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Monitoring Analytics

Problem Statement/Opportunity Statement

PJM's ARR/FTR Market Construct should be reviewed and changes considered to improve alignment between definition of congestion rights and actual congestion payments.

Problem Statement:

Congestion is defined to be the total congestion payments by load in excess of the total congestion credits received by generation. Congestion rights are the rights to receive congestion. The current ARR/FTR construct creates discrepancies between the definition of congestion rights and the payment of congestion. These discrepancies result in the inability of load to claim rights sufficient to offset their actual congestion costs.

Table 1 shows the congestion offsets paid to load compared to the day-ahead congestion and balancing congestion paid by load in each zone, plus the allocation of M2M charges.[1] The total offset available to load, which is the revenue load receives to offset their congestion charges, is the sum of all of those credits and charges.

The zonal offset percentage shown in Table 0-1 is the sum of the congestion related revenues (offset) paid to load in each zone divided by the total congestion payment made by load in each zone.

[1] See *2018 State of the Market Report* for PJM, Volume 2, Section 11: Congestion and Marginal Losses

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Table 1 Zonal ARR and FTR total congestion offset (in millions) for ARR holders: 2018/2019 planning period

Zone	ARR Credits	FTR Credits	Balancing+ M2M Charge	Surplus Allocation	Total Offset	Day Ahead Congestion	Balancing Congestion	M2M Payments	Total Congestion	Offset
AECO	$4.9	$0.0	($1.9)	$0.8	$3.0	$11.9	($1.5)	($0.4)	$10.0	30.2%
AEP	$56.8	$38.9	($23.7)	$21.8	$93.8	$129.6	($18.9)	($5.1)	$105.7	88.7%
APS	$40.8	$10.4	($9.2)	$8.9	$50.9	$53.7	($6.9)	($2.0)	$44.8	113.6%
ATSI	$43.3	$0.3	($12.4)	$6.7	$37.9	$64.8	($9.7)	($2.6)	$52.5	72.3%
BGE	$67.2	$1.5	($5.8)	$10.7	$73.6	$26.1	($4.8)	($1.2)	$20.0	367.3%
ComEd	$91.7	$10.2	($17.8)	$17.3	$101.3	$113.0	($12.7)	($3.8)	$96.5	105.0%
DAY	$39.3	$0.5	($3.2)	$1.1	$37.6	$16.1	($2.6)	($0.7)	$12.8	293.5%
DEOK	$7.2	$9.1	($5.0)	$7.7	$19.0	$28.9	($4.1)	($1.1)	$23.7	80.4%
Dominion	$41.5	$44.3	($18.7)	$9.4	$76.6	$10.2	($1.9)	($4.0)	$4.3	1798.6%
DPL	$7.1	$8.2	($3.4)	$7.0	$18.9	$84.4	($14.2)	($0.7)	$69.5	27.2%
DLCO	$9.1	$0.0	($2.5)	$1.4	$8.0	$63.0	($3.3)	($0.5)	$59.2	13.6%
EKPC	$0.0	$0.0	($2.4)	$0.0	($2.3)	$11.8	($1.7)	($0.5)	$9.5	(24.1%)
EXT	$3.4	$0.0	$0.0	$0.5	$3.9	$0.7	($4.8)	$0.0	($4.1)	(95.4%)
JCPL	$2.5	$0.0	($4.2)	$0.4	($1.3)	$24.6	($3.3)	($0.9)	$20.4	(6.2%)
Met-Ed	$7.9	$0.4	($2.9)	$1.3	$6.6	$17.9	($2.6)	($0.6)	$14.6	45.2%
PECO	$21.2	$0.2	($7.5)	$3.3	$17.2	$37.3	($5.7)	($1.6)	$30.0	57.3%
Penelec	$10.9	$4.0	($3.2)	$2.0	$13.7	$21.7	($3.4)	($0.7)	$17.6	77.7%
Pepco	$28.9	$2.0	($5.5)	$5.0	$30.3	$23.6	($4.2)	($1.2)	$18.2	166.3%
PPL	$4.4	$0.0	($7.6)	$0.7	($2.4)	$44.2	($5.9)	($1.6)	$36.7	(6.7%)
PSEG	$40.9	$0.0	($8.1)	$6.3	$39.2	$47.3	($7.0)	($1.7)	$38.6	101.5%
RECO	$0.1	$0.0	($0.3)	$0.0	($0.2)	$2.0	($0.9)	($0.1)	$1.1	(19.0%)
Total	$529.0	$130.1	($145.2)	$112.3	$625.4	$832.7	($120.0)	($31.1)	$681.6	91.8%

While the total congestion offset paid to loads was 91.8 percent of congestion, the results vary significantly by zone. Loads in some zones receive substantially more in offsets than their total congestion payments. Loads in other zones receive substantially less in offsets than their total congestion payments. The offsets are a function of the assignment of ARRs and the valuation of ARRs in the FTR auctions.

If ARRs were assigned based on actual zonal congestion, the zonal offsets to load would equal zonal congestion payments by load.

The current ARR/FTR design does not serve as an efficient mechanism for returning congestion to load.

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