

NYISO Market Operations Report

Business Issues Committee Meeting

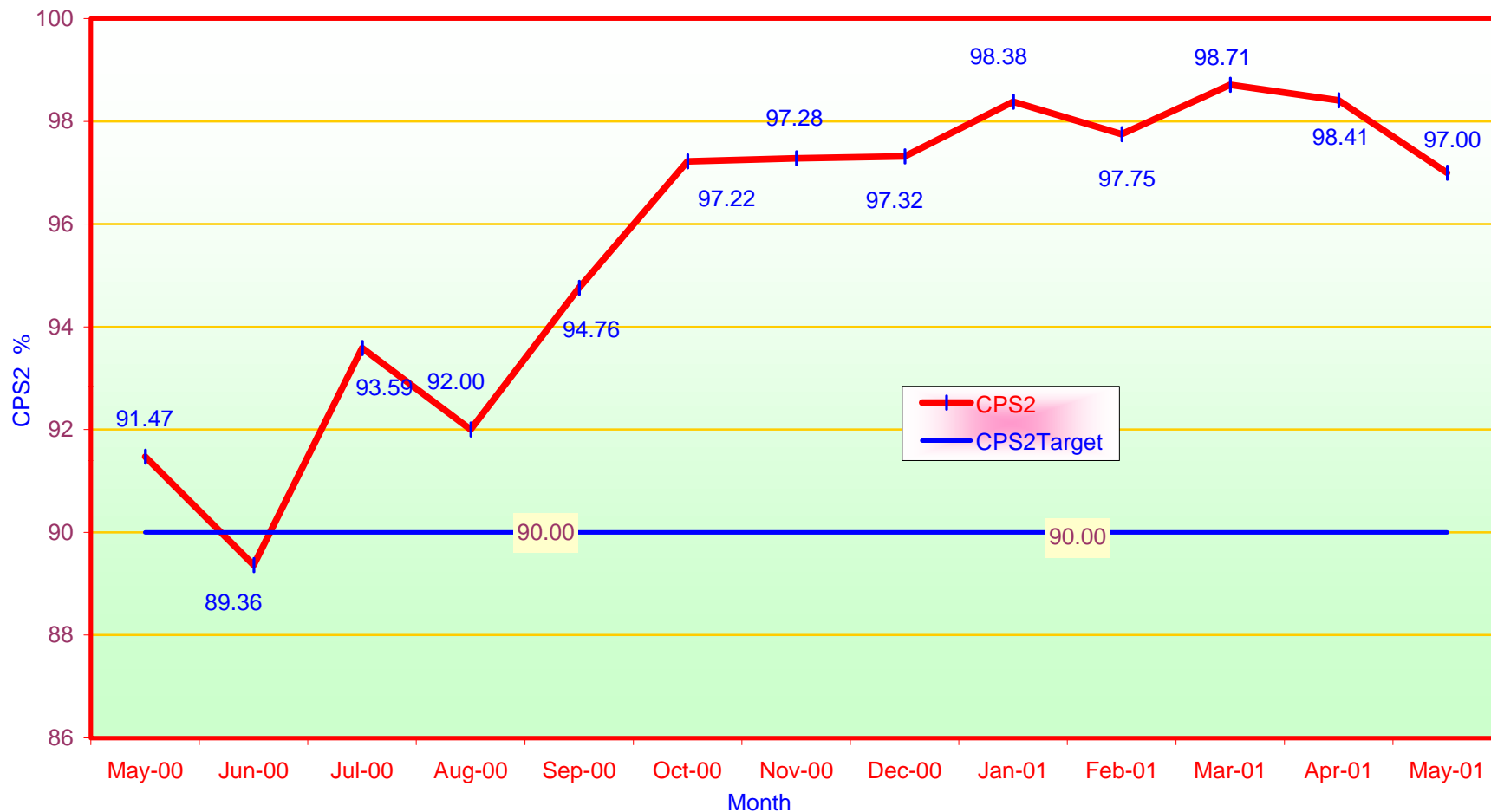
June 21, 2001

Kathy Whitaker, Manager Customer Relations

Market Operations Report

- 1) Reliability Indicators
 - *NERC Criteria (CPS-2 Curve)*
- 2) Market Performance Highlights
- 3) Summer Capacity Status
- 4) Summer Preparations Schedule
- 5) MOU Status

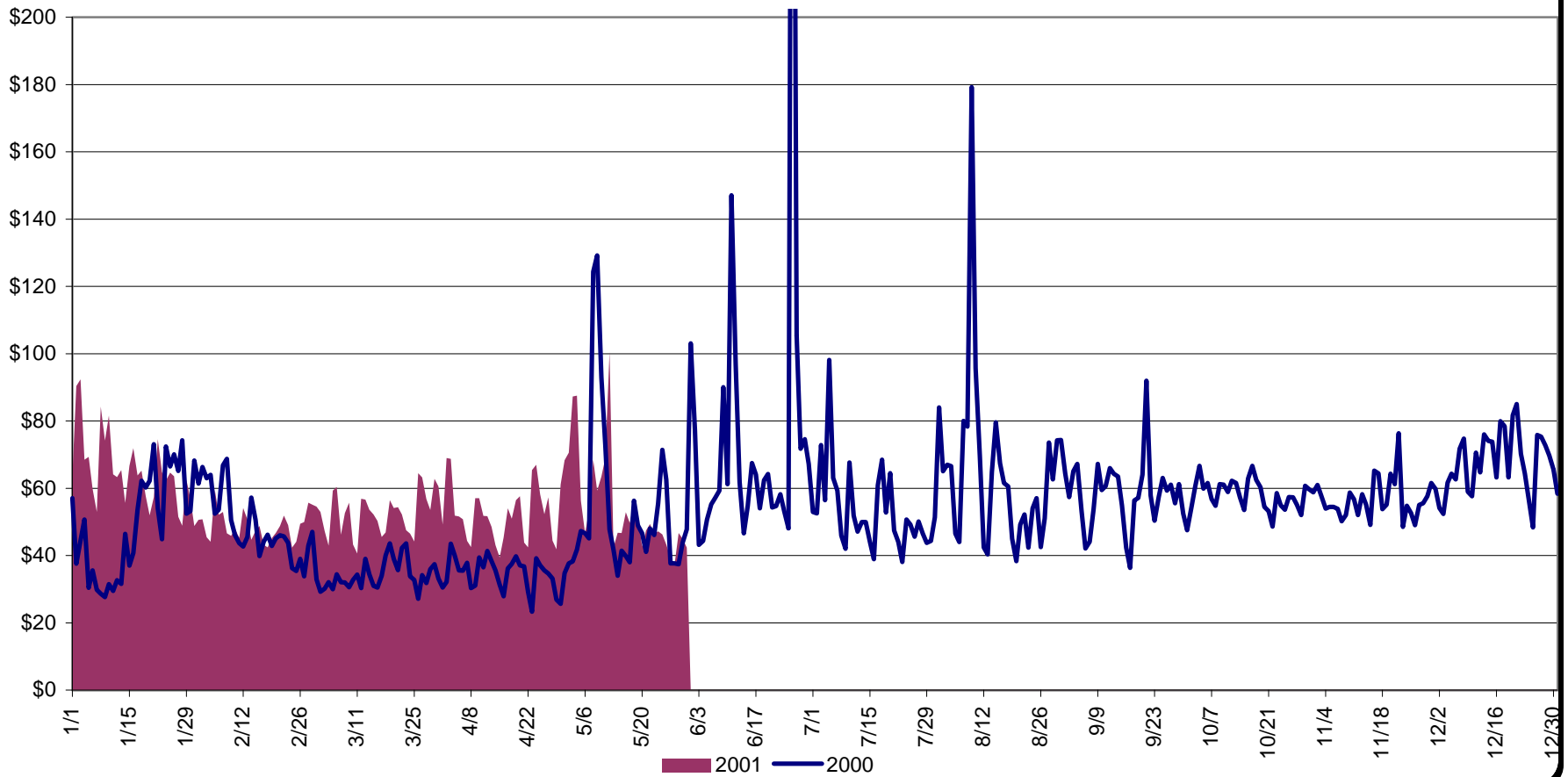
NERC Control Performance Standard
NYISO Compliance
Year 2000/2001



CPS2 for May-01 =97.00% Compliance Threshold=90%
CPS2 measures excessive unscheduled power flow resulting from large Area Control Error(ACE)

Average Daily NYISO - Administered Total Price (Energy & Ancillary Services)
2000 Annual Average \$57.81/MWH
Jan to May 2000 Average \$45.54/MWH
Jan to May 2001 Average \$56.01/MWH

June 26, 2000 Daily Average 414.14



NYISO Markets 2001 Energy Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<u>DAY AHEAD LBMP</u>												
Unweighted Price	\$56.41	\$42.09	\$46.94	\$45.53	\$46.19							
Standard Deviation	\$17.87	\$9.65	\$11.93	\$14.27	\$15.77							
Load Wtg.Price	\$58.34	\$43.25	\$48.23	\$47.48	\$48.57							
<u>BME * LBMP</u>												
Unweighted Price	\$54.40	\$47.43	\$53.87	\$56.37	\$199.56							
Standard Deviation	\$16.85	\$15.62	\$52.54	\$39.25	\$3,150.85							
Load Wtg.Price	\$55.95	\$48.86	\$55.98	\$59.22	\$218.73							
<u>REAL TIME LBMP</u>												
Unweighted Price	\$50.15	\$41.84	\$48.43	\$41.94	\$47.81							
Standard Deviation	\$19.32	\$22.21	\$35.68	\$28.52	\$51.99							
Load Wtg.Price	\$51.66	\$42.94	\$50.27	\$44.44	\$51.16							
Average Daily Energy Sendout/Month GWh	443	434	423	388	397							

NYISO Markets 2000 Energy Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<u>DAY AHEAD LBMP</u>												
Unweighted Price	\$38.64	\$37.09	\$29.24	\$29.55	\$37.73	\$57.96	\$40.66	\$50.18	\$46.47	\$51.91	\$50.07	\$58.34
Standard Deviation	\$16.64	\$12.75	\$8.22	\$9.57	\$16.65	\$67.35	\$18.96	\$37.40	\$15.52	\$12.64	\$9.67	\$18.03
Load Wtg.Price	\$40.09	\$38.31	\$30.05	\$30.60	\$39.80	\$64.23	\$43.32	\$54.34	\$48.50	\$53.46	\$51.13	\$60.81
<u>BME * LBMP</u>												
Unweighted Price	\$52.24	\$52.40	\$27.44	\$30.95	\$135.39	\$230.91	\$40.26	\$121.45	\$59.17	\$55.44	\$49.31	\$61.57
Standard Deviation	\$391.99	\$244.80	\$21.97	\$14.13	\$5,206.45	\$2,355.22	\$34.84	\$1,207.51	\$92.35	\$21.42	\$14.92	\$31.11
Load Wtg.Price	\$55.95	\$55.25	\$28.21	\$31.93	\$210.52	\$290.60	\$42.26	\$137.53	\$61.96	\$57.29	\$50.59	\$65.35
<u>REAL TIME LBMP</u>												
Unweighted Price	\$49.46	\$34.52	\$27.40	\$27.04	\$41.17	\$46.26	\$36.81	\$48.86	\$50.12	\$51.74	\$48.89	\$58.28
Standard Deviation	\$99.49	\$20.65	\$20.80	\$13.14	\$74.60	\$91.83	\$21.87	\$59.58	\$53.73	\$19.28	\$19.89	\$48.47
Load Wtg.Price	\$54.16	\$36.06	\$28.57	\$28.11	\$48.07	\$53.28	\$39.42	\$54.84	\$54.11	\$53.62	\$50.41	\$60.38
Average Daily Energy Sendout/Month GWh	444	431	404	391	400	456	450	468	432	399	415	450

* Commonly referred as Hour Ahead Market (HAM)

NYISO Markets 2001 Transactions

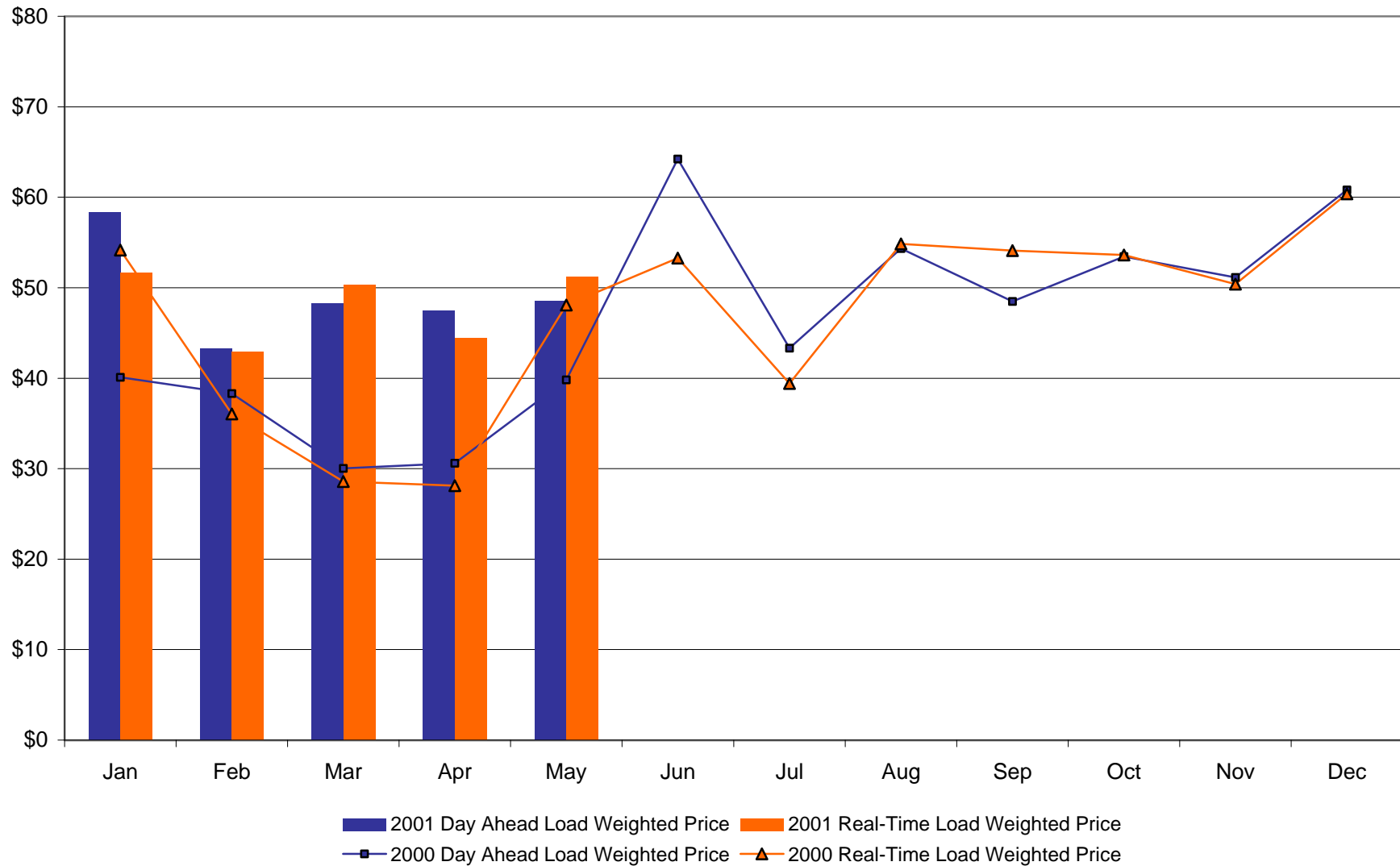
	January	February	March	April	May	June	July	August	September	October	November	December
<u>Transactions by Market</u>												
DAM LSE Internal LBMP Energy Sales	41%	39%	37%	36%	38%							
DAM External TC LBMP Energy Sales	3%	2%	1%	2%	1%							
DAM Bilateral - Internal Bilaterals	50%	51%	55%	55%	54%							
DAM Bilateral - Import/Non-LBMP Market Bilaterals	1%	1%	0%	0%	0%							
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	1%	1%	1%							
DAM Bilateral - Wheel Through Bilaterals	4%	6%	5%	5%	4%							
Day Ahead Market	100%	100%	100%	100%	100%							
Balancing Energy LSE Internal LBMP Energy Sales	63%	13%	97%	-1%	65%							
Balancing Energy External TC LBMP Energy Sales	56%	81%	26%	39%	59%							
Balancing Energy Bilateral - Internal Bilaterals	-8%	-1%	-7%	138%	-2%							
Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals	2%	23%	11%	6%	2%							
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	0%	0%	0%	0%	0%							
Balancing Energy Bilateral - Wheel Through Bilaterals	-13%	-17%	-27%	-82%	-24%							
Balancing Energy *	100%	100%	100%	100%	100%							
<u>Transactions Summary</u>												
LBMP	45%	42%	40%	38%	41%							
Internal Bilaterals	49%	51%	54%	57%	54%							
Import Bilaterals	1%	1%	1%	0%	0%							
Export Bilaterals	1%	1%	1%	1%	1%							
Wheels Through	4%	5%	4%	4%	4%							
<u>Market Share of Total Load</u>												
Day Ahead Market	97.71%	98.07%	98.03%	98.65%	98.20%							
Balancing Energy *	2.29%	1.93%	1.97%	1.35%	1.80%							
Total MWH	14,684,835	13,195,754	13,898,304	11,960,273	13,211,577							

NYISO Markets 2000 Transactions

	January	February	March	April	May	June	July	August	September	October	November	December
<u>Transactions Summary</u>												
LBMP	30%	31%	35%	37%	42%	44%	45%	45%	50%	48%	43%	47%
Internal Bilaterals	64%	63%	60%	58%	52%	51%	50%	51%	45%	48%	51%	48%
Import Bilaterals	2%	2%	2%	2%	1%	1%	1%	1%	2%	1%	1%	1%
Export Bilaterals	1%	1%	1%	1%	1%	1%	2%	1%	1%	2%	2%	0%
Wheels Through	2%	3%	1%	1%	4%	3%	3%	2%	2%	1%	3%	3%
<u>Market Share of Total Load</u>												
Day Ahead Market	97.97%	97.85%	97.25%	96.18%	98.52%	98.70%	101.33%	102.12%	96.98%	98.29%	96.11%	96.22%
Balancing Energy *	2.03%	2.15%	2.75%	3.82%	1.48%	1.30%	-1.33%	-2.12%	3.02%	1.71%	3.89%	3.78%
Total MWH	13,979,215	12,933,930	12,616,286	11,800,570	12,940,566	13,964,207	14,199,309	15,011,759	13,321,117	12,516,751	12,635,197	14,740,664

* Balancing Energy: Load(MW) purchased at Real Time LBMP.

NYISO Monthly Average Internal LBMPs 2000 - 2001



NYISO Markets 2001 Ancillary Service Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<u>ANCILLARY SERVICES Day Ahead Market</u>												
10 Min Spin												
Unweighted Price	\$2.71	\$2.22	\$3.41	\$2.73	\$3.57							
Standard Deviation	\$1.67	\$0.56	\$5.48	\$3.79	\$4.92							
10 Min Non Synch												
Unweighted Price	\$1.69	\$2.19	\$2.22	\$1.84	\$1.85							
Standard Deviation	\$0.78	\$0.60	\$0.63	\$0.79	\$0.81							
30 Min												
Unweighted Price	\$0.60	\$0.89	\$0.79	\$0.75	\$0.80							
Standard Deviation	\$0.40	\$0.76	\$0.33	\$0.30	\$0.63							
Regulation												
Unweighted Price	\$7.80	\$8.81	\$9.13	\$9.25	\$13.48							
Standard Deviation	\$5.50	\$8.56	\$9.57	\$13.27	\$15.19							
<u>ANCILLARY SERVICES BME *</u>												
10 Min Spin												
Unweighted Price	\$3.19	\$2.85	\$3.95	\$3.74	\$4.37							
Standard Deviation	\$3.95	\$4.04	\$7.67	\$6.36	\$6.95							
10 Min Non Synch												
Unweighted Price	\$1.70	\$2.16	\$2.39	\$1.93	\$2.05							
Standard Deviation	\$0.92	\$0.74	\$4.40	\$0.96	\$1.08							
30 Min												
Unweighted Price	\$0.88	\$0.94	\$1.26	\$0.86	\$1.21							
Standard Deviation	\$0.84	\$0.86	\$4.46	\$0.89	\$1.15							
Regulation												
Unweighted Price	\$5.70	\$7.26	\$6.68	\$6.62	\$12.05							
Standard Deviation	\$5.97	\$7.83	\$6.69	\$3.73	\$15.56							

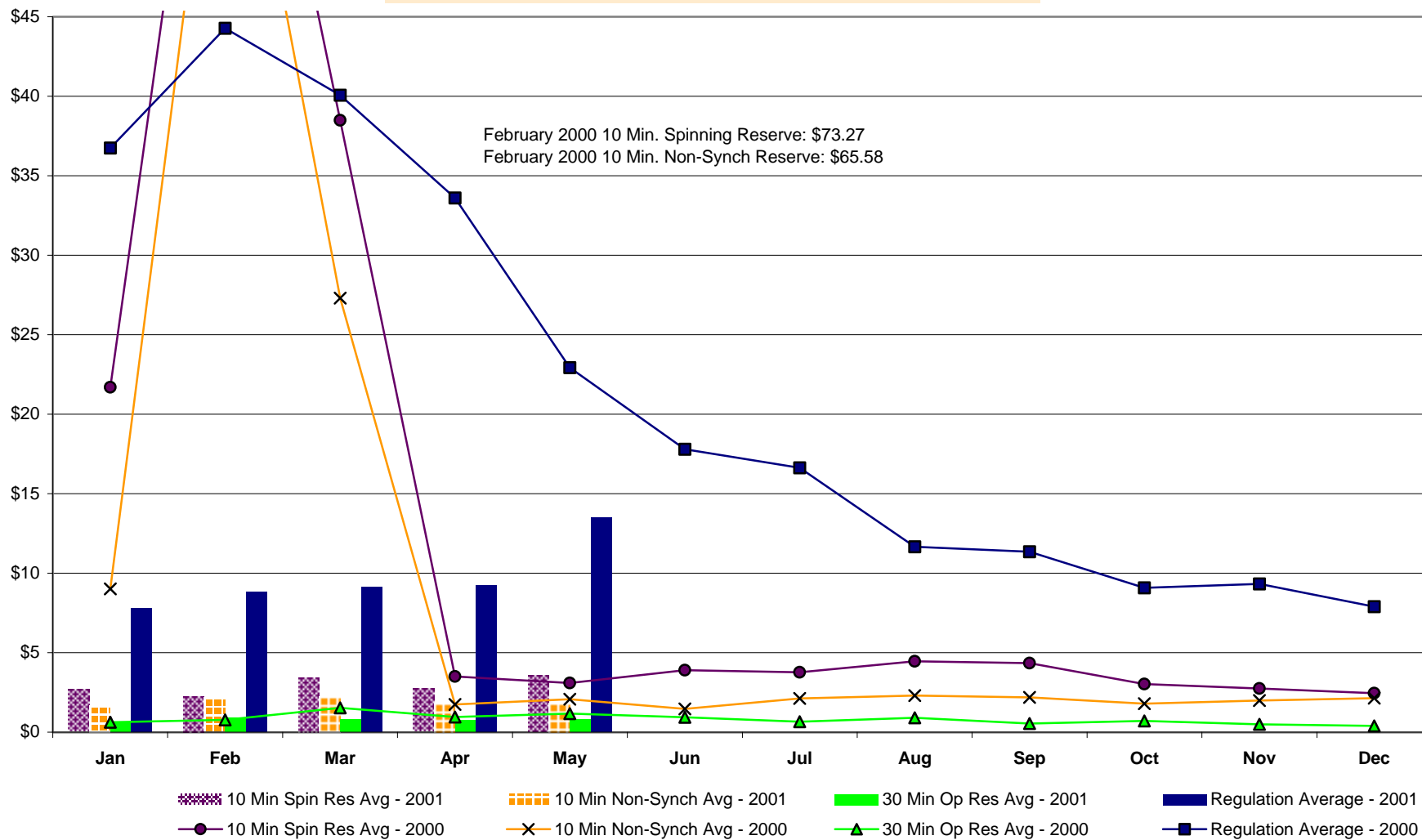
* Commonly referred as Hour Ahead Market (HAM)

NYISO Markets 2000 Ancillary Services Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<u>ANCILLARY SERVICES Day Ahead Market</u>												
10 Min Spin												
Price	\$21.70	\$73.27	\$38.48	\$3.51	\$3.10	\$3.89	\$3.76	\$4.45	\$4.34	\$3.03	\$2.74	\$2.45
Standard Deviation	\$26.67	\$32.24	\$34.05	\$5.74	\$5.31	\$4.88	\$2.61	\$5.63	\$6.50	\$4.95	\$3.81	\$0.76
10 Min Non Synch												
Price	\$9.01	\$65.58	\$27.31	\$1.75	\$2.07	\$1.47	\$2.12	\$2.30	\$2.18	\$1.80	\$1.99	\$2.14
Standard Deviation	\$0.39	\$0.22	\$6.39	\$0.45	\$5.07	\$2.52	\$1.35	\$2.02	\$0.21	\$0.62	\$0.58	\$0.57
30 Min												
Price	\$0.62	\$0.77	\$1.53	\$0.95	\$1.17	\$0.93	\$0.66	\$0.91	\$0.55	\$0.70	\$0.50	\$0.39
Standard Deviation	\$19.20	\$24.13	\$16.17	\$0.16	\$5.12	\$2.51	\$1.39	\$2.14	\$0.30	\$0.27	\$0.39	\$0.39
Regulation												
Price	\$36.75	\$44.27	\$40.07	\$33.61	\$22.93	\$17.79	\$16.63	\$11.66	\$11.35	\$9.08	\$9.32	\$7.89
Standard Deviation	\$42.26	\$21.99	\$23.72	\$35.08	\$11.18	\$9.52	\$9.17	\$5.13	\$10.38	\$6.96	\$7.93	\$5.73
<u>ANCILLARY SERVICES BME *</u>												
10 Min Spin												
Price	\$25.38	\$135.38	\$30.76	\$2.83	\$10.96	\$4.58	\$3.60	\$5.58	\$5.64	\$6.02	\$9.05	\$2.87
Standard Deviation	\$37.34	\$798.48	\$31.12	\$6.32	\$27.38	\$6.74	\$5.68	\$8.40	\$8.54	\$9.66	\$12.05	\$3.37
10 Min Non Synch												
Price	\$20.37	\$125.72	\$25.45	\$1.97	\$10.31	\$1.87	\$1.77	\$1.71	\$2.07	\$1.66	\$1.86	\$1.98
Standard Deviation	\$33.81	\$799.03	\$23.67	\$4.51	\$27.41	\$3.77	\$3.77	\$1.74	\$0.51	\$0.90	\$0.78	\$1.07
30 Min												
Price	\$0.90	\$12.13	\$8.77	\$0.96	\$9.37	\$1.16	\$0.71	\$0.58	\$0.46	\$0.49	\$0.39	\$0.60
Standard Deviation	\$2.35	\$26.61	\$23.48	\$4.55	\$27.70	\$3.84	\$3.79	\$1.67	\$0.59	\$0.60	\$0.63	\$1.01
Regulation												
Price	\$21.07	\$20.84	\$19.25	\$24.34	\$20.26	\$18.15	\$13.31	\$10.16	\$10.46	\$8.28	\$7.94	\$6.19
Standard Deviation	\$26.50	\$19.49	\$19.55	\$33.72	\$11.44	\$39.80	\$9.66	\$8.06	\$11.39	\$8.82	\$8.50	\$5.90

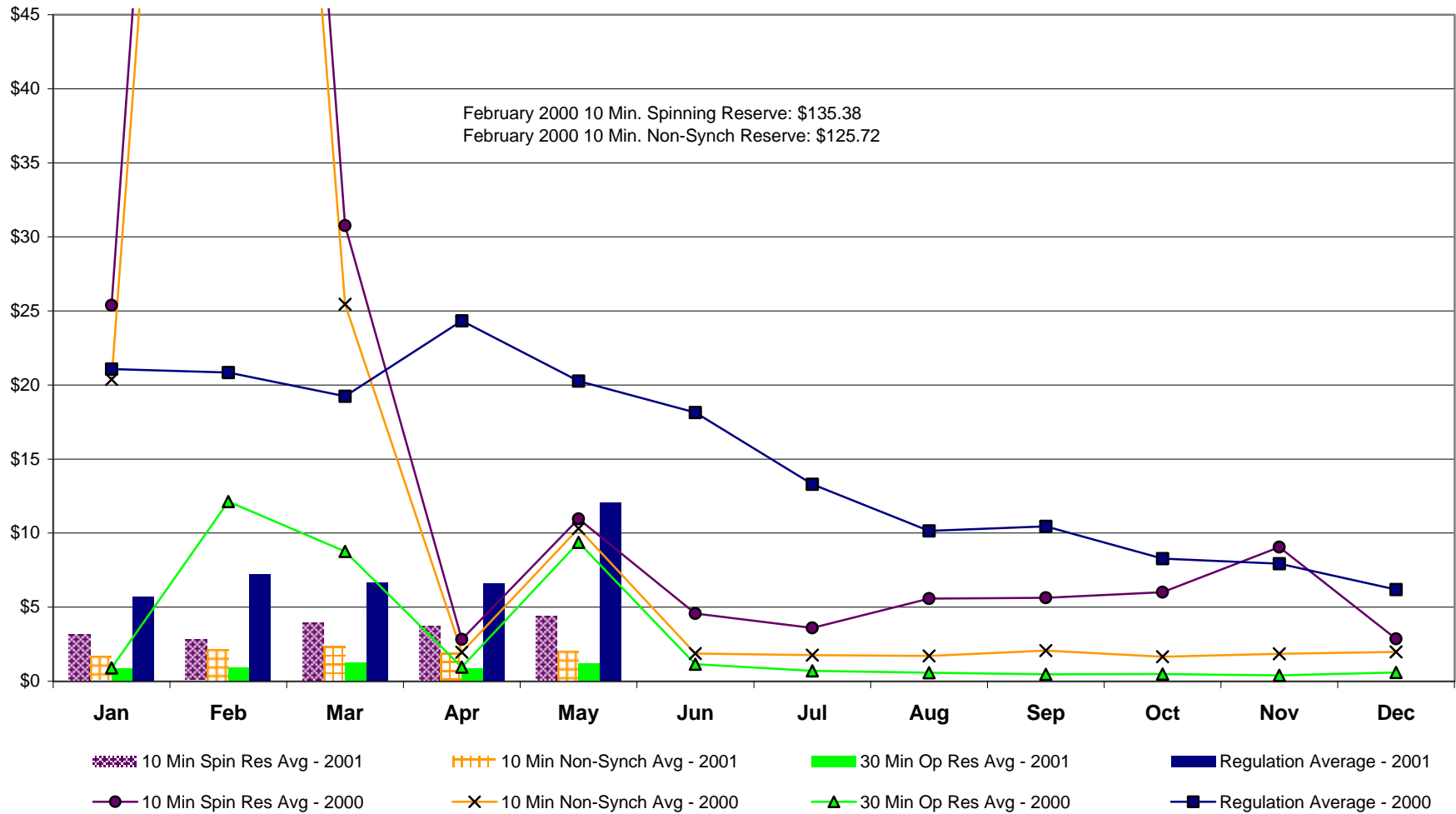
* Commonly referred as Hour Ahead Market

NYISO Monthly Average Ancillary Service Prices Day Ahead Market 2000 - 2001



NYISO Monthly Average Ancillary Service Prices

BME * 2000 - 2001



* Commonly referred as Hour Ahead Market (HAM)

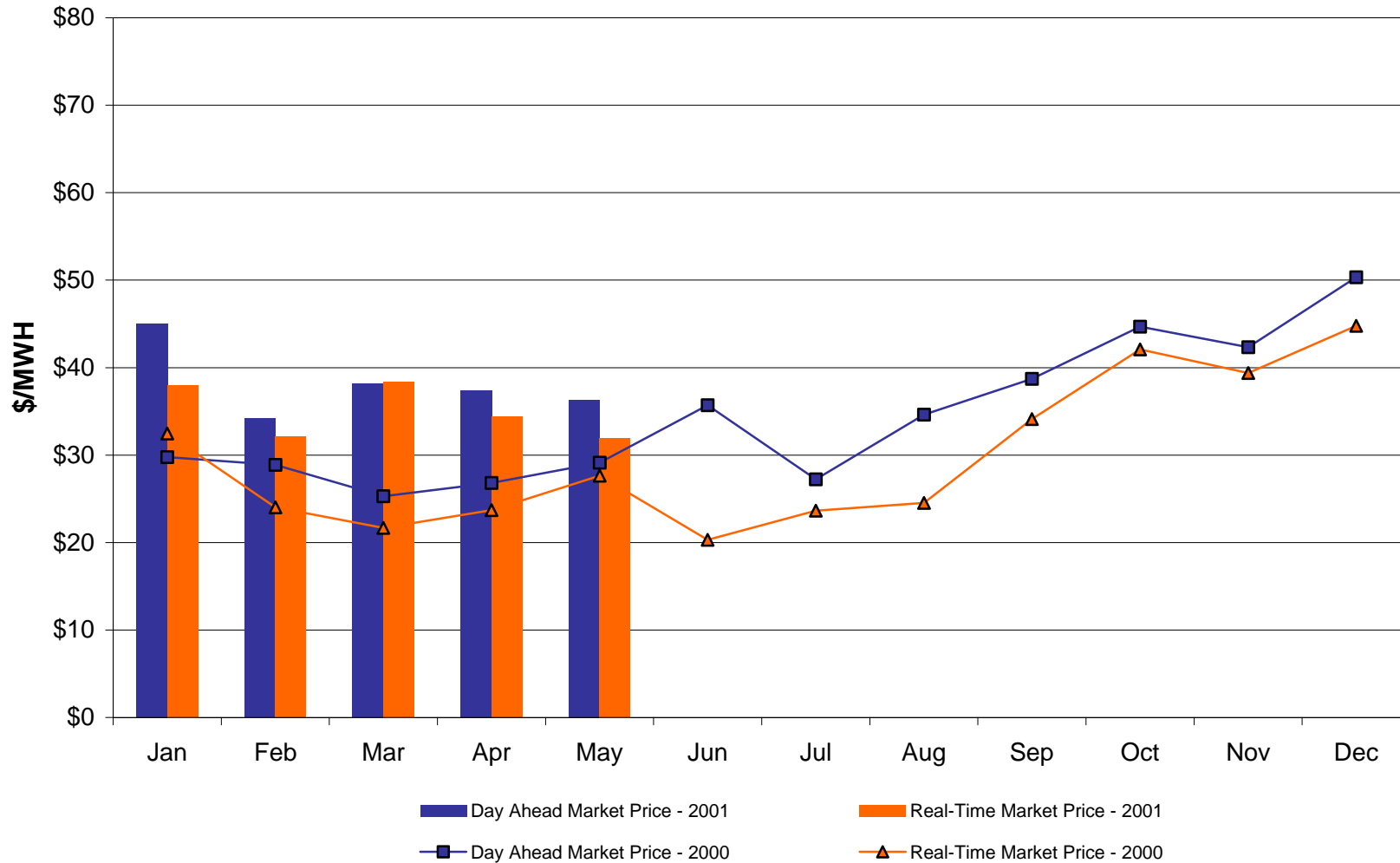
May, 2001 Zonal Statistics for NYISO

	WEST Zone A	CENTRAL Zone C	MOHAWK VALLEY Zone E	CAPITAL Zone F	HUDSON VALLEY Zone G	GENESEE Zone B	LONG ISLAND Zone K	NORTH Zone D	NEW YORK CITY Zone J	MILLWOOD Zone H	DUNWOODIE Zone I
<u>DAY AHEAD LBMP</u>											
Unweighted Price	\$36.27	\$39.57	\$40.17	\$44.85	\$47.26	\$37.10	\$53.97	\$38.81	\$51.27	\$47.18	\$48.85
Standard Deviation	\$37.34	\$11.59	\$11.46	\$13.13	\$17.11	\$10.89	\$20.58	\$10.48	\$20.01	\$18.61	\$19.27
<u>BME * LBMP</u>											
Unweighted Price	\$143.03	\$154.54	\$154.78	\$193.49	\$195.61	\$146.58	\$254.91	\$148.02	\$227.26	\$200.37	\$204.61
Standard Deviation	\$2,442.14	\$2,613.93	\$2,599.74	\$3,403.26	\$3,343.00	\$2,496.06	\$3,490.23	\$2,481.05	\$3,497.69	\$3,368.62	\$3,406.26
<u>REAL TIME LBMP</u>											
Unweighted Price	\$28.99	\$31.87	\$31.07	\$53.78	\$50.81	\$31.39	\$66.68	\$29.54	\$55.09	\$53.58	\$54.21
Standard Deviation	\$22.11	\$25.43	\$27.96	\$86.71	\$64.76	\$25.51	\$75.53	\$28.49	\$75.42	\$74.22	\$75.40

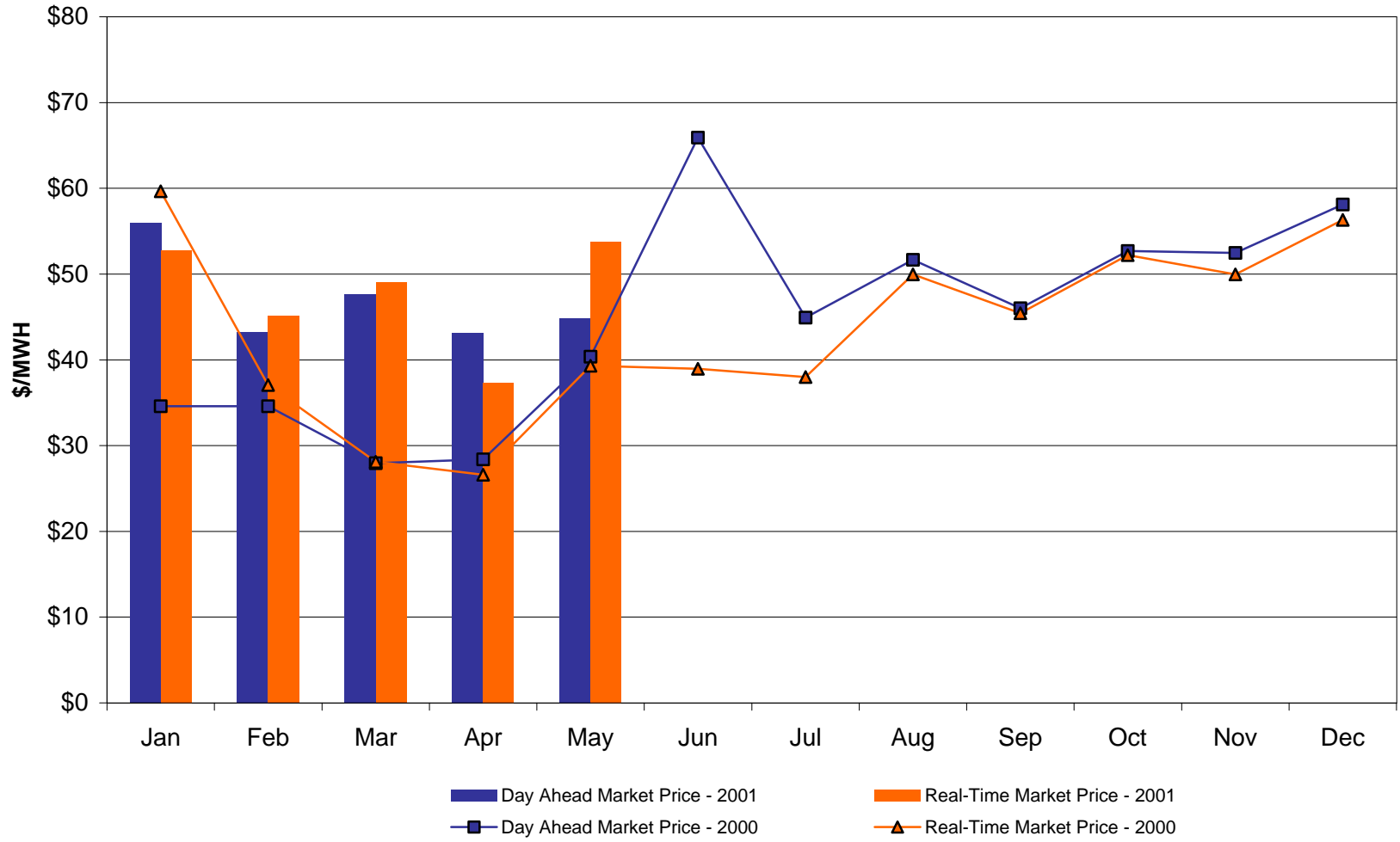
	HYDRO QUEBEC Zone M	NEW ENGLAND Zone N	ONTARIO HYDRO Zone O	PJM Zone P
<u>DAY AHEAD LBMP</u>				
Unweighted Price	\$39.11	\$47.26	\$35.68	\$36.30
Standard Deviation	\$10.76	\$16.17	\$10.38	\$13.58
<u>BME * LBMP</u>				
Unweighted Price	\$117.22	\$189.97	(\$53.35)	\$83.14
Standard Deviation	\$1,266.57	\$2,071.27	\$1,894.34	\$1,036.08
<u>REAL TIME LBMP</u>				
Unweighted Price	\$31.97	\$55.43	\$29.50	\$30.72
Standard Deviation	\$27.37	\$84.58	\$21.66	\$22.73

*Commonly referred Hour Ahead Market (HAM)

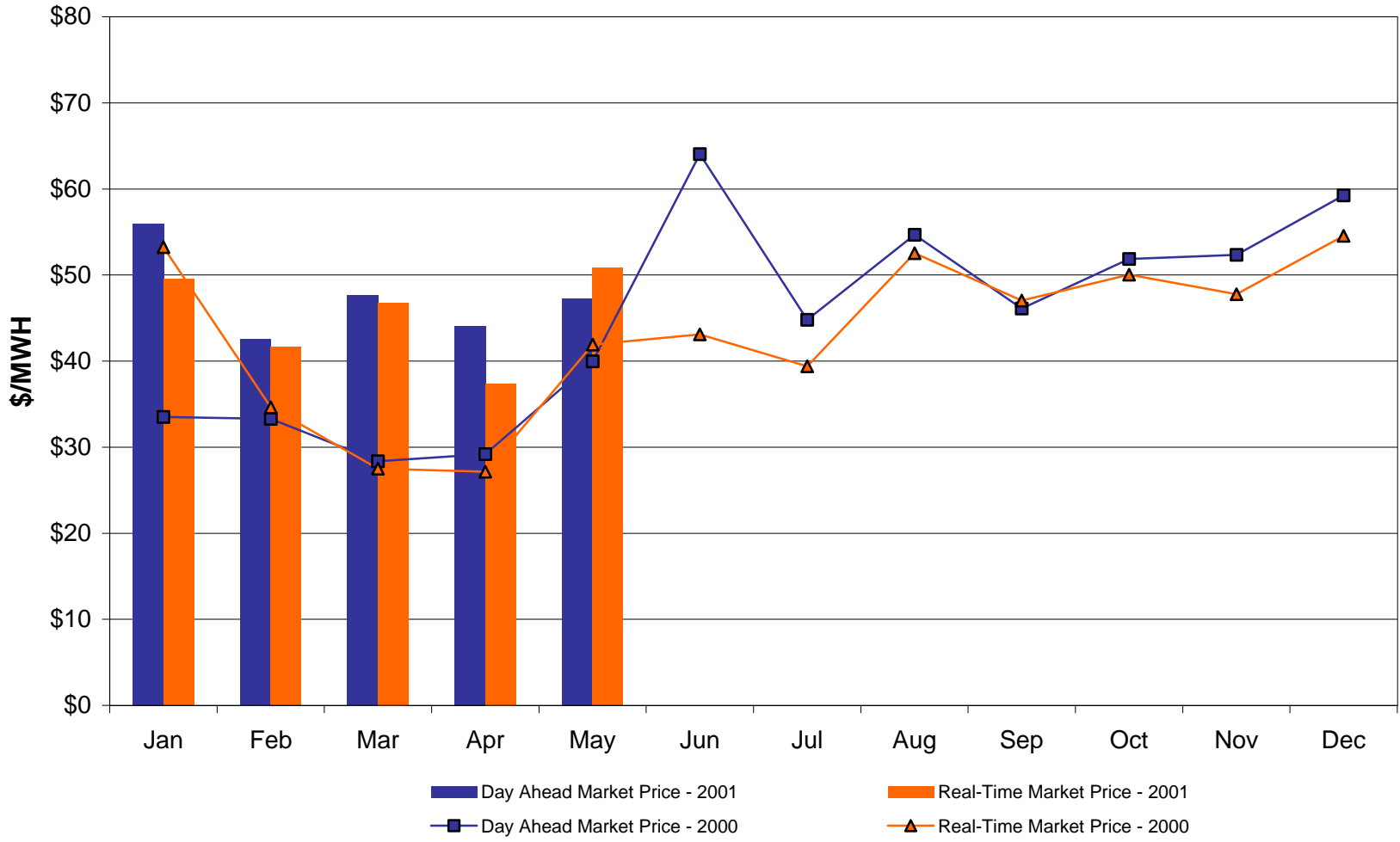
West Zone A Monthly Average LBMP Prices 2000 - 2001



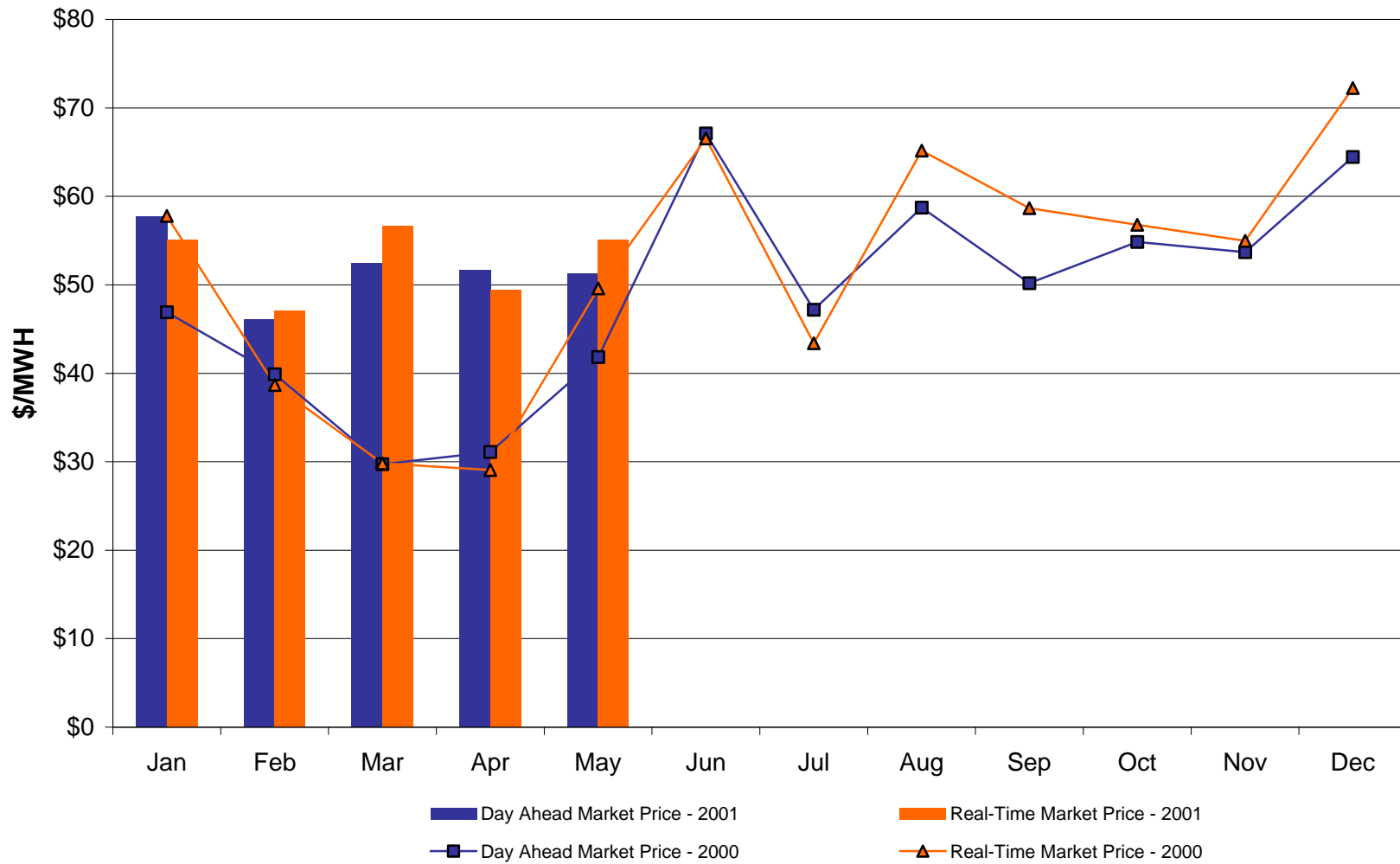
Capital Zone F Monthly Average LBMP Prices 2000 - 2001



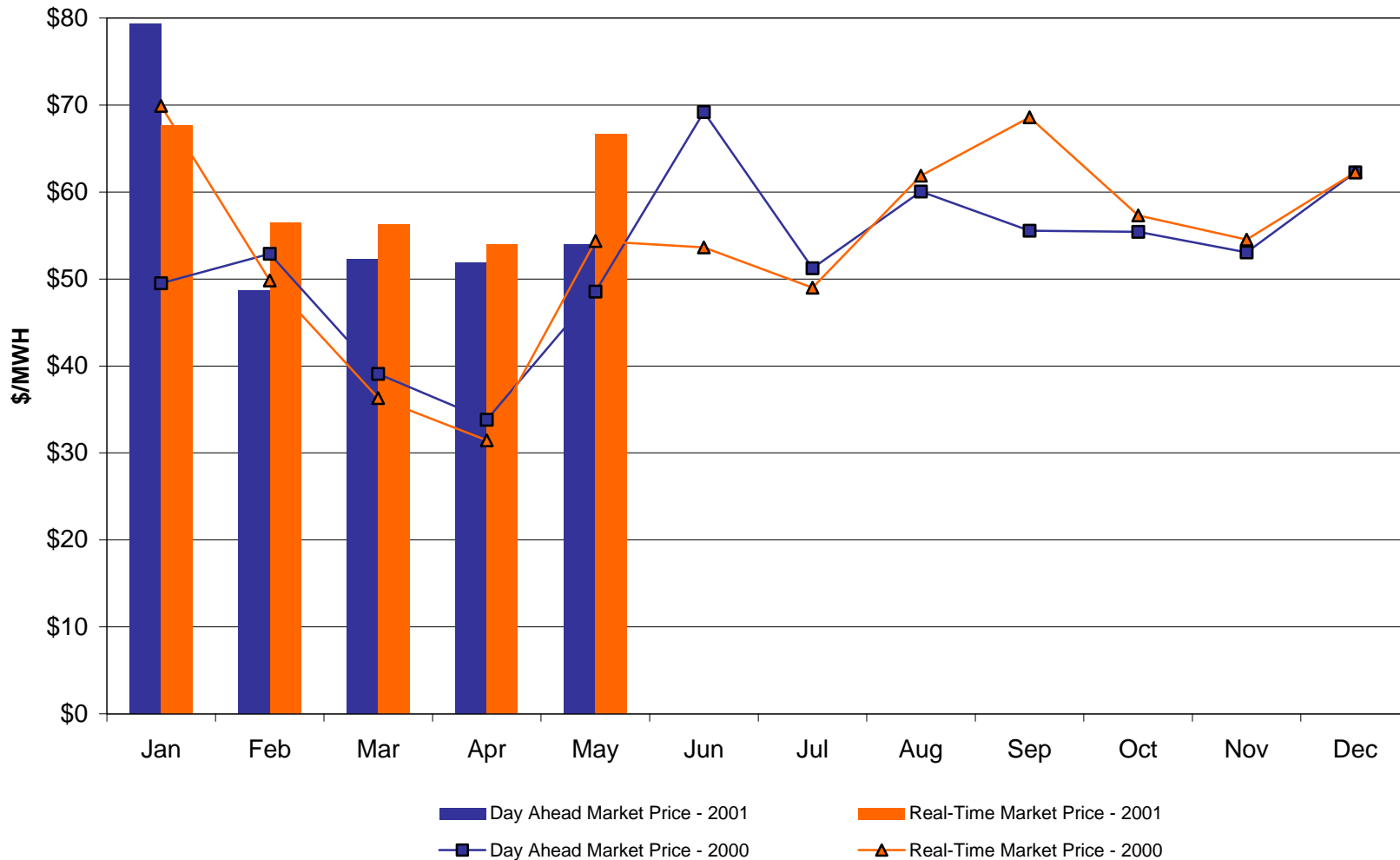
Hudson Valley Zone G Monthly Average LBMP Prices 2000 - 2001



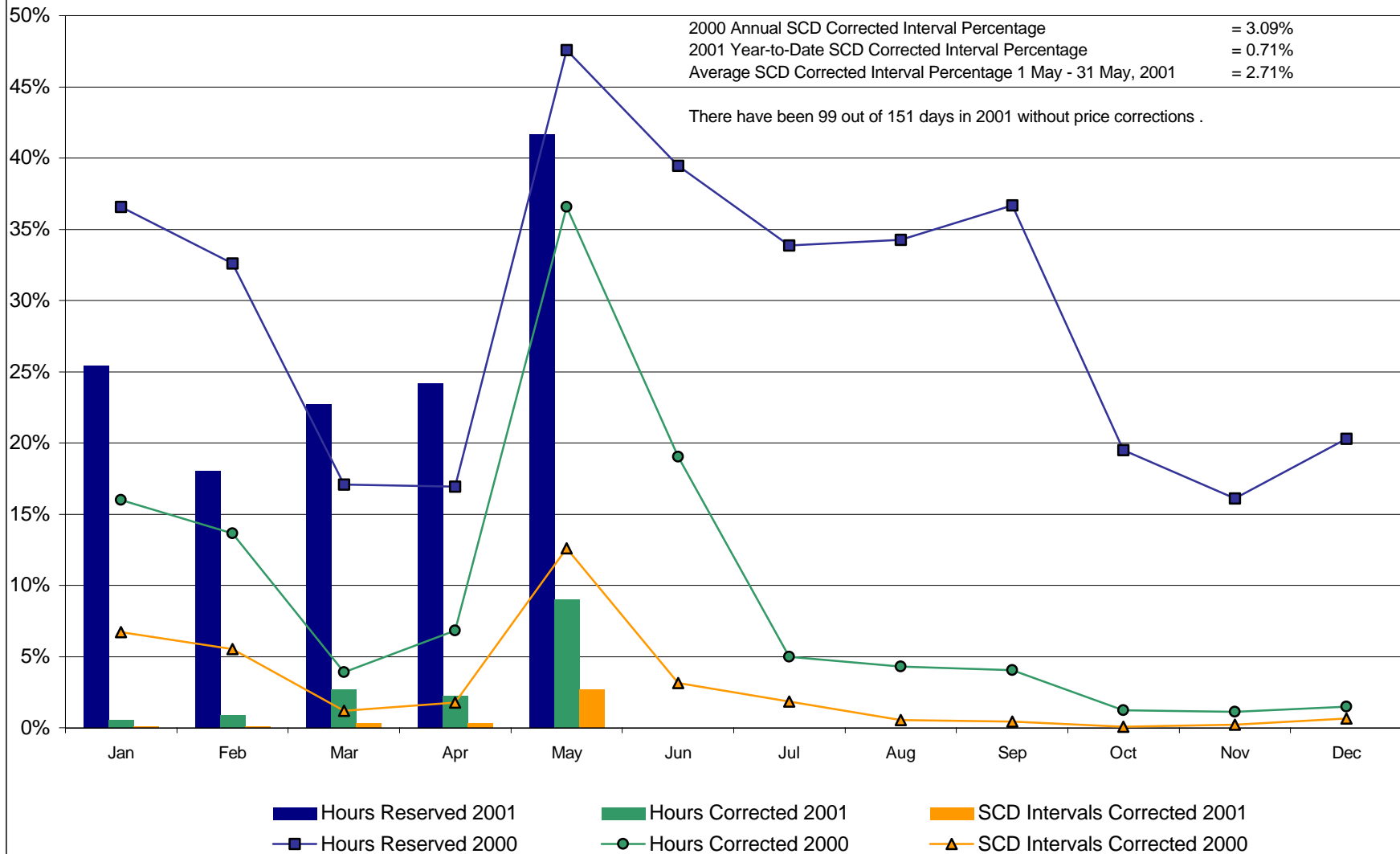
NYC Zone J Monthly Average LBMP Prices 2000 - 2001



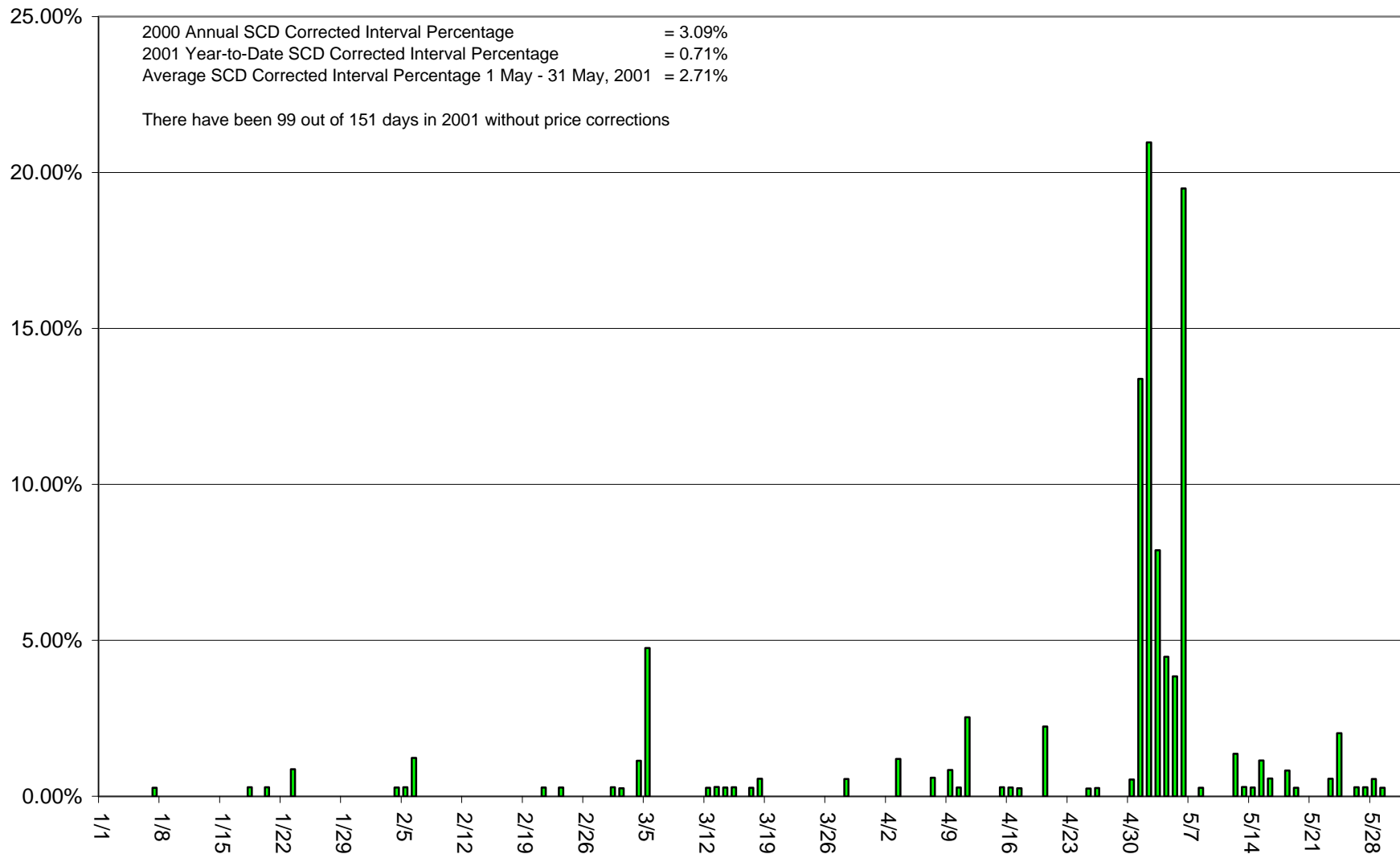
Long Island Zone K Monthly Average LBMP Prices 2000 - 2001



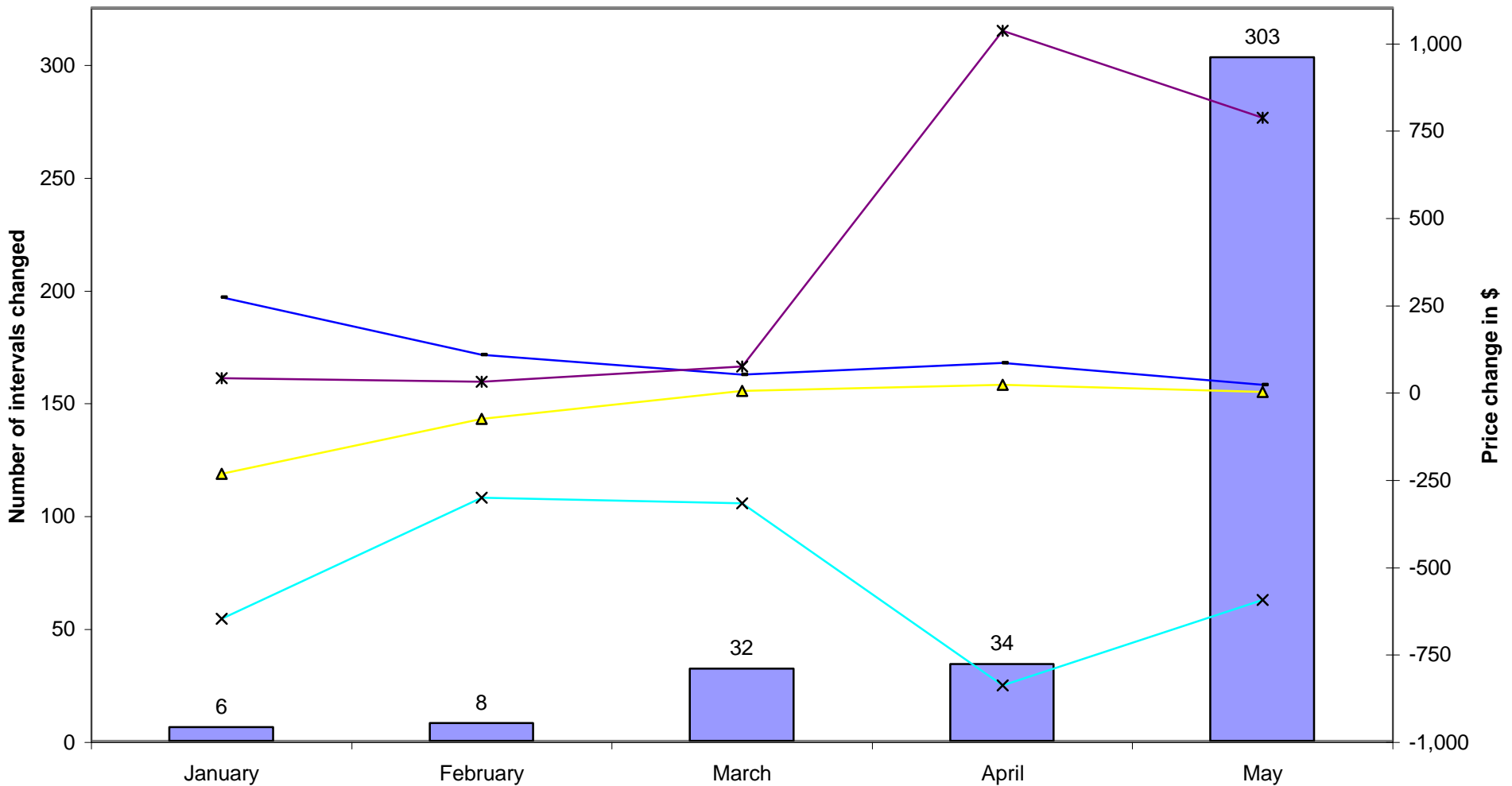
Percentage of Real-Time Corrections



Percentage of SCD Intervals Needing Correction (01/1/01 - 05/31/01)



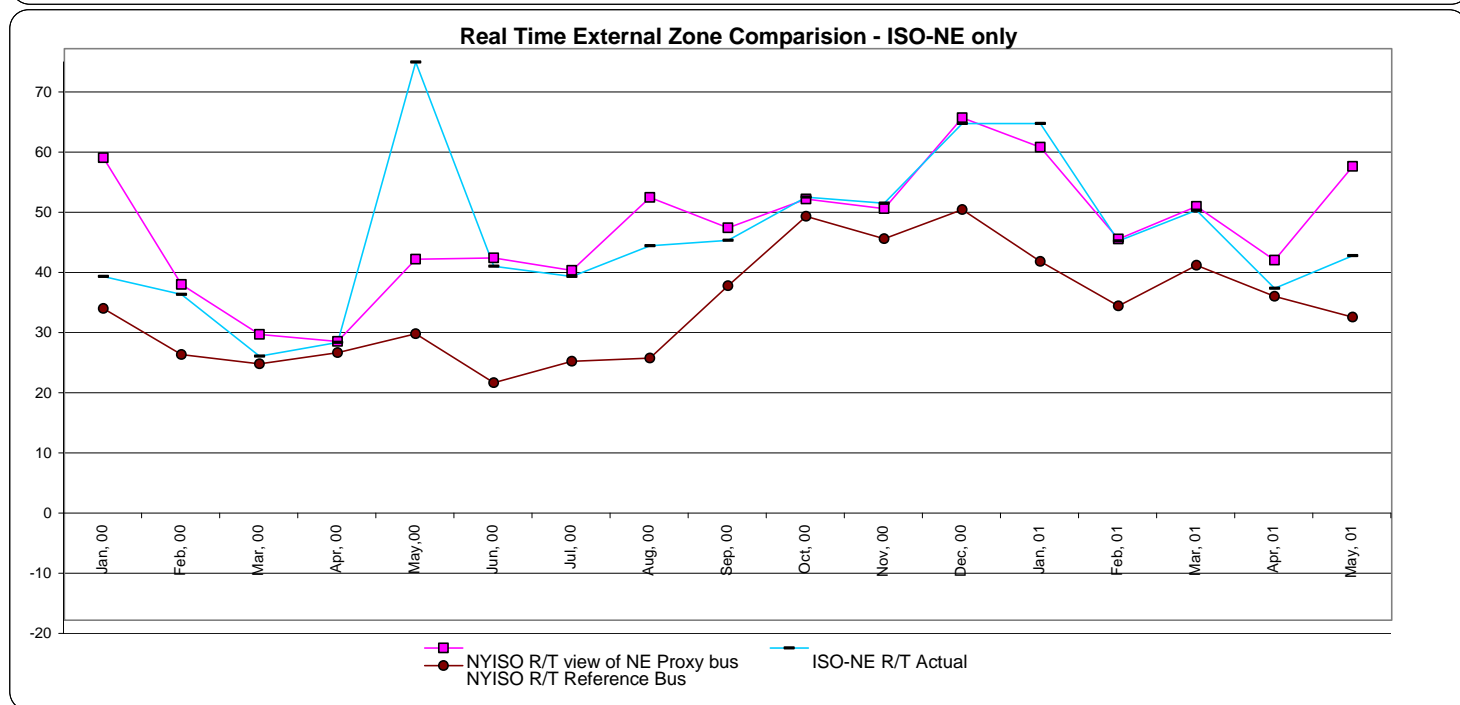
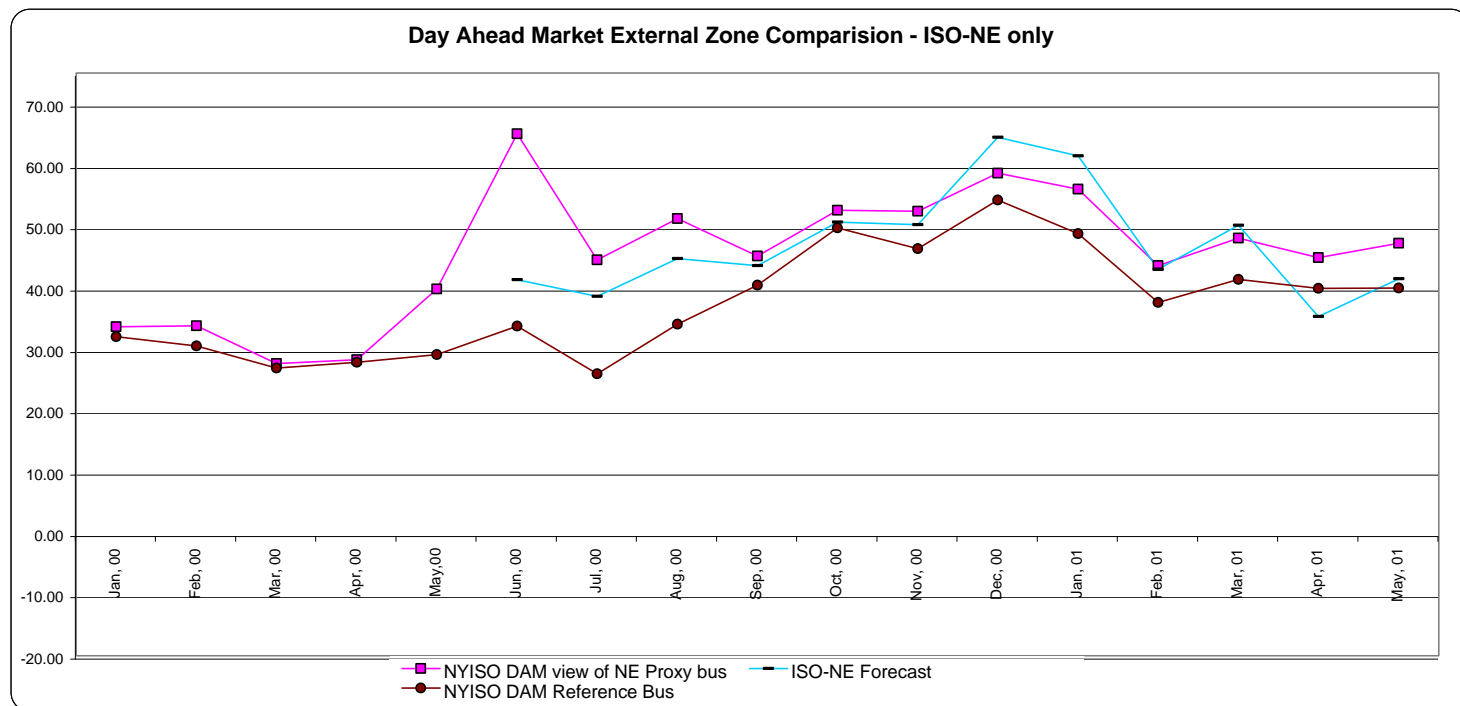
SCD Price Corrections 2001 - Magnitude and Count (Excludes intervals with ECA-B only corrections)



Number of Intervals Changed
 Average Absolute Change (SCD Correct - Original) \$
 Average Change (SCD Correct - Original) \$

Min Average Change (SCD Correct - Original) \$
 Max Average Change (SCD Correct - Original) \$

External Comparison ISO-NE

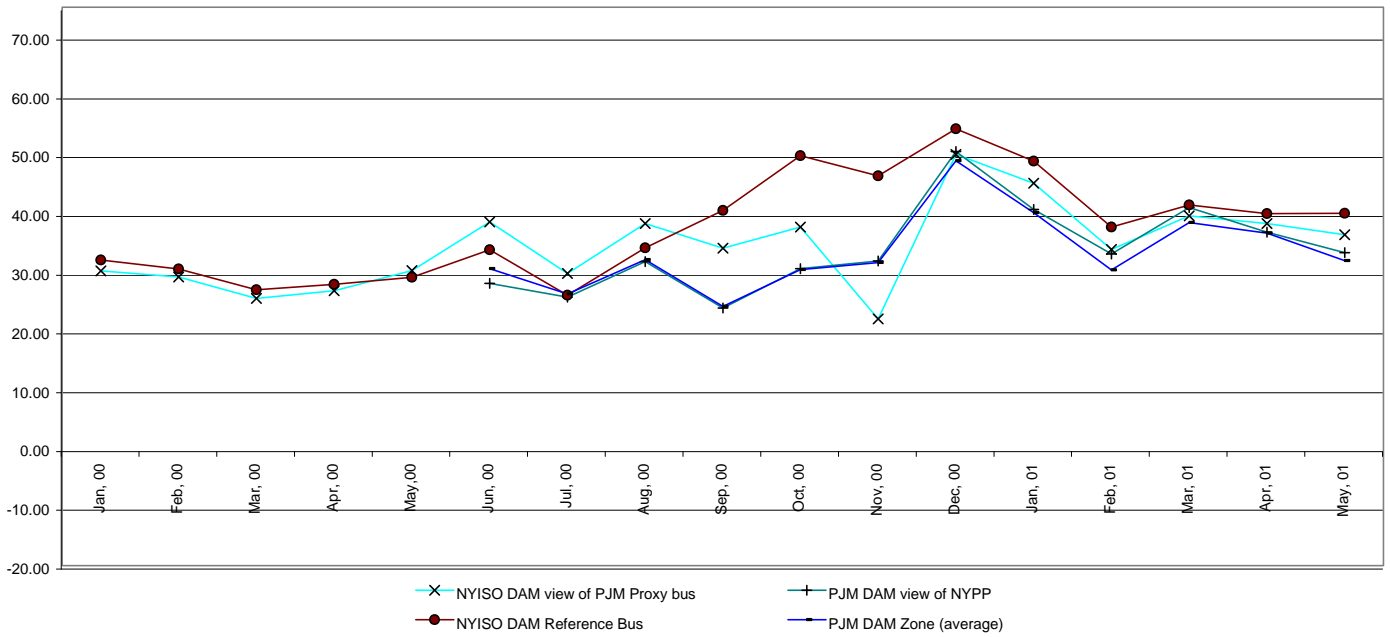


Note:

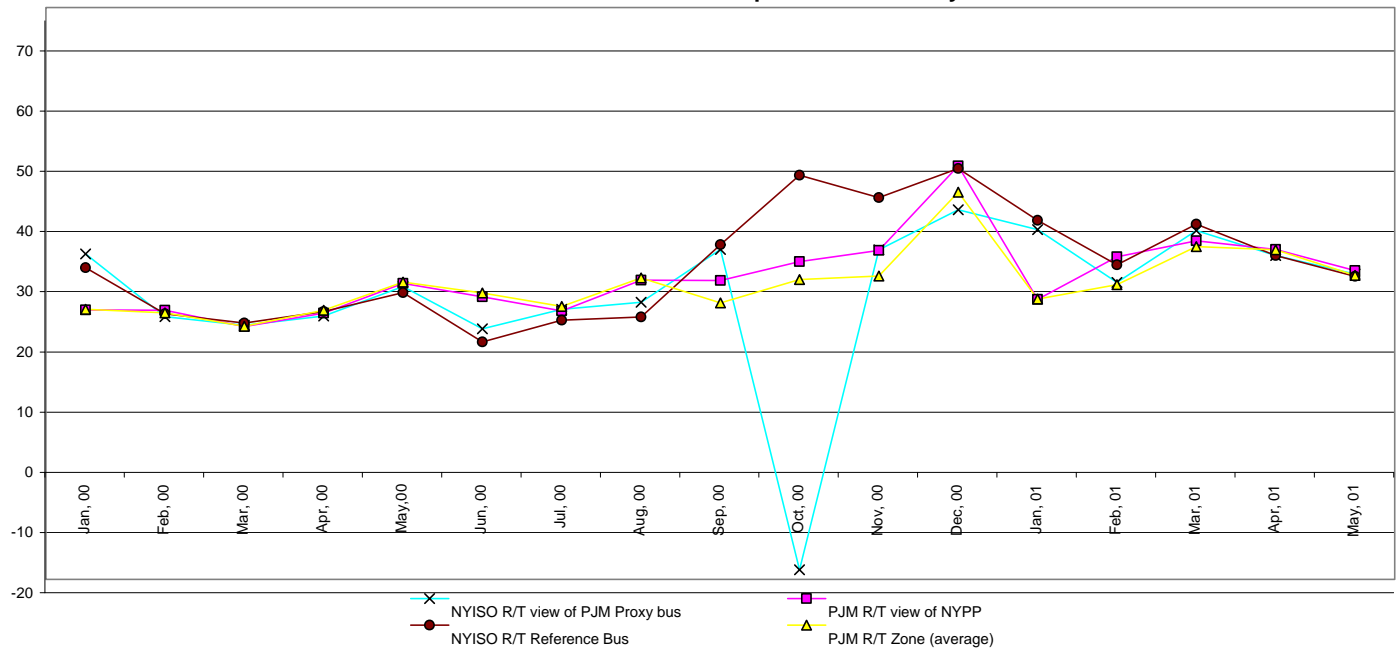
PJM DAM began 6/1/00
 After 4/1/01 PJM will consolidate NYPP-E and NYPP-W interfaces
 ISO-NE Forecast posting began 6/1/2000
 ISO-NE Forecast is an advisory posting @ 18:00 day before

External Comparison PJM

Day Ahead Market External Zone Comparison - PJM only



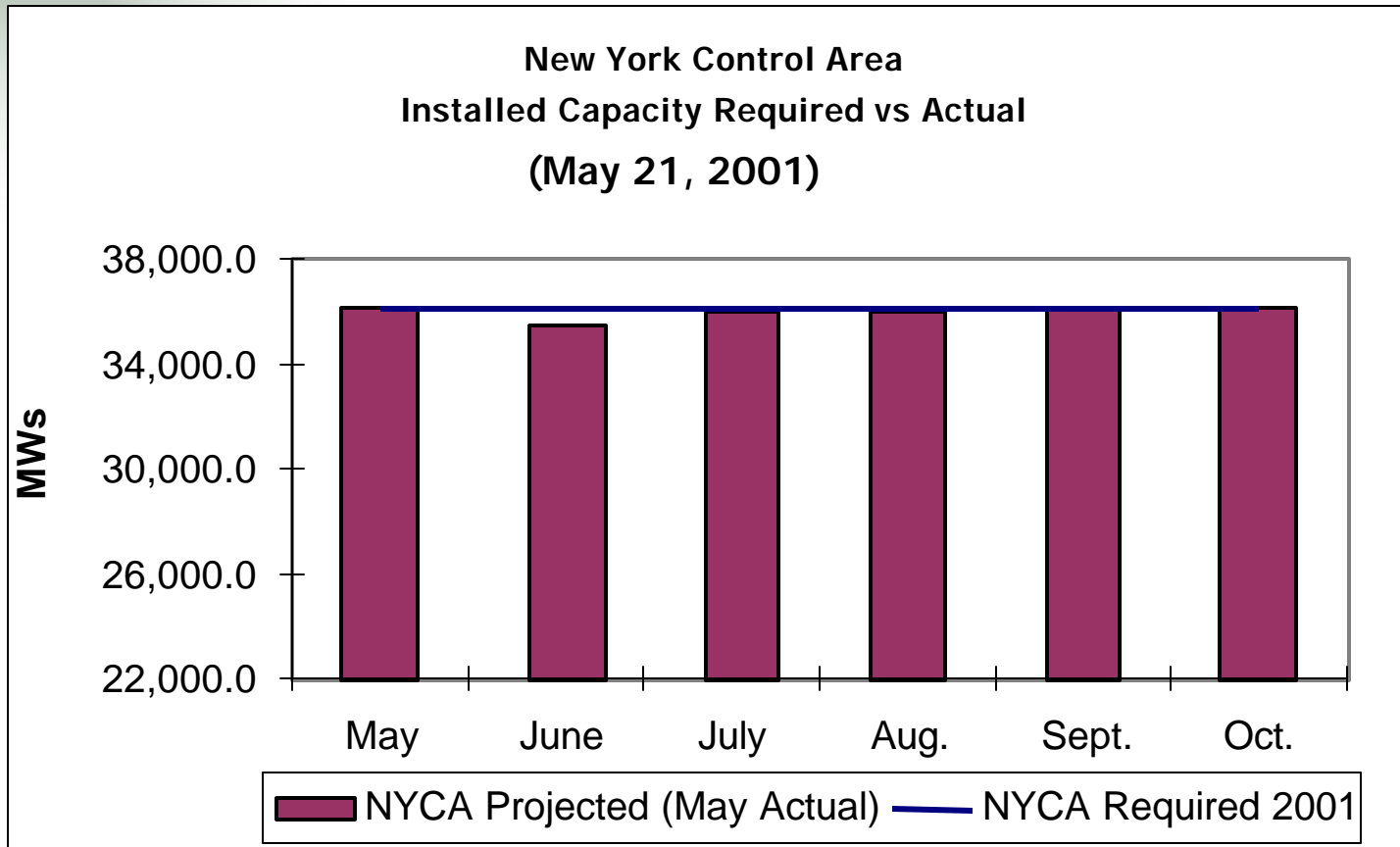
Real Time External Zone Comparison - PJM only



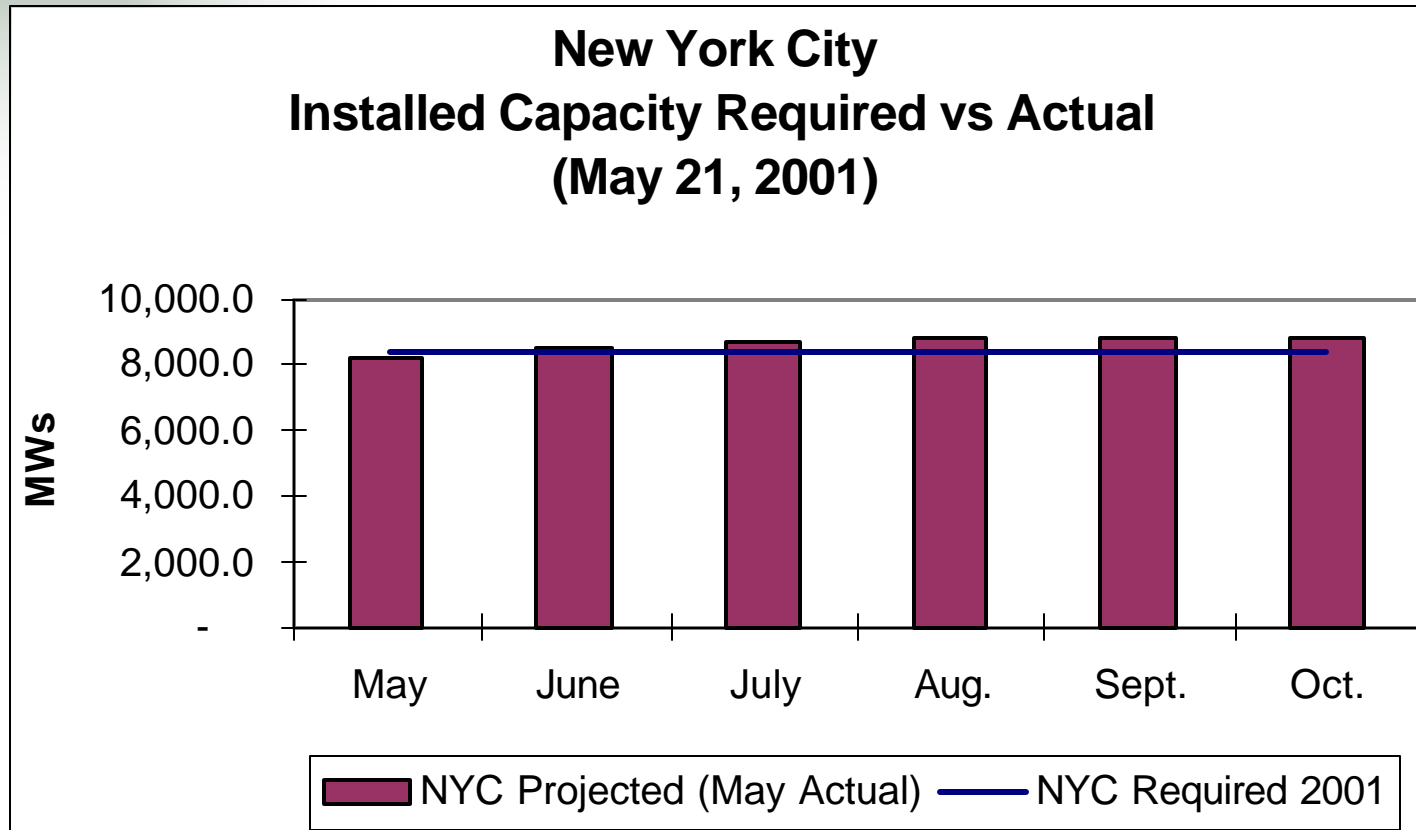
Note:

PJM DAM began 6/1/00
 After 4/1/01 PJM will consolidate NYPP-E and NYPP-W interfaces
 ISO-NE Forecast posting began 6/1/2000
 ISO-NE Forecast is an advisory posting @ 18:00 day before

New York State's Situation 2001



New York City's Situation 2001



MOU Status

Joint NY/NE Tech Bulletin titled “Selling Energy from New England to New York” was posted to the NYISO website on 6/14/01 for 5 day comment period.

Next MOU BP Working Group Stakeholders meeting is scheduled for July 9th in NYC. MOU revitalization process and tracking of MOU initiatives, including CSS, are key agenda items.