

Selected MMU Market Issues

Members Committee
Webinar
February 25, 2013

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Monitoring Analytics

FTR Target Allocation Netting

- **FTR target allocations are calculated on a net basis by owner by hour**
- **Payout ratios and amounts are based on the net target allocation for a participant**
- **Netting target allocations is not an efficient way to calculate payouts to FTR holders**
- **Calculating positive and negative FTR target allocations separately would be more efficient**
 - **Within and across owners**
- **FTR payout ratio is not reported correctly**



FTR Target Allocation Netting Example

Owner	TA
1	\$60.00
1	(\$40.00)
2	\$30.00
3	\$40.00
3	(\$20.00)
3	\$50.00
4	(\$5.00)
Total	\$115.00



Owner	Net		Per FTR	
	Net TA	Positive TA	Negative TA	
1	\$20.00	\$60.00	(\$40.00)	
2	\$30.00	\$30.00	\$0.00	
3	\$70.00	\$90.00	(\$20.00)	
4	(\$5.00)	\$0.00	(\$5.00)	
Total	\$115.00	\$180.00	(\$65.00)	

Positive TA Payout	
Reported	39.1%
Current Actual	41.7%
Per FTR Actual	61.1%

Congestion	Current Available	Per FTR Available
\$45.00	\$50.00	\$110.00

Current Available = Congestion - Negative TA(Net) = \$45 - (-\$5) = \$50

Per FTR Available = Congestion - Negative TA(Per FTR) = \$45 - (-\$65) = \$110

Reported = Congestion/Net TA = \$45/\$115 = 39.1%

Current Actual = Current Available/Net Positive TA = \$50/\$120 = 41.7%

Per FTR Actual = Per FTR Available/Per FTR Positive TA = \$110/\$180 = 61.1%

FTR Target Allocation Payouts

Owner	TA
1	\$60.00
1	(\$40.00)
2	\$30.00
3	\$40.00
3	(\$20.00)
3	\$50.00
4	(\$5.00)
Total	\$115.00

Owner	Net Positive TA	Reported	Actual
1	\$20.00	\$7.83	\$8.33
2	\$30.00	\$11.74	\$12.50
3	\$70.00	\$27.39	\$29.17
4	\$0.00	(\$5.00)	(\$5.00)
Total	\$120.00	\$41.96	\$45.00

Owner	Positive TA	Negative TA	Payment	Net Payment
1	\$60.00	(\$40.00)	\$36.67	(\$3.33)
2	\$30.00	\$0.00	\$18.33	\$18.33
3	\$90.00	(\$20.00)	\$55.00	\$35.00
4	\$0.00	(\$5.00)	\$0.00	(\$5.00)
Total	\$180.00	(\$65.00)	\$110.00	\$45.00

Alternative: Payout by FTR

- **Current method treats an FTR differently depending on whether a participant owns multiple FTRs**
- **Implementing payout on an FTR by FTR basis would reduce socialization of FTR funding while decreasing positive target allocation underfunding**
- **The result would be:**
 - **No net revenue change**
 - **Payment shift among FTR holders based on positive and negative positions**



Negative Target Allocation Counter Flow FTRs

- If the Total Transmission Congestion Charge is a positive value that is less than the total positive FTR Target Allocation for the hour, then the Transmission Congestion Credit for each market participant is equal to that market participant's FTR Target Allocation multiplied by the Total Transmission Congestion Charge and divided by the Total PJM positive FTR Target Allocations if the market participant's FTR Target Allocation is a positive value, and is ***equal to 100% of the market participant's FTR Target Allocation if the market participant's FTR Target Allocation is a negative value.*** Each market participant's hourly Congestion Credit Deficiency is calculated as its FTR Target Allocation minus its hourly Transmission Congestion Credit.

-Manual 28 Section 8.4.3; p51



Negative Target Allocation Counter Flow Example

		Current Method					
		FTR	FTR	CF FTR	CF FTR	CF FTR	
Payout Ratio = 80%	Transaction	Even	Loss	Gain	Loss	Even	
Price paid for FTR	Auction	\$ 100	\$ 100	\$ (100)	\$ (100)	\$ (100)	
CLMP differences	Target Allocation	\$ 100	\$ (20)	\$ 20	\$ (20)	\$ (100)	
TA * Payout Ratio	Underfunded TA	\$ 80	\$ (20)	\$ 16	\$ (20)	\$ (100)	
Profit	Total	\$ (20)	\$(120)	\$ 116	\$ 80	\$ -	

		Adjusted Counterflows					
		FTR	FTR	CF FTR	CF FTR	CF FTR	
	Transaction	Even	Loss	Gain	Loss	Even	
Price paid for FTR	Auction	\$ 100	\$ 100	\$ (100)	\$ (100)	\$ (100)	
CLMP differences	Target Allocation	\$ 100	\$ (20)	\$ 20	\$ (20)	\$ (100)	
TA * Payout Ratio	Underfunded TA	\$ 80	\$ (20)	\$ 16	\$ (24)	\$ (120)	
Profit	Total	\$ (20)	\$(120)	\$ 116	\$ 76	\$ (20)	

Counter Flow Adjustment Example

Congestion = \$40	Current Reported	Current Paid	Proposed Paid
Positive Target Allocations	\$100	\$90	\$93
Negative prevailing flow TA	(\$10)	(\$10)	(\$10)
Negative counter flow TA	(\$40)	(\$40)	(\$43)
Total TA	\$50	\$40	\$40
Payout Ratio	80.00%	90.00%	92.85%

Reported = Congestion Collected / Total TA (Initial) = \$40/\$50

Positive TA Current = (Congestion Collected + All Negative TA) / Positive TAs =
 $(\$40 + \$10 + \$40) / \100

Adjusted Payout = (Congestion Collected + Negative Prevailing TA + (Negative Counter TA * Adjustment)) / Positive Target Allocation = $((40 + 10 + 43) / \$100$

Counter Flow Adjustment Impact: October 2012

	Available Funding
Collected Congestion	\$ 24,879,206
Collected Congestion + Negative TA Current	\$ 104,333,962
Collected Congestion + Negative TA Adjusted	\$ 114,008,068

	Initial TA	Current Method	Adjusted Method
Positive Target Allocations	\$ 137,698,279	\$ 104,333,962	\$ 114,008,061
Negative TA from prevailing flow	\$ (23,224,469)	\$ (23,224,469)	\$ (23,224,469)
Negative TA from counter flow	\$ (56,230,287)	\$ (56,230,287)	\$ (65,904,393)
Total	\$ 58,243,523	\$ 24,879,206	\$ 24,879,199
Positive TA payout ratio	-	75.77%	82.80%

Counter Flow Adjustment Summary

- **Currently, FTR target allocations are netted by participant in each hour**
- **To properly apply the counter flow adjustment, calculating FTR target allocations on an FTR by FTR basis would be necessary**
- **Requiring counter flow FTR holders to pay more for negative target allocations balances risk between counter flow and prevailing flow FTR holders**
- **This would increase revenue available to fund FTRs and lower underfunding while creating symmetric products**



Flowgate Contribution to Underfunding: June 2012

Flowgate	Day-Ahead Congestion	Balancing Congestion	Total Congestion	Target Allocation	Congestion FTR Funding	M2M Payment	Controlling RTO	Flowgate FTR Funding
Beaver Channel - Albany	\$3,719,781	(\$2,304,147)	\$1,415,634	\$3,942,044	(\$2,526,411)	\$0.00	MISO	(\$2,526,411)
Oak Grove - Galesburg	\$1,441,660	(\$1,559,636)	(\$117,976)	\$1,545,785	(\$1,663,761)	(\$576,853.01)	MISO	(\$2,240,614)
Cumberland - Bush	\$1,794,726	(\$1,622,549)	\$172,177	\$1,015,615	(\$843,438)	\$91,383.31	MISO	(\$752,054)
Monticello - East Winamac	\$5,154,119	(\$1,862,599)	\$3,291,520	\$4,061,919	(\$770,399)	(\$1,231,707.92)	MISO	(\$2,002,107)
Michigan City - Laporte	\$609,370	(\$478,203)	\$131,167	\$507,691	(\$376,524)	(\$498,143.35)	MISO	(\$874,667)
Bush - Lafayette	\$0	(\$358,140)	(\$358,140)	\$0	(\$358,140)	\$0.00	MISO	(\$358,140)
Kenosha - Lakeview	\$337,744	(\$518,728)	(\$180,984)	\$58,797	(\$239,781)	(\$144,355.33)	MISO	(\$384,137)
Breed - Wheatland	\$631,575	(\$122,680)	\$508,895	\$651,234	(\$142,339)	(\$149,305.42)	MISO	(\$291,644)
Palisades - Roosevelt	\$611,314	(\$145,055)	\$466,259	\$576,083	(\$109,824)	\$104,850.57	MISO	(\$4,973)
W Lafayette - Cumberland	\$0	(\$36,615)	(\$36,615)	\$0	(\$36,615)	\$74,682.15	MISO	\$38,067
Burr Oak	\$0	(\$34,071)	(\$34,071)	\$0	(\$34,071)	(\$153,168.15)	MISO	(\$187,239)
Batesville - Hubble	\$0	(\$29,444)	(\$29,444)	\$0	(\$29,444)	(\$72,143.29)	MISO	(\$101,587)
Holland - Neoga	\$0	(\$26,659)	(\$26,659)	\$0	(\$26,659)	\$90,679.49	MISO	\$64,021
Rising	\$0	(\$23,463)	(\$23,463)	\$0	(\$23,463)	(\$37,431.73)	MISO	(\$60,894)
Rantoul - Rantoul Jct	\$8,808	(\$5,019)	\$3,789	\$12,839	(\$9,050)	(\$16,698.44)	MISO	(\$25,749)
Lanesville	\$0	(\$2,767)	(\$2,767)	\$0	(\$2,767)	\$67.88	MISO	(\$2,699)
Bunsonville - Eugene	\$51,114	\$0	\$51,114	\$52,677	(\$1,563)	\$0.00	MISO	(\$1,563)
Cayuga - Cayuga	\$0	(\$857)	(\$857)	\$0	(\$857)	(\$7,662.60)	MISO	(\$8,520)
Lakeview - Zion	\$0	(\$689)	(\$689)	\$0	(\$689)	(\$1,638.37)	MISO	(\$2,327)
Baldwin-Mt Vernon	\$0	(\$650)	(\$650)	\$0	(\$650)	\$0.00	MISO	(\$650)
Crete - St Johns Tap	\$0	(\$386)	(\$386)	\$0	(\$386)	\$0.00	PJM	(\$386)
Prairie State - W Mt. Vernon	\$36,560	(\$14,506)	\$22,054	\$20,741	\$1,313	\$25,681.73	MISO	\$26,995
Benton Harbor - Palisades	\$27,454	\$1,251	\$28,705	\$16,322	\$12,383	\$0.00	MISO	\$12,383
State Line - Wolf Lake	\$26,429	\$0	\$26,429	\$11,463	\$14,966	\$0.00	PJM	\$14,966
Marktown - Inland Steel	\$0	\$16,504	\$16,504	\$0	\$16,504	\$105,196.79	MISO	\$121,700
Sheffield - Marktown	\$25,470	(\$1,644)	\$23,826	\$5,099	\$18,727	(\$11,943.68)	MISO	\$6,783
Miami Fort - Hebron	\$297,612	\$28,534	\$326,146	\$246,715	\$79,431	(\$11,044.73)	MISO	\$68,386
State Line - Roxana	\$232,056	\$0	\$232,056	\$93,028	\$139,028	\$0.00	PJM	\$139,028
Roxana - Praxair	\$408,035	\$0	\$408,035	\$85,218	\$322,817	\$0.00	MISO	\$322,817
Total	\$ 15,413,828	\$ (9,102,216)	\$ 6,311,611	\$ 12,903,271	\$ (6,591,659)	\$ (2,419,554)		\$ (9,011,213)

High Balancing Operating Reserve Rates

- **On December 18, 2012, the east deviation rate reached its highest level ever at \$5.74 per MWh.**
- **Since then the highest east deviation rate has increased eight times.**
 - **On January 19, 2013, the rate was \$12.44 per MWh.**
 - **On January 24, 2013, the rate was \$17.05 per MWh.**
 - **On February 3, 2013, the rate was \$19.56 per MWh.**
 - **On February 9, 2013, the rate was \$32.77 per MWh.**

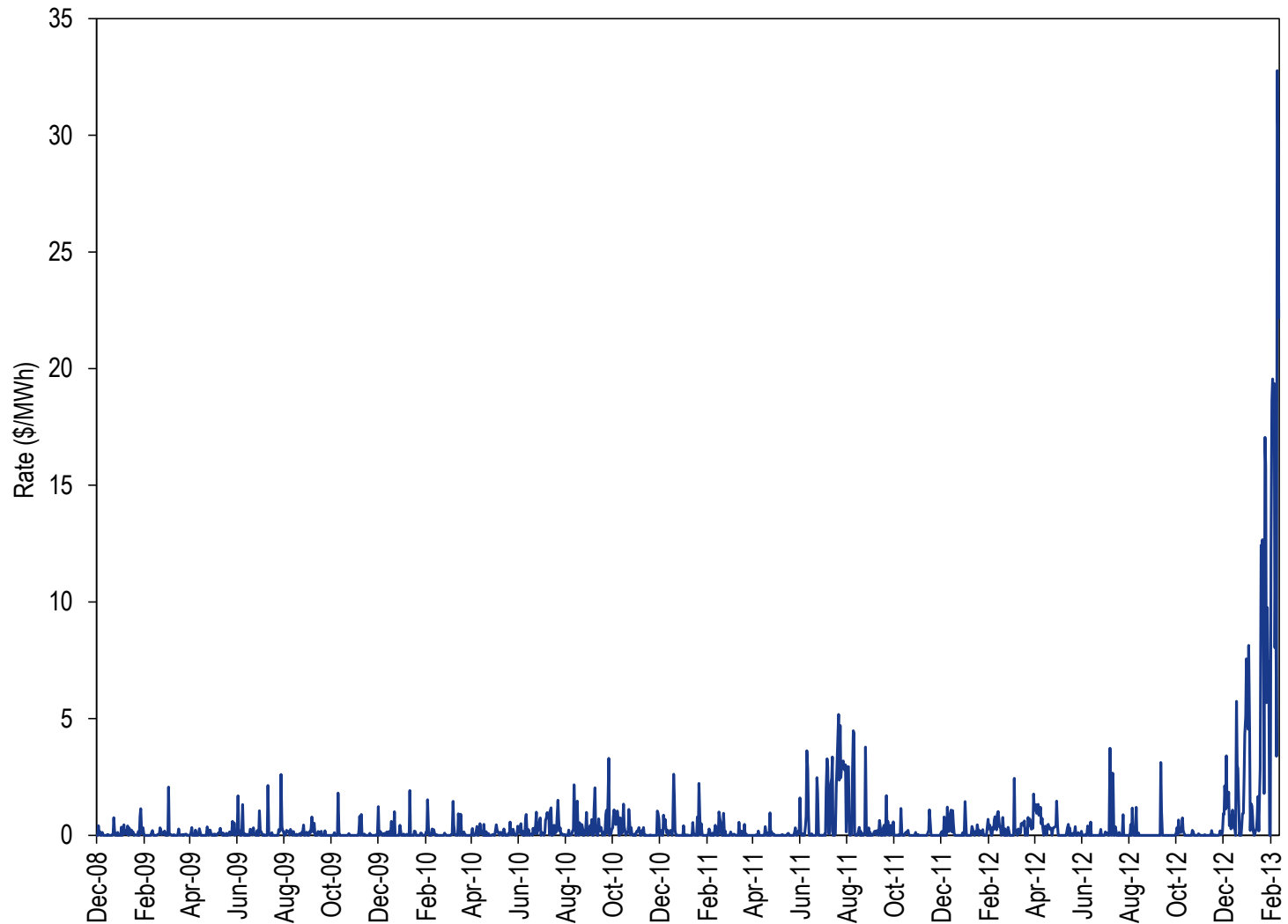


High Balancing Operating Reserve Rates

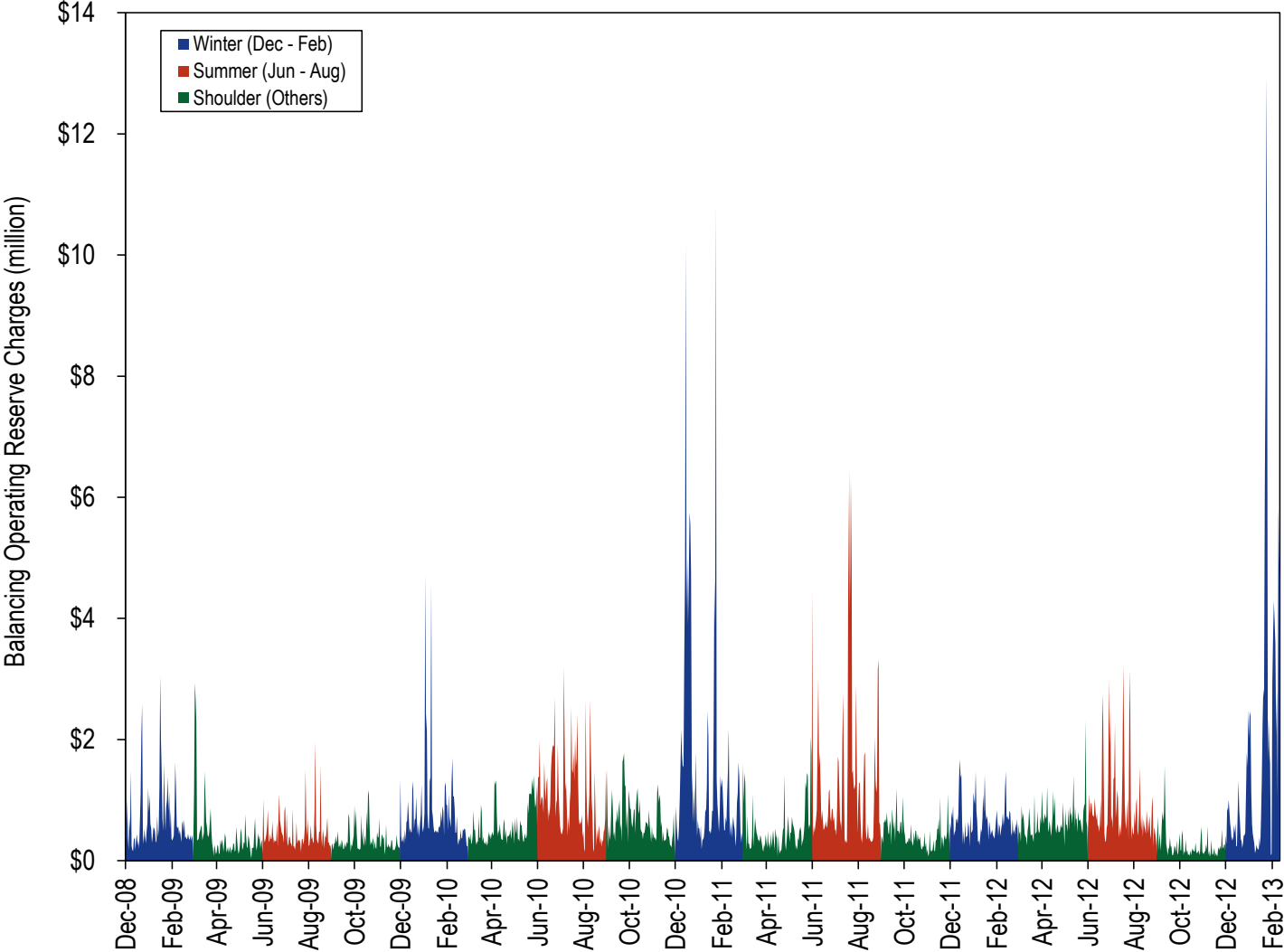
- **Causes:**
 - **Constraints in north/central New Jersey.**
 - **Cold weather.**
 - **High natural gas prices.**
 - **Switch to oil due to natural gas supply limitations.**
- **As of February 7, Balancing Operating Reserve Charges are \$65.5 million or 274.9 percent higher in comparison with the same period last year.**
 - **This does not include charges due to lost opportunity costs.**



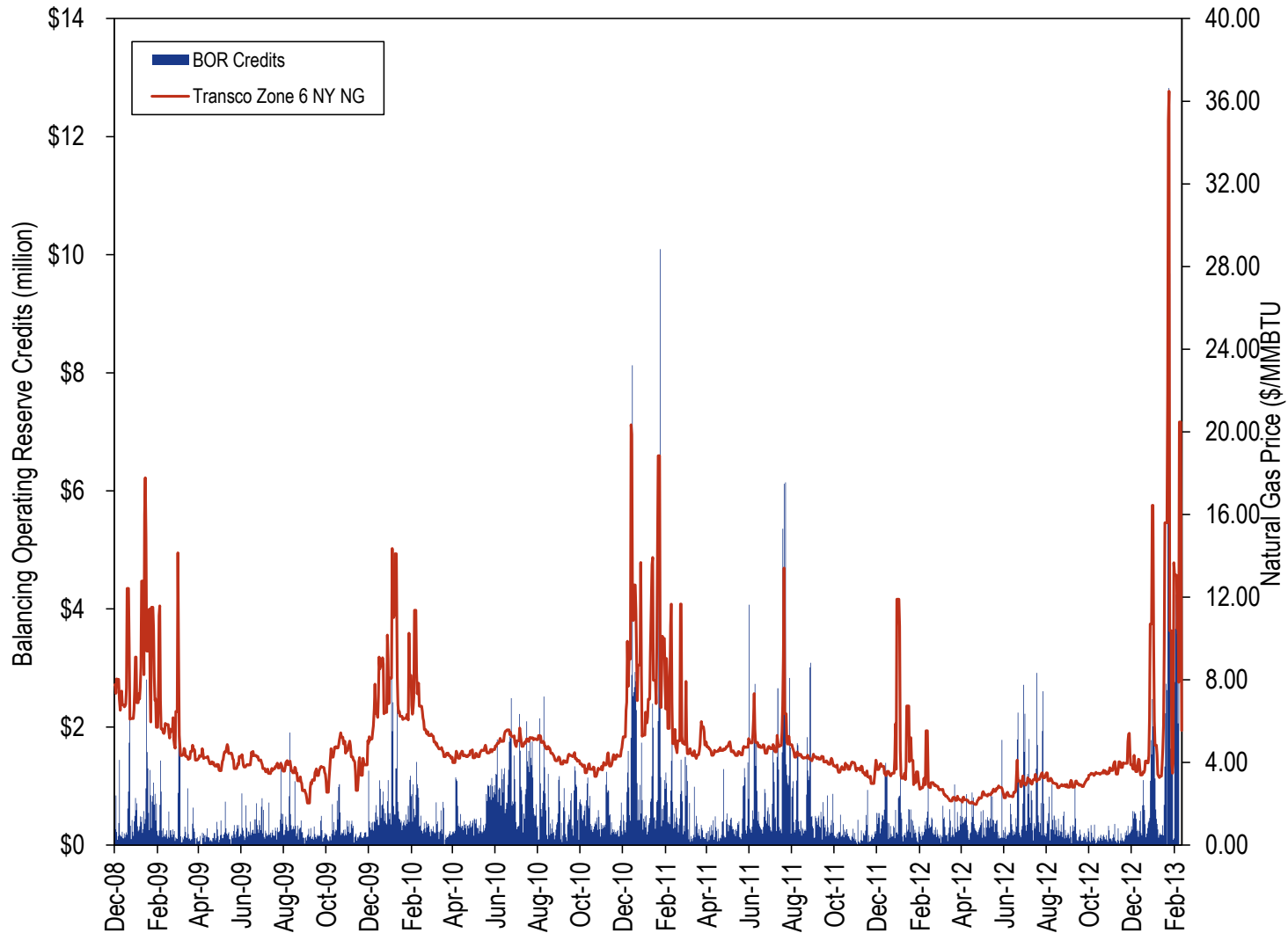
East Deviation Rate (Dec 2008 – Feb 2013)



Total BOR Charges (Dec 2008 – Feb 2013)



BOR Credits to Units in Eastern Region



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