

Simulation Results from Sandbox Testing of MIO Pricing - 1

\$/MWh

Date	12X Ramp MCP	MIO Incremental	MIO HSP	MIO MHSP#1	MIO MHSP#2	Modified MIO Incremental
Dec. 11/04	39.95	39.39	40.93	40.54	39.96	39.71
Dec. 12/04*	55.68	56.60	56.23	58.19	57.40	57.05
Dec. 13/04	57.22	58.55	58.95	59.87	59.21	59.00
Feb. 5/05*	45.00	47.90	51.61	49.19	48.58	48.19
Feb. 6/05*	42.86	43.09	45.36	43.91	43.50	43.62
Feb. 7/05	46.07	45.79	47.41	46.58	46.19	46.19
Mar. 11/05	72.16	72.18	73.46	72.93	72.56	72.39
Mar. 12/05*	67.10	66.27	66.86	66.61	66.44	66.30
Mar. 13/05*	47.00	46.43	48.11	47.37	46.90	46.90
Mar. 14/05	60.17	55.23	57.97	56.58	55.90	55.75
Mar. 15/05	54.66	52.79	54.16	53.67	53.23	53.27
Mar. 16/05*^	55.98	55.50	56.96	57.00	56.25	56.13

* Results were adjusted for large demand differences
 ^ Results were adjusted for tool problems

%

Date	MIO Incremental	MIO HSP	MIO MHSP#1	MIO MHSP#2	Modified MIO Incremental
Dec. 11/04	-1.40	2.44	1.48	0.02	-0.60
Dec. 12/04	1.65	0.99	4.51	3.09	2.46
Dec. 13/04	2.32	3.01	4.63	3.48	3.11
Feb. 5/05	6.44	14.68	9.31	7.96	7.09
Feb. 6/05	0.54	5.83	2.45	1.49	1.77
Feb. 7/05	-0.61	2.91	1.12	0.25	0.26
Mar. 11/05	0.03	1.80	1.07	0.55	0.32
Mar. 12/05	-1.24	-0.36	-0.73	-0.98	-1.19
Mar. 13/05	-1.21	2.36	0.79	-0.21	-0.21
Mar. 14/05	-8.21	-3.66	-5.97	-7.10	-7.35
Mar. 15/05	-3.42	-0.91	-1.81	-2.62	-2.54
Mar. 16/05	-0.86	1.75	1.82	0.48	0.27
Average All days	-0.50	2.57	1.57	0.53	0.28
Average Excluding Feb.5/05	-1.13	1.47	0.85	-0.13	-0.34

Simulation Results from Sandbox Testing of MIO Pricing - 2

Simulated Days: Dec. 11-13, 2004; Feb. 5-7, 2005; Mar. 11-16, 2005

Hourly Average MIO Prices Using Varied Algorithms:

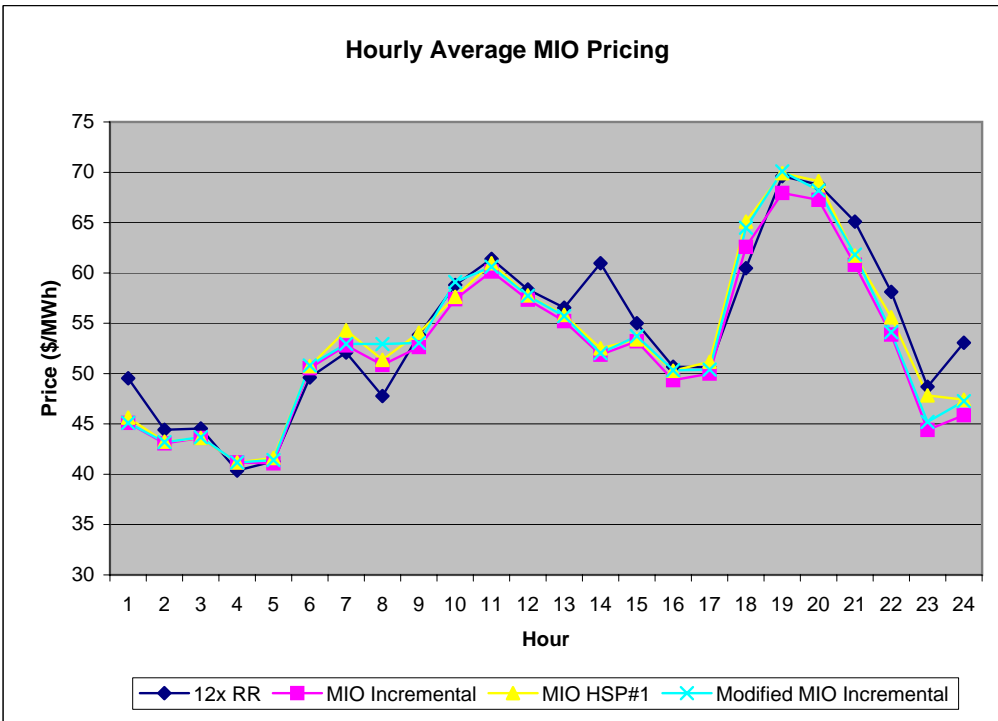
\$/MWh

Hour	12x RR	MIO Incremental	MIO HSP#1	Modified MIO Incremental
1	49.54	45.10	45.62	45.10
2	44.42	43.06	43.24	43.19
3	44.54	43.60	43.60	43.66
4	40.36	41.17	41.17	41.17
5	41.28	41.08	41.62	41.41
6	49.61	50.54	50.74	50.81
7	52.09	52.80	54.31	52.96
8	47.77	50.85	51.37	52.94
9	53.84	52.63	54.07	53.05
10	58.81	57.39	57.62	59.11
11	61.39	60.13	60.97	60.61
12	58.36	57.34	57.78	57.74
13	56.54	55.21	55.84	55.70
14	60.96	51.86	52.50	52.03
15	55.00	53.20	53.40	53.71
16	50.68	49.34	50.28	50.34
17	50.63	50.00	51.17	50.39
18	60.47	62.58	65.10	64.50
19	69.61	67.94	69.91	70.08
20	68.77	67.25	69.12	68.19
21	65.09	60.81	61.73	61.83
22	58.13	53.87	55.59	54.11
23	48.69	44.40	47.83	45.20
24	53.07	45.86	47.40	47.27

Hourly Average Increase From 12x RR Price:

%

Hour	MIO Incremental	MIO HSP#1	Modified MIO Incremental
1	-8.95	-7.90	-8.95
2	-3.07	-2.66	-2.77
3	-2.12	-2.12	-1.98
4	2.00	2.01	2.00
5	-0.49	0.82	0.30
6	1.88	2.27	2.42
7	1.35	4.26	1.66
8	6.45	7.54	10.84
9	-2.25	0.43	-1.47
10	-2.41	-2.01	0.51
11	-2.05	-0.69	-1.28
12	-1.75	-1.01	-1.07
13	-2.36	-1.25	-1.49
14	-14.92	-13.87	-14.65
15	-3.26	-2.90	-2.33
16	-2.63	-0.79	-0.67
17	-1.25	1.07	-0.46
18	3.50	7.67	6.67
19	-2.40	0.43	0.68
20	-2.21	0.50	-0.84
21	-6.58	-5.17	-5.01
22	-7.32	-4.36	-6.90
23	-8.81	-1.76	-7.17
24	-13.58	-10.68	-10.93



Simulation of Prices Using Different Ramp Rates (no MIO)

\$/MWh

<u>Ramp Rate</u>	<u>All Hours</u>	<u>% Increase from 12x</u>	<u>On Peak</u>	<u>% Increase from 12x</u>	<u>Off Peak</u>	<u>% Increase from 12x</u>
1	86.00	14.53	110.03	9.35	67.86	21.57
3	78.12	4.04	103.54	2.90	58.94	5.59
6	75.97	1.18	101.53	0.90	56.69	1.56
9	75.37	0.37	100.89	0.27	56.10	0.50
12	75.09		100.62		55.82	

Actuals 75.92 101.37 56.71

Averages for October 2005

