanna	Transformer	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.1	(\$0.1)	(\$0.2)	(\$0.2)	0	104	
22	Athenia - Clifton	Line	PSEG	\$0.2	\$0.1	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	202	0	
23	Bridgewater - Middlesex	Line	PSEG	(\$0.1)	\$0.0	\$0.0	(\$0.1)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.2)	754	38	

## RECO Control Zone

Table A-39 RECO Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-28)

Congestion Costs (Millions)														
No.	Constraint	Type	Location	Day Ahead				Balancing				Event Hours		
				Load	Generation	Explicit	Total	Load	Generation	Explicit	Total	Grand Total	Day Ahead	Real Time
				Payments	Credits			Payments	Credits					
1	Graceton - Raphael Road	Line	BGE	(\$0.4)	(\$0.0)	(\$0.0)	(\$0.4)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.3)	2,784	814
2	West	Interface	500	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	482	4
3	East	Interface	500	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	320	10
4	5004/5005 Interface	Interface	500	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	262	128
5	Cedar Grove - Roseland	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	608	60
6	Central	Interface	500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	340	4
7	Crete - St Johns Tap	Flowgate	MISO	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	2,378	310
8	Farragut - Hudson	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	734	0
9	East Sayre - East Towanda	Line	PENELEC	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	650	0
10	Hillsdale - New Milford	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	1,358	162
11	AP South	Interface	500	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	1,762	146
12	Northwest	Other	BGE	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	140	392
13	Leonia - New Milford	Line	PSEG	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	576	0
14	Cedar Grove - Clifton	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	254	0
15	Dickerson - Pleasant View	Line	Pepco	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	244	46

Table A-40 RECO Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-29)

Congestion Costs (Millions)														
No.	Constraint	Type	Location	Day Ahead				Balancing				Event Hours		
				Load	Generation	Explicit	Total	Load	Generation	Explicit	Total	Grand Total	Day Ahead	Real Time
				Payments	Credits			Payments	Credits					
1	South Mahwah - Waldwick	Line	PSEG	(\$0.7)	(\$0.2)	(\$0.0)	(\$0.5)	\$0.0	\$0.3	\$0.0	(\$0.3)	(\$0.8)	3,412	406
2	5004/5005 Interface	Interface	500	\$0.7	\$0.1	\$0.0	\$0.6	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.6	1,026	482
3	Cedar Grove - Roseland	Line	PSEG	\$0.3	\$0.1	\$0.0	\$0.3	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.3	1,426	52
4	Wylie Ridge	Transformer	AP	\$0.2	\$0.1	\$0.0	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.2	2,470	658
5	Crete - St Johns Tap	Flowgate	MISO	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.1	2,988	788
6	West	Interface	500	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.1	462	24
7	East	Interface	500	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.1	254	44
8	Branchburg - Readington	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.1	282	52
9	AP South	Interface	500	(\$0.1)	(\$0.0)	\$0.0	(\$0.1)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	2,344	1,026
10	Susquehanna	Transformer	PPL	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	240	0
11	Roseland - West Caldwell	Line	PSEG	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	142	20
12	Montville - Roseland	Line	PSEG	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	88	0
13	Wolfcreek	Transformer	AEP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	1,432	188
14	Doubs	Transformer	AP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	76	102
15	Central	Interface	500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	90	0

## Western Region Congestion-Event Summaries

## AEP Control Zone

Table A-41 AEP Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-30)

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	Monticello - East Winamac	Flowgate	MISO	\$0.8	(\$4.8)	(\$1.2)	\$4.4	\$0.3	\$0.8	\$0.2	(\$0.3)	\$4.1	1,592	590	
2	Breed - Wheatland	Flowgate	MISO	\$0.2	(\$2.6)	(\$1.2)	\$1.5	\$0.2	\$0.3	\$2.3	\$2.2	\$3.7	1,000	344	
3	AP South	Interface	500	(\$9.1)	(\$12.1)	(\$0.7)	\$2.3	\$0.2	(\$0.0)	\$0.7	\$1.0	\$3.2	1,762	146	
4	Kammer	Transformer	AEP	\$0.9	(\$1.1)	\$0.3	\$2.4	\$0.0	\$0.0	\$0.0	\$0.0	\$2.4	1,990	0	
5	Brues - West Bellaire	Line	AEP	\$1.9	(\$0.2)	\$0.2	\$2.3	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$2.3	1,708	26	
6	Cumberland - Bush	Flowgate	MISO	\$0.3	(\$1.6)	(\$0.1)	\$1.8	\$0.0	\$0.5	\$0.1	(\$0.4)	\$1.4	1,292	238	
7	Breed - Wheatland	Line	AEP	\$0.2	(\$1.3)	(\$0.4)	\$1.1	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	244	0	
8	Wolfcreek	Transformer	AEP	(\$1.2)	(\$2.0)	\$0.4	\$1.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.1)	\$1.0	2,374	18	
9	Jefferson - Clifty Creek	Line	AEP	\$0.1	(\$1.5)	(\$0.7)	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	526	0	
10	Belvidere - Woodstock	Line	ComEd	\$0.0	\$0.0	\$0.2	\$0.2	\$0.0	\$0.0	(\$1.1)	(\$1.1)	(\$0.9)	1,074	748	
11	Belmont	Transformer	AP	\$1.0	(\$1.0)	\$0.7	\$2.6	(\$0.3)	\$0.1	(\$1.5)	(\$1.8)	\$0.8	2,534	98	
12	Muskingum River - Waterford	Line	AEP	(\$0.2)	(\$0.6)	\$0.4	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	590	0	
13	5004/5005 Interface	Interface	500	(\$2.7)	(\$3.1)	(\$0.1)	\$0.3	\$0.1	\$0.0	\$0.3	\$0.3	\$0.6	262	128	
14	Sullivan	Transformer	AEP	(\$0.0)	(\$0.5)	(\$0.1)	\$0.3	\$0.0	(\$0.0)	\$0.2	\$0.2	\$0.6	596	100	
15	Belvidere - Woodstock	Flowgate	ComEd	(\$0.0)	(\$0.1)	\$0.6	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	1,262	0	
16	Jefferson - Rockport	Line	AEP	(\$0.0)	(\$0.8)	(\$0.3)	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	500	0	
17	Breed - Sullivan	Line	AEP	(\$0.1)	(\$0.8)	(\$0.2)	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	394	0	
18	Marquis - Dept of Energy	Line	AEP	\$0.0	(\$0.0)	\$0.5	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	870	0	
24	Eugene - Cayuga	Line	AEP	\$0.1	(\$0.3)	(\$0.1)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	378	0	
25	Conesville	Transformer	AEP	\$0.0	\$0.0	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	4,290	0	

Table A-42 AEP Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-31)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Day Ahead				Balancing				Event Hours				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	Grand Total				
1	AP South	Interface	500	(\$64.8)	(\$85.4)	(\$0.1)	\$20.4	\$0.3	\$3.7	\$1.0	(\$2.3)	\$18.1	2,344	1,026		
2	Belmont	Transformer	AP	\$5.2	(\$7.1)	\$1.5	\$13.7	(\$0.9)	(\$0.3)	(\$1.5)	(\$2.1)	\$11.6	3,054	210		
3	AEP-DOM	Interface	500	(\$5.0)	(\$13.0)	\$0.9	\$8.9	(\$0.0)	\$0.5	(\$0.2)	(\$0.7)	\$8.2	586	176		
4	5004/5005 Interface	Interface	500	(\$55.5)	(\$64.3)	(\$0.6)	\$8.2	\$0.3	\$1.2	\$0.6	(\$0.4)	\$7.8	1,026	482		
5	Bedington - Black Oak	Interface	500	(\$15.9)	(\$20.1)	(\$0.1)	\$4.1	\$0.0	\$0.0	\$0.0	\$0.0	\$4.1	1,146	0		
6	Wylie Ridge	Transformer	AP	(\$35.0)	(\$39.6)	(\$0.8)	\$3.8	\$0.2	\$1.1	\$0.5	(\$0.4)	\$3.4	2,470	658		
7	Wolfcreek	Transformer	AEP	(\$4.3)	(\$6.9)	\$0.4	\$3.0	(\$0.2)	(\$0.0)	(\$0.4)	(\$0.5)	\$2.5	1,432	188		
8	Baker - Broadford	Line	AEP	(\$0.1)	(\$0.7)	\$0.1	\$0.8	\$0.5	\$1.7	(\$1.1)	(\$2.3)	(\$1.5)	16	40		
9	West	Interface	500	(\$10.2)	(\$11.5)	(\$0.1)	\$1.2	\$0.0	\$0.1	\$0.0	(\$0.0)	\$1.2	462	24		
10	Crete - St Johns Tap	Flowgate	MISO	\$15.1	\$16.1	(\$0.5)	(\$1.5)	(\$0.0)	(\$0.1)	\$0.3	\$0.4	(\$1.1)	2,988	788		
11	Carnegie - Tidd	Line	AEP	(\$2.4)	(\$3.0)	(\$0.3)	\$0.4	\$0.1	(\$0.0)	\$0.4	\$0.5	\$0.9	646	398		
12	Susquehanna	Transformer	PPL	(\$4.4)	(\$5.3)	(\$0.0)	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	240	0		
13	Carnegie - Tidd	Line	AECO	(\$2.0)	(\$3.0)	(\$0.3)	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	756	0		
14	Bayshore	Transformer	ATSI	\$0.0	\$0.0	(\$0.5)	(\$0.5)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.5)	0	0		
15	Rising	Flowgate	MISO	\$0.8	\$1.1	\$0.0	(\$0.3)	\$0.0	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.5)	96	108		
23	Brues - West Bellaire	Line	AEP	\$1.0	\$0.3	\$0.1	\$0.8	(\$0.5)	\$0.5	(\$0.1)	(\$1.0)	(\$0.2)	158	142		
27	Conesville Prep - Conesville	Line	AEP	(\$0.1)	(\$0.4)	(\$0.1)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	408	0		
35	Sporn - Kyger Creek	Line	AEP	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	252	0		
38	Cloverdale - Ivy Hill	Line	AEP	\$0.0	(\$0.2)	\$0.0	\$0.2	(\$0.1)	\$0.0	(\$0.0)	(\$0.1)	\$0.1	48	36		
40	Kanawha - Kincaid	Line	AEP	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	36	0		

## AP Control Zone

Table A-43 AP Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-32)

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	(\$1.7)	(\$8.3)	\$0.1	\$6.6	\$0.3	\$1.3	(\$0.6)	(\$1.6)	\$5.0	1,762	146	
2	Belmont	Transformer	AP	\$2.6	(\$0.2)	\$0.2	\$2.9	(\$0.2)	\$1.1	(\$0.3)	(\$1.5)	\$1.4	2,534	98	
3	Shaffer - Springdale	Line	AP	\$0.0	(\$0.5)	(\$0.1)	\$0.5	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.5	410	112	
4	Wolfcreek	Transformer	AEP	\$1.0	\$0.8	\$0.2	\$0.4	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.3	2,374	18	
5	Brunot Island - Montour	Line	DLCO	\$0.7	\$0.4	\$0.1	\$0.4	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	\$0.3	542	292	
6	5004/5005 Interface	Interface	500	(\$0.8)	(\$1.1)	(\$0.0)	\$0.2	(\$0.0)	\$0.2	\$0.2	\$0.1	\$0.3	262	128	
7	Kammer	Transformer	AEP	\$0.1	(\$0.1)	\$0.1	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	1,990	0	
8	Belvidere - Woodstock	Line	ComEd	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.2)	(\$0.2)	1,074	748	
9	Dickerson - Pleasant View	Line	Pepco	\$0.2	(\$0.1)	\$0.1	\$0.3	\$0.1	\$0.0	(\$0.2)	(\$0.1)	\$0.2	244	46	
10	West	Interface	500	(\$2.2)	(\$2.6)	(\$0.3)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	482	4	
11	East	Interface	500	(\$1.0)	(\$1.0)	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.2)	320	10	
12	Gardners - Texas East	Line	Met-Ed	\$0.1	\$0.0	\$0.0	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	400	8	
13	Tiltonville - Windsor	Line	AP	\$0.2	\$0.1	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	508	0	
14	Graceton - Raphael Road	Line	BGE	\$2.1	\$1.8	\$0.3	\$0.6	(\$0.0)	\$0.1	(\$0.2)	(\$0.4)	\$0.1	2,784	814	
15	Belvidere - Woodstock	Flowgate	ComEd	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,262	0	
22	Doubs - Frostown	Line	AP	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	\$0.1	(\$0.1)	(\$0.1)	\$0.1	80	24	
23	Cherry Run - Morgan	Line	AP	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	208	0	
25	Elrama - Mitchell	Line	AP	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	210	0	
29	Kingwood - Pruntytown	Line	AP	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	56	0	
32	East Waynesboro - Ringgold	Line	AP	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	142	12	

Table A-44 AP Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-33)

No.	Constraint	Type	Location	Congestion Costs (Millions)										Day Ahead	Real Time
				Day Ahead				Balancing				Event Hours			
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	Grand Total			
1	AP South	Interface	500	(\$15.7)	(\$50.4)	(\$5.0)	\$29.6	\$2.5	\$3.1	\$4.8	\$4.1	\$33.7	2,344	1,026	
2	Belmont	Transformer	AP	\$14.5	\$1.7	\$0.6	\$13.5	(\$1.1)	(\$0.2)	(\$0.5)	(\$1.4)	\$12.1	3,054	210	
3	5004/5005 Interface	Interface	500	(\$17.3)	(\$25.1)	(\$3.3)	\$4.5	\$1.1	\$0.9	\$2.4	\$2.5	\$7.0	1,026	482	
4	Bedington - Black Oak	Interface	500	(\$3.0)	(\$11.1)	(\$1.9)	\$6.2	\$0.0	\$0.0	\$0.0	\$0.0	\$6.2	1,146	0	
5	Wylie Ridge	Transformer	AP	\$5.1	\$7.8	\$3.3	\$0.7	(\$0.1)	(\$0.3)	(\$3.0)	(\$2.7)	(\$2.0)	2,470	658	
6	AEP-DOM	Interface	500	(\$0.8)	(\$2.3)	(\$0.3)	\$1.3	\$0.0	\$0.0	\$0.3	\$0.3	\$1.7	586	176	
7	Wolfcreek	Transformer	AEP	\$3.1	\$4.3	\$0.3	(\$0.9)	(\$0.3)	(\$0.2)	(\$0.3)	(\$0.3)	(\$1.2)	1,432	188	
8	Carnegie - Tidd	Line	AEP	\$1.3	\$0.5	\$0.2	\$1.1	(\$0.1)	(\$0.0)	(\$0.1)	(\$0.2)	\$0.8	646	398	
9	Tiltsville - Windsor	Line	AP	\$1.4	\$0.4	\$0.2	\$1.1	(\$0.1)	(\$0.0)	(\$0.2)	(\$0.3)	\$0.8	416	90	
10	Hamilton - Weirton	Line	AP	\$1.0	\$0.3	\$0.1	\$0.8	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.7	276	6	
11	Doubs	Transformer	AP	\$0.3	(\$0.3)	(\$0.0)	\$0.6	\$0.2	\$0.1	\$0.1	\$0.1	\$0.7	76	102	
12	Carnegie - Tidd	Line	AECO	\$0.8	\$0.2	\$0.0	\$0.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.7	756	0	
13	Butler - Karns City	Line	AP	\$1.4	\$0.9	(\$0.1)	\$0.4	(\$0.1)	(\$0.3)	\$0.0	\$0.3	\$0.7	738	88	
14	Cloverdale - Lexington	Line	500	\$0.2	(\$0.4)	\$0.1	\$0.6	\$0.2	\$0.0	(\$0.4)	(\$0.2)	\$0.4	344	310	
15	South Mahwah - Waldwick	Line	PSEG	(\$1.4)	(\$1.5)	\$0.5	\$0.6	\$0.1	\$0.2	(\$0.9)	(\$1.0)	(\$0.4)	3,412	406	
20	Collinsf - Osage	Line	AP	\$0.1	(\$0.1)	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	108	0	
22	Kingwood - Pruntytown	Line	AP	\$0.2	\$0.1	\$0.0	\$0.2	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.2	68	4	
27	Bedington	Transformer	AP	\$0.1	(\$0.1)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	20	10	
30	Kingsfarm - Sony	Line	AP	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.0	\$0.0	(\$0.1)	(\$0.1)	0	0	
31	Armstrong - Burma	Line	AP	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	16	30	

## ATSI Control Zone

Table A-45 ATSI Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-34)

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	(\$7.1)	(\$6.5)	(\$0.1)	(\$0.7)	(\$0.1)	\$0.1	\$0.1	(\$0.1)	(\$0.8)	1,762	146	
2	Niles - Evergreen	Line	ATSI	\$0.5	\$0.0	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	150	0	
3	5004/5005 Interface	Interface	500	(\$1.4)	(\$1.3)	(\$0.0)	(\$0.2)	(\$0.1)	\$0.1	\$0.0	(\$0.1)	(\$0.3)	262	128	
4	West	Interface	500	(\$2.9)	(\$2.6)	(\$0.0)	(\$0.3)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.3)	482	4	
5	Lakeview - Ottawa	Line	ATSI	\$0.2	(\$0.1)	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	78	0	
6	Graceton - Raphael Road	Line	BGE	\$1.1	\$1.0	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	\$0.1	\$0.1	\$0.2	2,784	814	
7	Lemoyne	Transformer	ATSI	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	\$0.1	\$0.0	\$0.2	\$0.2	0	10	
8	Crete - St Johns Tap	Flowgate	MISO	\$1.1	\$1.0	\$0.1	\$0.2	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	2,378	310	
9	Prairie State - W Mt. Vernon	Flowgate	MISO	\$0.2	\$0.2	\$0.1	\$0.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.1	774	220	
10	Wolfcreek	Transformer	AEP	(\$0.3)	(\$0.2)	\$0.0	(\$0.1)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	2,374	18	
11	East	Interface	500	(\$1.1)	(\$1.0)	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	320	10	
12	Benton Harbor - Palisades	Flowgate	MISO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	0	10	
13	Dickerson - Pleasant View	Line	Pepco	(\$0.2)	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	244	46	
14	Central	Interface	500	(\$0.5)	(\$0.4)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	340	4	
15	Brunot Island - Montour	Line	DLCO	(\$1.4)	(\$1.5)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.1	542	292	
33	Brookside - Wellington	Line	ATSI	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	48	0	
236	Camp - Keisters	Line	ATSI	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	42	0	

## ComEd Control Zone

Table A-46 ComEd Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-35)

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	Belvidere - Woodstock	Flowgate	ComEd	(\$1.1)	(\$12.5)	\$1.2	\$12.6	\$0.0	\$0.0	\$0.0	\$0.0	\$12.6	1,262	0
2	Electric Jct - Nelson	Line	ComEd	(\$0.5)	(\$3.1)	\$1.1	\$3.7	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$3.7	1,106	10
3	Silver Lake - Pleasant Valley	Line	ComEd	(\$2.0)	(\$4.7)	\$0.6	\$3.4	\$0.0	\$0.0	\$0.0	\$0.0	\$3.4	1,634	0
4	Crete - St Johns Tap	Flowgate	MISO	(\$16.6)	(\$23.6)	(\$3.3)	\$3.7	\$0.2	\$0.5	(\$0.1)	(\$0.4)	\$3.3	2,378	310
5	Oak Grove - Galesburg	Flowgate	MISO	(\$4.1)	(\$7.6)	\$4.8	\$8.4	(\$0.1)	\$0.6	(\$4.5)	(\$5.2)	\$3.2	2,640	680
6	Prairie State - W Mt. Vernon	Flowgate	MISO	(\$4.9)	(\$6.8)	\$0.6	\$2.6	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$2.5	774	220
7	Lancaster - Maryland	Line	ComEd	\$0.2	(\$0.2)	\$0.2	\$0.6	(\$0.4)	\$0.7	(\$1.9)	(\$2.9)	\$2.3	266	116
8	Mazon - Mazon	Line	ComEd	\$0.1	(\$1.3)	\$0.9	\$2.3	(\$0.0)	\$0.0	(\$0.2)	(\$0.2)	\$2.1	818	64
9	AP South	Interface	500	(\$9.3)	(\$11.2)	(\$0.1)	\$1.8	\$0.1	(\$0.0)	\$0.1	\$0.2	\$2.0	1,762	146
10	Lasalle - Streator	Line	ComEd	\$0.0	\$0.1	\$1.7	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	1,024	0
11	Graceton - Raphael Road	Line	BGE	\$6.6	\$7.9	\$0.1	(\$1.2)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	\$1.3	2,784	814
12	Cherry Valley	Transformer	ComEd	\$0.3	(\$0.6)	\$0.1	\$1.1	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$1.1	646	4
13	West	Interface	500	(\$5.4)	(\$6.4)	(\$0.1)	\$1.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.0	482	4
14	5004/5005 Interface	Interface	500	(\$2.5)	(\$2.9)	(\$0.0)	\$0.4	\$0.2	(\$0.1)	\$0.1	\$0.3	\$0.8	262	128
15	La Salle - La Salle	Line	ComEd	(\$0.1)	(\$0.2)	\$0.6	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	638	0
18	Pleasant Valley - Belvidere	Line	ComEd	(\$0.2)	(\$1.0)	(\$0.1)	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	238	0
22	Dixon - Stillman Valley	Line	ComEd	\$0.2	(\$0.1)	\$0.1	\$0.4	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$0.4	448	14
28	Burnham - Munster	Line	ComEd	(\$0.9)	(\$1.1)	(\$0.2)	\$0.0	\$0.1	\$0.2	(\$0.1)	(\$0.3)	\$0.2	126	62
31	Woodstock - 12205	Line	ComEd	(\$0.0)	(\$0.2)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	14	0
33	Belvidere - Woodstock	Line	ComEd	\$0.1	(\$3.8)	\$0.5	\$4.5	(\$0.9)	\$1.1	(\$2.2)	(\$4.3)	\$0.2	1,074	748

Table A-47 ComEd Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-36)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Event Hours	
				Day Ahead				Balancing				Grand Total				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total					
1	AP South	Interface	500	(\$67.8)	(\$75.6)	(\$0.6)	\$7.2	\$4.0	\$1.0	\$0.2	\$3.3	\$10.4	2,344	1,026		
2	Crete - St Johns Tap	Flowgate	MISO	(\$90.8)	(\$105.6)	(\$10.8)	\$4.0	\$4.1	\$1.7	\$3.2	\$5.6	\$9.6	2,988	788		
3	5004/5005 Interface	Interface	500	(\$52.2)	(\$58.2)	(\$0.4)	\$5.7	\$1.7	\$0.8	\$0.4	\$1.3	\$7.0	1,026	482		
4	Wylie Ridge	Transformer	AP	(\$31.7)	(\$35.3)	(\$0.1)	\$3.5	\$1.5	\$0.4	(\$0.1)	\$1.0	\$4.5	2,470	658		
5	Electric Jct - Nelson	Line	ComEd	(\$0.7)	(\$6.0)	\$1.5	\$6.9	\$0.0	\$0.2	(\$2.5)	(\$2.7)	\$4.2	894	78		
6	Lakeview - Pleasant Prairie	Flowgate	MISO	\$0.3	\$0.2	\$0.2	\$0.3	(\$0.1)	(\$0.0)	(\$3.5)	(\$3.7)	(\$3.4)	48	328		
7	Pleasant Prairie - Zion	Flowgate	MISO	\$0.1	(\$0.7)	\$1.9	\$2.7	(\$0.0)	\$0.0	(\$5.6)	(\$5.6)	(\$2.9)	1,186	280		
8	Benton Harbor - Palisades	Flowgate	MISO	(\$1.8)	(\$2.0)	(\$0.2)	\$0.0	\$0.9	(\$0.0)	\$1.3	\$2.3	\$2.3	134	92		
9	Cherry Valley	Transformer	ComEd	\$0.9	(\$1.0)	\$0.3	\$2.2	\$0.0	\$0.1	(\$0.1)	(\$0.1)	\$2.1	650	20		
10	Bedington - Black Oak	Interface	500	(\$15.8)	(\$17.8)	(\$0.2)	\$1.8	\$0.0	\$0.0	\$0.0	\$0.0	\$1.8	1,146	0		
11	Pleasant Valley - Belvidere	Line	ComEd	(\$0.7)	(\$2.3)	\$0.4	\$2.1	\$0.0	\$0.1	(\$0.3)	(\$0.4)	\$1.7	440	80		
12	Wilton Center	Transformer	ComEd	\$0.1	\$0.0	\$1.2	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	0	0		
13	West	Interface	500	(\$10.3)	(\$11.6)	(\$0.1)	\$1.2	\$0.1	\$0.1	\$0.0	\$0.1	\$1.2	462	24		
14	Cloverdale - Lexington	Line	500	(\$3.0)	(\$3.4)	(\$0.0)	\$0.4	\$1.2	\$0.6	\$0.1	\$0.7	\$1.1	344	310		
15	Belmont	Transformer	AP	(\$8.6)	(\$9.6)	(\$0.1)	\$0.8	\$0.3	\$0.1	\$0.1	\$0.3	\$1.1	3,054	210		
19	Zion	Line	ComEd	\$0.1	(\$0.1)	\$0.6	\$0.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	864	0		
20	Zion - Lakeview	Line	ComEd	\$0.1	(\$0.2)	\$0.5	\$0.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	332	0		
21	Nelson - Cordova	Line	ComEd	\$0.6	(\$0.7)	\$0.8	\$2.1	(\$0.1)	\$0.2	(\$1.0)	(\$1.3)	\$0.8	604	40		
25	Belvidere - Woodstock	Line	ComEd	(\$0.0)	(\$0.6)	\$0.1	\$0.7	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	\$0.6	136	24		
26	East Frankfort - Crete	Line	ComEd	(\$3.4)	(\$4.2)	(\$0.2)	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	576	2		

## DAY Control Zone

Table A-48 DAY Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-37)

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	AP South	Interface	500	(\$1.4)	(\$1.3)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	1,762	146
2	5004/5005 Interface	Interface	500	(\$0.3)	(\$0.4)	(\$0.0)	\$0.0	(\$0.0)	\$0.1	\$0.0	(\$0.1)	(\$0.1)	262	128
3	Foster2 - Pierce	Line	DAY	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,022	0
4	Belvidere - Woodstock	Line	ComEd	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	1,074	748
5	Brunot Island - Montour	Line	DLCO	(\$0.1)	(\$0.1)	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	542	292
6	West	Interface	500	(\$0.7)	(\$0.8)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	482	4
7	East	Interface	500	(\$0.3)	(\$0.4)	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.1	320	10
8	Lasalle - Streator	Line	ComEd	\$0.0	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,024	0
9	Dickerson - Pleasant View	Line	Pepco	(\$0.1)	(\$0.1)	\$0.0	\$0.0	(\$0.0)	\$0.1	(\$0.0)	(\$0.1)	(\$0.1)	244	46
10	Beckjord - Pierce	Line	DEOK	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	(\$0.1)	32	12
11	Trenton - Hutchings	Line	DAY	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	96	0
12	Belvidere - Woodstock	Flowgate	ComEd	(\$0.0)	(\$0.0)	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,262	0
13	Muskingum River - Waterford	Line	AEP	(\$0.0)	(\$0.1)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	590	0
14	Jefferson - Clifty Creek	Line	AEP	\$0.1	\$0.1	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	526	0
15	Monticello - East Winamac	Flowgate	MISO	(\$0.0)	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.1)	(\$0.0)	1,592	590
61	Miami Fort	Transformer	DAY	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	1,012	24
68	Hillcrest - Stuart	Line	DAY	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	10	0

Table A-49 DAY Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, G-38)

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	Pierce - Foster	Flowgate	MISO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.6)	(\$0.6)	(\$0.6)	0	12
2	West	Interface	500	(\$1.2)	(\$1.5)	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	462	24
3	Cloverdale - Lexington	Line	500	(\$0.4)	(\$0.4)	\$0.0	\$0.0	\$0.1	\$0.4	\$0.0	(\$0.3)	(\$0.3)	344	310
4	5004/5005 Interface	Interface	500	(\$6.7)	(\$6.7)	(\$0.0)	(\$0.0)	\$0.1	\$0.4	\$0.1	(\$0.2)	(\$0.2)	1,026	482
5	Wolfcreek	Transformer	AEP	(\$0.8)	(\$1.1)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.2	1,432	188
6	AEP-DOM	Interface	500	(\$1.3)	(\$1.5)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	586	176
7	Susquehanna	Transformer	PPL	(\$0.5)	(\$0.7)	\$0.0	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	240	0
8	Bedington - Black Oak	Interface	500	(\$2.1)	(\$2.3)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	1,146	0
9	Crete - St Johns Tap	Flowgate	MISO	\$1.7	\$1.8	(\$0.1)	(\$0.2)	(\$0.0)	(\$0.0)	\$0.1	\$0.1	(\$0.2)	2,988	788
10	AP South	Interface	500	(\$9.0)	(\$9.4)	(\$0.2)	\$0.2	\$0.2	\$0.7	\$0.2	(\$0.4)	(\$0.1)	2,344	1,026
11	South Mahwah - Waldwick	Line	PSEG	(\$0.7)	(\$0.8)	(\$0.0)	\$0.1	\$0.0	\$0.1	\$0.0	(\$0.0)	\$0.1	3,412	406
12	Wylie Ridge	Transformer	AP	(\$4.2)	(\$4.4)	(\$0.1)	\$0.2	\$0.1	\$0.2	\$0.1	(\$0.1)	\$0.1	2,470	658
13	Benton Harbor - Palisades	Flowgate	MISO	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	(\$0.1)	(\$0.1)	134	92
14	Bristers - Ox	Line	Dominion	(\$0.1)	(\$0.2)	\$0.0	\$0.1	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	66	50
15	Marquis - Dept of Energy	Line	AEP	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	118	0

## DEOK Control Zone

Table A-50 DEOK Control Zone top congestion cost impacts (By facility): January through March 2012 (New Table)

Congestion Costs (Millions)														
No.	Constraint	Type	Location	Day Ahead				Balancing				Event Hours		
				Load	Generation	Explicit	Total	Load	Generation	Explicit	Total	Grand Total	Day Ahead	Real Time
				Payments	Credits			Payments	Credits					
1	Graceton - Raphael Road	Line	BGE	\$1.2	\$0.7	(\$0.0)	\$0.5	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.6	2,784	814
2	Breed - Wheatland	Flowgate	MISO	\$0.3	\$0.3	\$0.1	\$0.1	\$0.0	(\$0.0)	(\$0.6)	(\$0.5)	(\$0.4)	1,000	344
3	Miami Fort - Hebron	Flowgate	MISO	\$0.5	\$0.1	\$0.1	\$0.5	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.1)	\$0.4	712	66
4	AP South	Interface	500	(\$1.6)	(\$1.3)	(\$0.0)	(\$0.3)	(\$0.1)	(\$0.0)	\$0.0	(\$0.0)	(\$0.4)	1,762	146
5	West	Interface	500	(\$0.9)	(\$0.7)	(\$0.0)	(\$0.2)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.2)	482	4
6	5004/5005 Interface	Interface	500	(\$0.4)	(\$0.4)	\$0.0	(\$0.0)	(\$0.1)	\$0.1	\$0.0	(\$0.2)	(\$0.2)	262	128
7	Miami Fort	Transformer	DAY	\$0.2	\$0.1	\$0.1	\$0.2	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.2	1,012	24
8	East	Interface	500	(\$0.4)	(\$0.3)	(\$0.0)	(\$0.1)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.1)	320	10
9	Foster2 - Pierce	Line	DAY	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,022	0
10	AEP-DOM	Interface	500	(\$0.1)	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	(\$0.1)	(\$0.1)	132	62
11	Monticello - East Winamac	Flowgate	MISO	(\$0.1)	(\$0.1)	\$0.2	\$0.2	\$0.0	\$0.0	(\$0.2)	(\$0.3)	(\$0.1)	1,592	590
12	Eugene - Cayuga	Line	AEP	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	378	0
13	Crete - St Johns Tap	Flowgate	MISO	\$0.4	\$0.3	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	2,378	310
14	Jefferson - Clifty Creek	Line	AEP	\$0.2	\$0.2	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	526	0
15	Hebron - Constance	Line	DEOK	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	168	0
43	Cedarville - Ford Batavia	Line	DEOK	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	4	18
88	Beckjord - Pierce	Line	DEOK	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	32	12
117	Miami Fort - Ebenezer	Line	DEOK	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	0	6

## DLCO Control Zone

Table A-51 DLCO Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-39)

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	Brunot Island - Montour	Line	DLCO	\$1.1	(\$0.3)	\$0.1	\$1.5	\$0.0	\$0.2	(\$0.2)	(\$0.4)	\$1.1	542	292	
2	Crescent	Transformer	DLCO	\$0.5	(\$0.1)	\$0.0	\$0.6	(\$0.0)	\$0.0	(\$0.0)	(\$0.0)	\$0.6	200	16	
3	AP South	Interface	500	(\$1.7)	(\$2.2)	(\$0.1)	\$0.4	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.4	1,762	146	
4	Clinton - Findlay	Line	DLCO	\$0.3	\$0.0	\$0.0	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	106	0	
5	Arsenal - Brunot Island	Line	DLCO	\$0.4	\$0.1	\$0.1	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	184	0	
6	Crescent - Montour	Line	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.1	(\$0.1)	(\$0.2)	(\$0.2)	0	46	
7	Crescent - Montour	Unclassified	DLCO	\$0.1	(\$0.0)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	0	0	
8	St. Joe	Other	DLCO	\$0.1	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	1,000	0	
9	West	Interface	500	(\$0.7)	(\$0.8)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	482	4	
10	Graceton - Raphael Road	Line	BGE	\$0.2	\$0.3	(\$0.0)	(\$0.1)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	(\$0.1)	2,784	814	
11	Crescent - Sewickly	Line	DLCO	\$0.1	(\$0.0)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	20	0	
12	Beaver - Clinton	Line	DLCO	\$0.0	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	84	0	
13	Crete - St Johns Tap	Flowgate	MISO	\$0.2	\$0.3	\$0.0	(\$0.1)	\$0.0	(\$0.0)	(\$0.0)	\$0.0	(\$0.1)	2,378	310	
14	Neville Tap - Sewickley	Line	DLCO	\$0.0	(\$0.0)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	18	0	
15	Tiltonsville - Windsor	Line	AP	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	508	0	
17	Collier	Transformer	DLCO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	12	4	
25	Brunot Island - Neville	Line	DLCO	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	16	0	
43	USAP - Woodville	Line	DLCO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.0)	6	22	
47	Beaver - Sammis	Line	DLCO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	32	4	
199	Dravosburg - West Mifflin	Line	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	0	4	

Table A-52 DLCO Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-40)

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	Wylie Ridge	Transformer	AP	(\$9.7)	(\$13.6)	(\$0.3)	\$3.6	(\$0.4)	(\$0.1)	\$0.2	(\$0.2)	\$3.4	2,470	658	
2	AP South	Interface	500	(\$9.8)	(\$12.6)	(\$0.2)	\$2.7	(\$0.9)	(\$0.2)	\$0.2	(\$0.5)	\$2.2	2,344	1,026	
3	Collier - Elwyn	Line	DLCO	\$1.5	(\$0.1)	\$0.0	\$1.6	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$1.7	378	22	
4	Crescent	Transformer	DLCO	\$1.1	(\$0.1)	\$0.0	\$1.2	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	212	0	
5	5004/5005 Interface	Interface	500	(\$6.3)	(\$7.9)	(\$0.1)	\$1.5	(\$0.4)	(\$0.0)	\$0.1	(\$0.3)	\$1.2	1,026	482	
6	Bedington - Black Oak	Interface	500	(\$2.1)	(\$2.6)	(\$0.0)	\$0.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.6	1,146	0	
7	AEP-DOM	Interface	500	(\$0.7)	(\$1.1)	(\$0.0)	\$0.4	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.3	586	176	
8	Crete - St Johns Tap	Flowgate	MISO	\$1.2	\$1.6	\$0.0	(\$0.3)	\$0.0	\$0.0	(\$0.0)	\$0.0	(\$0.3)	2,988	788	
9	West	Interface	500	(\$1.1)	(\$1.3)	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	(\$0.0)	\$0.2	462	24	
10	Arsenal - Brunot Island	Line	DLCO	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.2	70	16	
11	Beaver - Sammis	Line	DLCO	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.1	\$0.0	(\$0.2)	(\$0.2)	0	22	
12	Butler - Karns City	Line	AP	(\$0.5)	(\$0.7)	(\$0.0)	\$0.2	(\$0.0)	(\$0.0)	\$0.0	(\$0.0)	\$0.2	738	88	
13	Elrama - Mitchell	Line	AP	(\$0.2)	(\$0.2)	(\$0.0)	(\$0.1)	(\$0.0)	\$0.0	\$0.0	(\$0.0)	(\$0.1)	190	34	
14	Arsenal	Transformer	DLCO	\$0.1	(\$0.0)	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	34	0	
15	East	Interface	500	(\$0.4)	(\$0.5)	(\$0.0)	\$0.1	(\$0.0)	\$0.0	\$0.0	(\$0.0)	\$0.1	254	44	
17	Arsenal - Oakland	Line	DLCO	\$0.1	(\$0.0)	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	48	12	
53	Beaver - Mansfield	Line	DLCO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	6	0	
57	Brunot Island - Forbes	Line	DLCO	\$0.0	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	22	0	
72	Brentwood - Elwyn	Line	DLCO	\$0.0	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	2	0	
183	Bocgases	Transformer	DLCO	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	162	0	

## Southern Region Congestion-Event Summaries

## Dominion Control Zone

Table A-53 Dominion Control Zone top congestion cost impacts (By facility): January through March 2012 (See 2011 SOM, Table G-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	AP South	Interface	500	\$31.3	\$25.4	(\$0.0)	\$5.9	\$0.3	\$0.0	(\$0.5)	(\$0.2)	\$5.7	1,762	146
2	Graceton - Raphael Road	Line	BGE	\$30.0	\$27.5	\$0.6	\$3.1	(\$0.1)	(\$0.2)	(\$0.3)	(\$0.2)	\$2.9	2,784	814
3	Clover	Transformer	Dominion	\$1.0	\$0.3	\$0.2	\$0.9	\$0.0	\$0.0	(\$0.1)	(\$0.1)	\$0.8	814	34
4	Dickerson - Pleasant View	Line	Pepco	(\$3.5)	(\$3.2)	(\$0.1)	(\$0.4)	(\$0.3)	\$0.1	\$0.1	(\$0.3)	(\$0.7)	244	46
5	Breed - Wheatland	Flowgate	MISO	\$0.3	\$0.3	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.4)	(\$0.4)	(\$0.4)	1,000	344
6	East	Interface	500	(\$3.9)	(\$3.8)	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	\$0.1	(\$0.0)	(\$0.2)	320	10
7	5004/5005 Interface	Interface	500	(\$0.8)	(\$1.1)	(\$0.0)	\$0.2	\$0.1	\$0.2	\$0.1	\$0.0	\$0.2	262	128
8	Crete - St Johns Tap	Flowgate	MISO	\$2.8	\$2.6	\$0.1	\$0.2	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	\$0.2	2,378	310
9	West	Interface	500	(\$4.7)	(\$4.9)	(\$0.1)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	482	4
10	Northwest	Other	BGE	\$1.7	\$1.6	\$0.0	\$0.2	\$0.0	(\$0.1)	(\$0.2)	(\$0.0)	\$0.1	140	392
11	Monticello - East Winamac	Flowgate	MISO	(\$0.4)	(\$0.4)	\$0.1	\$0.1	\$0.0	\$0.1	(\$0.2)	(\$0.2)	(\$0.1)	1,592	590
12	AEP-DOM	Interface	500	\$0.7	\$0.7	\$0.0	\$0.1	(\$0.2)	(\$0.1)	(\$0.1)	(\$0.2)	(\$0.1)	132	62
13	Graceton - Safe Harbor	Line	BGE	\$0.5	\$0.4	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	\$0.0	\$0.1	52	80
14	Wolfcreek	Transformer	AEP	\$0.7	\$0.7	\$0.0	\$0.1	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	2,374	18
15	Cumberland - Bush	Flowgate	MISO	\$0.2	\$0.2	\$0.1	\$0.1	\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.1)	1,292	238
16	Four Rivers - Hanover	Line	Dominion	(\$0.0)	(\$0.1)	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	56	0
19	Hollymead - Charlottesville	Line	Dominion	\$0.1	\$0.0	\$0.0	\$0.1	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.1	34	4
26	Chaparral - Locks	Line	Dominion	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	18	0
27	Battleboro - Rocky Mount	Line	Dominion	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	12	0
30	Beechwood - Kerr Dam	Line	Dominion	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	\$0.0	16	2

Table A-54 Dominion Control Zone top congestion cost impacts (By facility): January through March 2011 (See 2011 SOM, Table G-42)

No.	Constraint	Type	Location	Congestion Costs (Millions)											Day Ahead	Real Time
				Day Ahead				Balancing				Event Hours				
				Load Payments	Generation Credits	Explicit	Total	Load Payments	Generation Credits	Explicit	Total	Grand Total				
1	AP South	Interface	500	\$169.0	\$122.8	\$0.5	\$46.6	\$1.0	\$4.5	(\$0.6)	(\$4.2)	\$42.4	2,344	1,026		
2	Bedington - Black Oak	Interface	500	\$30.9	\$27.7	\$0.5	\$3.7	\$0.0	\$0.0	\$0.0	\$0.0	\$3.7	1,146	0		
3	AEP-DOM	Interface	500	\$18.6	\$17.0	\$0.3	\$1.8	(\$0.2)	(\$0.3)	(\$0.1)	(\$0.0)	\$1.8	586	176		
4	Wylie Ridge	Transformer	AP	\$15.0	\$13.6	\$0.4	\$1.8	\$0.1	\$0.0	(\$0.3)	(\$0.2)	\$1.6	2,470	658		
5	Crete - St Johns Tap	Flowgate	MISO	\$16.3	\$14.8	\$0.1	\$1.6	(\$0.1)	(\$0.2)	(\$0.1)	(\$0.0)	\$1.6	2,988	788		
6	Bristers - Ox	Line	Dominion	(\$1.7)	(\$3.1)	\$0.0	\$1.5	\$0.4	\$0.5	(\$0.1)	(\$0.1)	\$1.4	66	50		
7	Cloverdale - Lexington	Line	500	\$5.5	\$4.4	\$0.2	\$1.2	\$0.1	(\$0.1)	(\$0.4)	(\$0.3)	\$0.9	344	310		
8	Chesterfield - Turner	Line	Dominion	\$1.0	\$0.6	\$0.0	\$0.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	46	0		
9	Clover	Transformer	Dominion	\$1.4	\$0.7	\$0.2	\$0.8	(\$0.0)	\$0.2	(\$0.1)	(\$0.4)	\$0.5	296	82		
10	Susquehanna	Transformer	PPL	(\$6.0)	(\$5.6)	(\$0.1)	(\$0.5)	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.5)	240	0		
11	East	Interface	500	(\$5.6)	(\$5.3)	(\$0.0)	(\$0.3)	\$0.1	\$0.2	\$0.0	(\$0.1)	(\$0.4)	254	44		
12	Valley	Transformer	Dominion	\$0.7	\$0.3	(\$0.0)	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	10	0		
13	South Mahwah - Waldwick	Line	PSEG	(\$3.6)	(\$3.5)	\$0.2	\$0.1	\$0.1	\$0.2	(\$0.3)	(\$0.4)	(\$0.3)	3,412	406		
14	Beechwood - Kerr Dam	Line	Dominion	\$0.3	\$0.0	(\$0.0)	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.2	16	0		
15	Burches Hill	Transformer	Pepco	(\$0.2)	(\$0.2)	(\$0.0)	(\$0.0)	(\$0.3)	(\$0.0)	\$0.0	(\$0.2)	(\$0.2)	16	88		
17	Chaparral - Carson	Line	Dominion	\$0.6	\$0.4	\$0.0	\$0.2	(\$0.0)	\$0.1	(\$0.2)	(\$0.4)	(\$0.2)	58	50		
20	Harrisonburg - Endless Caverns	Line	Dominion	\$0.2	\$0.0	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	34	0		
21	Margarettsville - Seaboard	Line	Dominion	\$0.2	\$0.1	(\$0.0)	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	2	0		
32	Dow Tap - Leehall	Line	Dominion	\$0.4	\$0.3	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	20	0		
34	Gosport	Line	Dominion	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.1)	(\$0.1)	0	16		