

Portfolio Netting in PJM: Examples

FTR Technical
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Example 1: Only Positive and Negative Target Allocations

Example with Portfolio Netting			
	Final Payout = 70.0%		
	Participant X	Participant Y	Available Revenue
Congestion Collected	-	-	\$137
Positive Target Allocations	\$210	\$0	\$0
Negative Target Allocations	\$0	-\$10	-\$10
Net	\$210	-\$10	\$147
Total Payout with Netting	\$147	-\$10	-
Example without Portfolio Netting			
	Final Payout = 70.0%		
Congestion Collected	-	-	\$137
Positive Target Allocations	\$210	\$0	\$0
Negative Target Allocations	\$0	-\$10	-\$10
Net	\$210	-\$10	\$147
Total Payout without Netting	\$147	-\$10	-
With/Without Netting Difference	\$0.00	\$0.00	-



Example 2: Incremental FTRs Step 1

Example with Portfolio Netting			
	Payout = 70.0%		
	Participant X	Participant Y	Available Revenue
Congestion Collected	-	-	\$14
Positive Target Allocations	\$10	\$10	\$0
Negative Target Allocations	\$0	\$0	\$0
Net	\$10	\$10	\$14
Total Payout with Netting	\$7	\$7	-
Example without Portfolio Netting			
	Payout = 70.0%		
Congestion Collected	-	-	\$14
Positive Target Allocations	\$10	\$10	\$0
Negative Target Allocations	\$0	\$0	\$0
Net	\$10	\$10	\$14
Total Payout without Netting	\$7	\$7	-
With/Without Netting Difference	\$0.00	\$0.00	-



Example 3: Incremental FTRs Step 2

Example with Portfolio Netting			
	Payout = 70.0%		
	Participant X	Participant Y	Available Revenue
Congestion Collected	-	-	\$14
Positive Target Allocations	\$15	\$10	\$0
Negative Target Allocations	\$0	-\$5	\$0
Net	\$15	\$5	\$14
Total Payout with Netting	\$10.50	\$3.50	-
Example without Portfolio Netting			
	Payout = 76.0%		
Congestion Collected	-	-	\$14
Positive Target Allocations	\$15	\$10	\$0
Negative Target Allocations	\$0	-\$5	-\$5
Net	\$15	\$5	\$19
Total Payout without Netting	\$11.40	\$2.60	-
With/Without Netting Difference	\$0.90	-\$0.90	-



Effective Payout Ratio for Positive Target Allocations

	1	2	3	4	5	6	7	8	9	10
	Congestion = \$4,750 Net TA = \$9,500				With Netting			Without Netting		
Participant	Positive Target Allocations	Negative Target Allocations	Net Target Allocations	Reported Payout Ratio	Congestion Revenue Received	Revenue to Positive TA	Calculated Positive TA Payout Ratio	Congestion Revenue Received	Revenue to Positive TA	Calculated Positive TA Payout Ratio
1	\$1,000.00	(\$750.00)	\$250.00	50.0%	\$125.00	\$875.00	87.5%	(\$204.55)	\$545.45	54.5%
2	\$750.00	(\$200.00)	\$550.00	50.0%	\$275.00	\$475.00	63.3%	\$209.09	\$409.09	54.5%
3	\$8,700.00	\$0.00	\$8,700.00	50.0%	\$4,350.00	\$4,350.00	50.0%	\$4,745.45	\$4,745.45	54.5%
Total	\$10,450.00	(\$950.00)	\$9,500.00	-	\$4,750.00	\$5,700.00	-	\$4,750.00	\$5,700.00	-

- Revenue to Positive TA = Congestion Revenue Received – Negative Target Allocations
- Calculated Positive TA Payout Ratio=Revenue to Positive TA/Positive Target Allocations



Subsidy to Negative Target Allocation Holders

PR Net = 70.0%; PR No Net = 77.5%	With Netting	Without Netting
Congestion Revenue	\$10.50	\$10.50
Positive TA	\$20.00	\$20.00
Negative TA	-\$5.00	-\$5.00
Net TA	\$15.00	\$15.00
Total Payout	\$10.50	\$10.50
Expected Payment for Positive TA	\$14.00	\$15.50
Subsidy Amount	\$1.50	\$0.00
Negative Payout Ratio	70.0%	100.0%

With Netting

Total Payout = $\$15 * 0.7 = \10.50

Payment for Positive TA = $\$20 * 0.7 = \14

Subsidy Amount = $\$10.50 - (\$14 + (-\$5)) = \1.50

Negative Payout Ratio = $1 + (\$1.50 / -\$5) = 0.7$

Without Netting

Total Payout = $(\$20 * 0.775) + (-\$5) = \$10.50$

Payment for Positive TA = $\$20 * 0.775 = \15.50

Subsidy Amount = $\$10.50 - (\$15.50 + (-\$5)) = 0$

Negative Payout Ratio = $1 + (\$0 / -\$5) = 1.0$



Impacts of FTR Portfolio Netting

	Net Positive Target Allocations	Net Negative Target Allocations	Positive Target Allocations	Negative Target Allocations	Total Congestion Revenue	Payout Ratio (Current)	No Netting Payout Ratio (Proposed)
2012/2013 Total	\$992,878,752	(\$86,061,137)	\$1,897,830,880	(\$990,471,801)	\$614,014,377	70.5%	84.5%
2013/2014 Total	\$2,625,369,880	(\$126,385,125)	\$5,442,171,151	(\$2,942,754,444)	\$1,819,508,754	74.1%	87.5%

- Summary of 2012/2013 and 2013/2014 planning periods with and without portfolio netting
- Properly accounting for negative target allocations as a source of revenue increases payout ratio to positive target allocations
- Impacts of \$905.0 million for 12/13 and \$2,816.8 million for 13/14 planning periods



Mathematically Equivalent FTR Positions

FTR Path(s)	Net TA	Positive TA	Negative TA	Netting Revenue Received	No Netting Revenue Received (Joint Protesters)	Payout Ratio No Netting	Correct No Netting Revenue Received
A-B	\$5.00	\$5.00	\$0.00	\$3.60	\$3.60	72.0%	\$3.60
A-C, C-B	\$5.00	\$20.00	-\$15.00	\$3.60	-\$0.60	93.0%	\$3.60
A-C, C-E, E-D, D-B	\$5.00	\$110.00	-\$105.00	\$3.60	-\$25.80	98.7%	\$3.60

- Three distinct scenarios representing varying ways to hold the same net FTR position
- Congestion collected is \$3.60 for each distinct scenario
- Properly calculating the revenue received to the participant results in equivalent revenue received with and without portfolio netting when holding congestion collected at \$3.60.



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