

ARR/FTR as an Offset to Congestion

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The Purpose of the ARR/FTR Design

- The purpose of the ARR/FTR construct is to return congestion to load
- Congestion is the surplus payment by load that results from differences in LMP in a transmission constrained system.
 - Congestion is the surplus after generation is paid and virtuals are settled.
- Congestion is paid by load.

ARR and FTR total congestion offset (in millions) for ARR holders: 2011/2012 through 2020/2021

Planning Period	Revenue									Pre 2017/2018		2017/2018 (With		Post 2017/2018	
	ARR Credits	Unadjusted FTR Credits	Day Ahead Congestion	Balancing + M2M Congestion	Total Congestion	Surplus Revenue Pre 2017/2018	Surplus Revenue 2017/2018	Surplus Revenue Rules	Post 2017/2018 Rules	Total ARR/FTR Offset	Percent Offset	Current Revenue Received	Percent Offset	New Revenue Received	New Offset
	2011/2012	\$512.2	\$310.0	\$1,025.4	(\$275.7)	\$749.7	(\$50.6)	\$35.6	\$113.9	\$771.6	102.9%	\$582.1	77.6%	\$660.4	88.1%
2012/2013	\$349.5	\$268.4	\$904.7	(\$379.9)	\$524.8	(\$94.0)	\$18.4	\$62.1	\$523.9	99.8%	\$256.4	48.9%	\$300.1	57.2%	
2013/2014	\$337.7	\$626.6	\$2,231.3	(\$360.6)	\$1,870.6	(\$139.4)	(\$49.0)	(\$49.0)	\$824.8	44.1%	\$554.6	29.7%	\$554.6	29.7%	
2014/2015	\$482.4	\$348.1	\$1,625.9	(\$268.3)	\$1,357.6	\$36.7	\$111.2	\$400.6	\$867.2	63.9%	\$673.4	49.6%	\$962.8	70.9%	
2015/2016	\$635.3	\$209.2	\$1,098.7	(\$147.6)	\$951.1	\$9.2	\$42.1	\$188.9	\$853.7	89.8%	\$739.0	77.7%	\$885.9	93.1%	
2016/2017	\$640.0	\$149.9	\$885.7	(\$104.8)	\$780.8	\$15.1	\$36.5	\$179.0	\$805.0	103.1%	\$721.6	92.4%	\$864.0	110.7%	
2017/2018	\$427.3	\$212.3	\$1,322.1	(\$129.5)	\$1,192.6	\$52.3	\$80.4	\$370.7	\$692.0	58.0%	\$590.6	49.5%	\$880.9	73.9%	
2018/2019	\$529.1	\$130.1	\$832.7	(\$152.6)	\$680.0	(\$5.8)	\$16.2	\$112.2	\$653.34	96.1%	\$522.7	76.9%	\$618.8	91.0%	
2019/2020	\$542.0	\$91.9	\$612.1	(\$169.4)	\$442.7	(\$1.6)	\$21.6	\$157.8	\$632.3	142.8%	\$486.1	109.8%	\$622.2	140.6%	
2020/2021	\$217.9	\$102.2	\$488.9	(\$103.2)	\$385.7	(\$19.6)	(\$1.8)	(\$1.8)	\$300.49	77.9%	\$215.2	55.8%	\$215.2	55.8%	
Total	\$4,673.5	\$2,448.7	\$11,027.3	(\$2,091.6)	\$8,935.7	(\$197.8)	\$311.1	\$1,534.3	\$6,924.4	77.5%	\$5,341.7	59.8%	\$6,564.9	73.5%	

Zonal ARR and FTR total congestion offset (in millions) for ARR holders: 2020/2021 planning period

Zone	ARR Credits	Adjusted FTR Credits	Balancing+ M2M Charge	Surplus Allocation	Total Offset	Day Ahead Congestion	Balancing Congestion	M2M Payments	Total Congestion	Offset
AECO	\$2.5	\$0.0	(\$1.3)	(\$0.1)	\$1.2	\$4.8	(\$0.9)	(\$0.3)	\$3.6	33.5%
AEP	\$23.5	\$16.5	(\$15.4)	(\$1.7)	\$24.6	\$83.7	(\$10.7)	(\$3.9)	\$69.1	35.6%
APS	\$19.3	\$10.7	(\$5.9)	(\$1.0)	\$24.1	\$31.4	(\$4.2)	(\$1.5)	\$25.8	93.2%
ATSI	\$11.9	\$0.1	(\$8.0)	(\$0.4)	\$4.0	\$37.6	(\$5.7)	(\$2.0)	\$29.8	13.6%
BGE	\$34.3	\$2.0	(\$3.9)	(\$1.2)	\$32.4	\$18.7	(\$2.6)	(\$1.0)	\$15.1	213.9%
ComEd	\$21.3	\$7.7	(\$11.9)	(\$0.9)	\$17.2	\$56.7	(\$8.1)	(\$3.0)	\$45.6	37.7%
DAY	\$3.5	\$0.3	(\$2.1)	(\$0.1)	\$1.7	\$9.0	(\$1.5)	(\$0.5)	\$7.0	24.1%
DEOK	\$14.2	\$1.6	(\$3.3)	(\$0.6)	\$12.5	\$13.3	(\$2.3)	(\$0.8)	\$10.2	122.5%
DLCO	\$3.3	\$0.1	(\$2.3)	(\$0.1)	\$1.1	\$5.9	(\$1.3)	(\$0.6)	\$4.1	27.1%
Dominion	\$4.4	\$49.9	(\$1.7)	(\$1.3)	\$52.7	\$68.0	(\$14.6)	(\$0.4)	\$52.9	99.5%
DPL	\$16.6	\$3.8	(\$13.0)	(\$0.6)	\$7.4	\$25.9	(\$2.0)	(\$3.3)	\$20.6	35.9%
EKPC	\$1.8	\$0.0	(\$1.6)	(\$0.1)	\$0.2	\$6.7	(\$1.1)	(\$0.4)	\$5.2	4.1%
EXT	\$0.3	\$0.0	(\$6.5)	(\$0.0)	(\$6.2)	\$13.7	(\$3.4)	(\$1.6)	\$8.6	(72.4%)
JCPL	\$3.5	\$0.0	(\$2.9)	(\$0.1)	\$0.6	\$11.0	(\$2.0)	(\$0.7)	\$8.2	7.5%
Met-Ed	\$2.0	\$0.4	(\$1.9)	(\$0.1)	\$0.5	\$13.2	(\$2.1)	(\$0.5)	\$10.5	4.4%
OVEC	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.8	(\$0.1)	\$0.0	\$0.7	0.0%
PECO	\$8.8	\$0.2	(\$4.9)	(\$0.3)	\$4.0	\$17.5	(\$3.2)	(\$1.2)	\$13.0	30.7%
PENELEC	\$3.5	\$2.9	(\$2.1)	(\$0.2)	\$4.4	\$12.0	(\$1.6)	(\$0.5)	\$9.8	44.6%
Pepco	\$15.1	\$2.2	(\$3.5)	(\$0.6)	\$13.8	\$15.1	(\$2.4)	(\$0.9)	\$11.8	116.9%
PPL	\$13.6	\$1.8	(\$5.0)	(\$0.5)	\$10.4	\$21.8	(\$3.3)	(\$1.3)	\$17.3	60.5%
PSEG	\$14.3	\$0.0	(\$5.6)	(\$0.5)	\$8.8	\$21.3	(\$3.9)	(\$1.4)	\$16.0	54.8%
RECO	\$0.1	\$0.0	(\$0.2)	(\$0.0)	(\$0.1)	\$0.8	(\$0.2)	(\$0.0)	\$0.6	(11.3%)
Total	\$217.9	\$100.4	(\$103.2)	(\$10.4)	\$215.2	\$488.9	(\$77.3)	(\$25.9)	\$385.7	55.8%

Offset available to load if all ARRs self scheduled: 2016/2017 through 2019/2020 planning periods

	17/18 Planning Period				18/19 Planning Period				19/20 Planning Period			
	SS FTR	Bal+M2M	Congestion+M2M	Offset	SS FTR	Bal+M2M	Congestion+M2M	Offset	SS FTR	Bal+M2M	Congestion+M2M	Offset
AECO	\$1.8	(\$1.6)	\$13.2	1.4%	\$11.5	(\$1.9)	\$9.7	99.3%	\$2.6	(\$2.0)	\$3.7	16.3%
AEP	\$203.3	(\$20.4)	\$189.3	96.6%	\$84.9	(\$23.7)	\$102.0	60.0%	\$62.7	(\$26.2)	\$79.9	45.7%
APS	\$78.7	(\$7.8)	\$57.2	123.9%	\$37.4	(\$9.2)	\$43.0	65.5%	\$31.2	(\$10.1)	\$30.9	68.2%
ATSI	\$54.1	(\$10.6)	\$71.2	61.0%	\$45.3	(\$12.4)	\$50.7	65.0%	\$27.9	(\$13.5)	\$35.8	40.3%
BGE	\$83.1	(\$5.0)	\$42.6	183.3%	\$49.0	(\$5.8)	\$19.2	224.9%	\$53.7	(\$6.4)	\$14.9	316.6%
ComEd	\$110.9	(\$15.4)	\$181.0	52.8%	\$51.4	(\$17.8)	\$95.9	35.1%	\$40.6	(\$19.6)	\$66.9	31.4%
DAY	\$10.5	(\$2.8)	\$21.2	36.7%	\$11.2	(\$3.2)	\$12.2	65.0%	\$5.6	(\$3.5)	\$9.5	21.3%
DEOK	\$72.2	(\$4.3)	\$37.6	180.5%	\$50.4	(\$5.0)	\$22.7	199.9%	\$30.5	(\$5.6)	\$14.5	171.6%
DLCO	\$10.6	(\$2.2)	\$12.2	68.9%	\$7.2	(\$2.5)	\$7.4	63.5%	\$8.1	(\$3.8)	\$5.0	86.2%
Dominion	\$42.4	(\$15.8)	\$133.8	19.9%	\$55.8	(\$18.7)	\$63.5	58.5%	\$32.8	(\$2.8)	\$57.7	52.1%
DPL	\$38.0	(\$2.9)	\$68.6	51.1%	\$57.7	(\$3.4)	\$58.5	92.8%	\$27.3	(\$21.0)	\$17.6	35.9%
EKPC	(\$3.5)	(\$2.1)	\$20.5	-27.2%	\$0.9	(\$2.4)	\$9.0	-16.8%	\$4.1	(\$2.7)	\$7.2	20.3%
EXT	\$3.4	(\$5.2)	\$28.7	-6.3%	\$1.7	(\$7.5)	\$13.6	-42.7%	\$0.9	(\$9.0)	\$7.0	-115.0%
JCPL	\$2.7	(\$3.6)	\$32.1	-2.7%	\$2.6	(\$4.2)	\$19.7	-7.9%	\$2.3	(\$4.6)	\$9.0	-25.3%
Met-Ed	\$7.6	(\$2.5)	\$26.5	19.3%	\$5.0	(\$2.9)	\$14.0	14.9%	\$0.8	(\$3.2)	\$8.6	-27.8%
OVEC	\$0.0	\$0.0	\$0.0	0.0%	\$0.0	\$0.0	\$0.0	0.0%	\$0.0	\$0.0	\$0.3	0.0%
PECO	\$15.7	(\$6.4)	\$57.7	16.2%	\$15.7	(\$7.5)	\$28.7	28.5%	\$16.8	(\$8.1)	\$12.5	68.9%
PENELEC	\$15.4	(\$2.7)	\$30.5	41.7%	\$17.5	(\$3.2)	\$18.3	78.2%	\$11.2	(\$3.5)	\$10.6	72.2%
Pepco	\$38.1	(\$4.8)	\$39.2	84.9%	\$19.5	(\$5.5)	\$17.4	80.3%	\$23.2	(\$6.0)	\$13.3	128.9%
PPL	\$14.7	(\$6.4)	\$65.3	12.7%	\$4.3	(\$7.6)	\$35.3	-9.2%	\$39.2	(\$8.4)	\$19.8	155.7%
PSEG	\$58.6	(\$6.9)	\$62.4	82.9%	\$35.6	(\$8.1)	\$37.5	73.5%	\$21.3	(\$8.9)	\$17.8	69.6%
RECO	(\$0.1)	(\$0)	\$1.9	-17.1%	\$0.2	(\$0.3)	\$1.7	-6.2%	\$0.2	(\$0.3)	\$0.7	-18.0%
Total	\$858.0	(\$129.5)	\$1,192.6	61.1%	\$565.0	(\$152.7)	\$680.2	60.6%	\$443.0	(\$169.4)	\$443.1	61.8%

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