

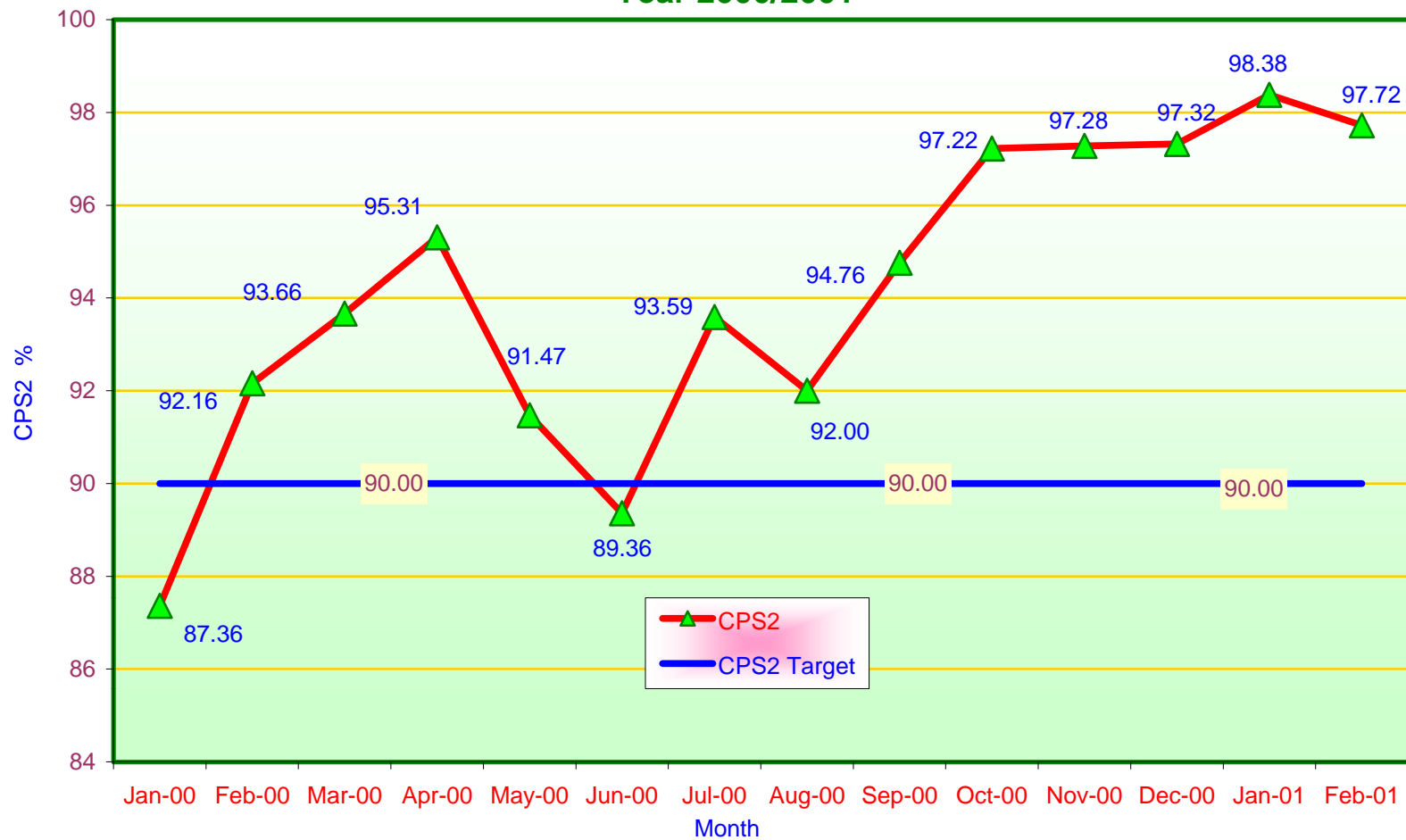
# **NYISO Market Operations Report**

*Business Issues Committee Meeting*

*March 15, 2001*

*Chuck King, NYISO VP Market Services*

### NERC Control Performance Standard NYISO Compliance Year 2000/2001



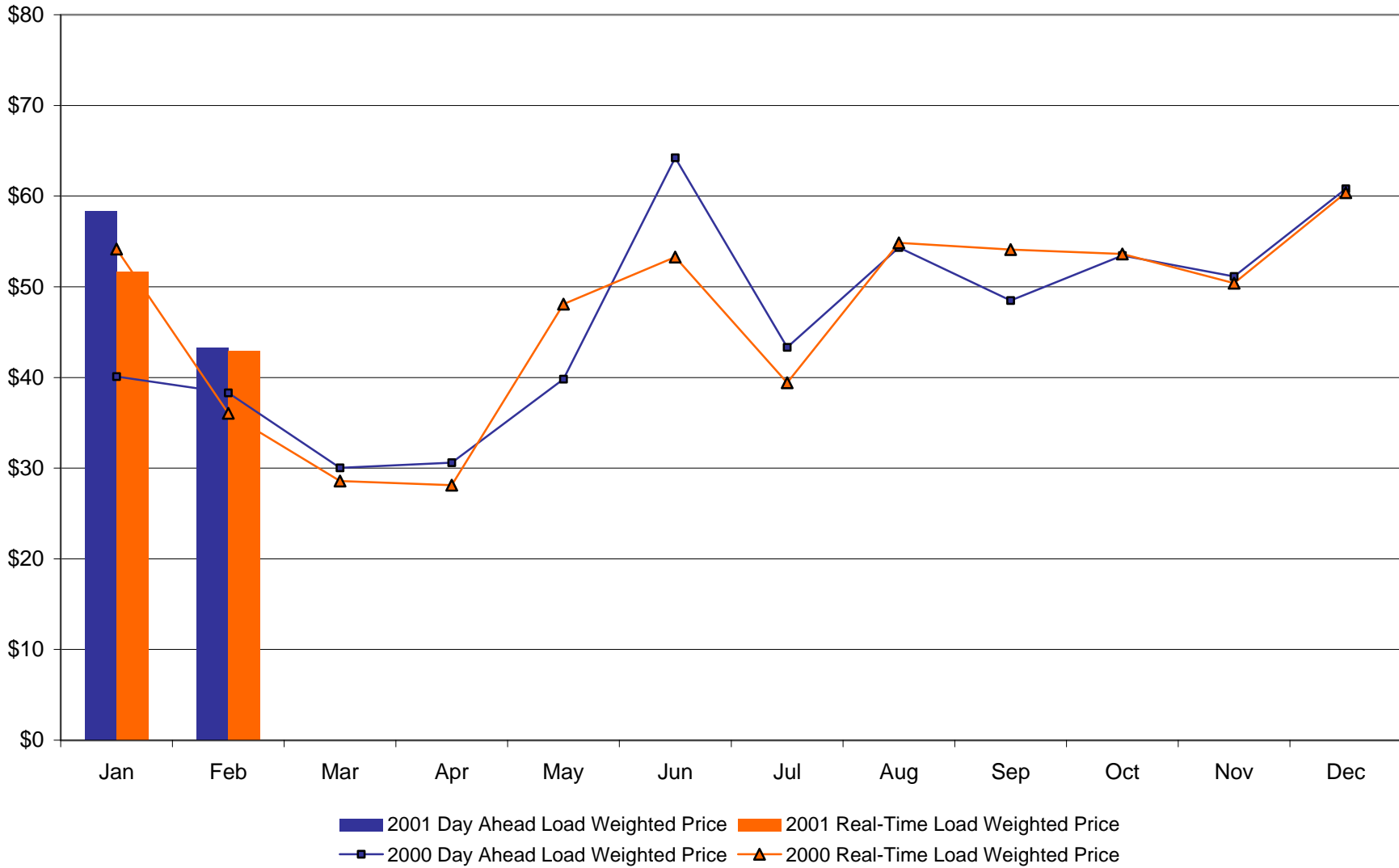
**CPS2 for Feb-01 =97.72% Compliance Threshold=90%**  
**CPS2 measures excessive unscheduled power flow resulting from large Area Control Error(ACE)**

February, 2001 Zonal Statistics for NYISO

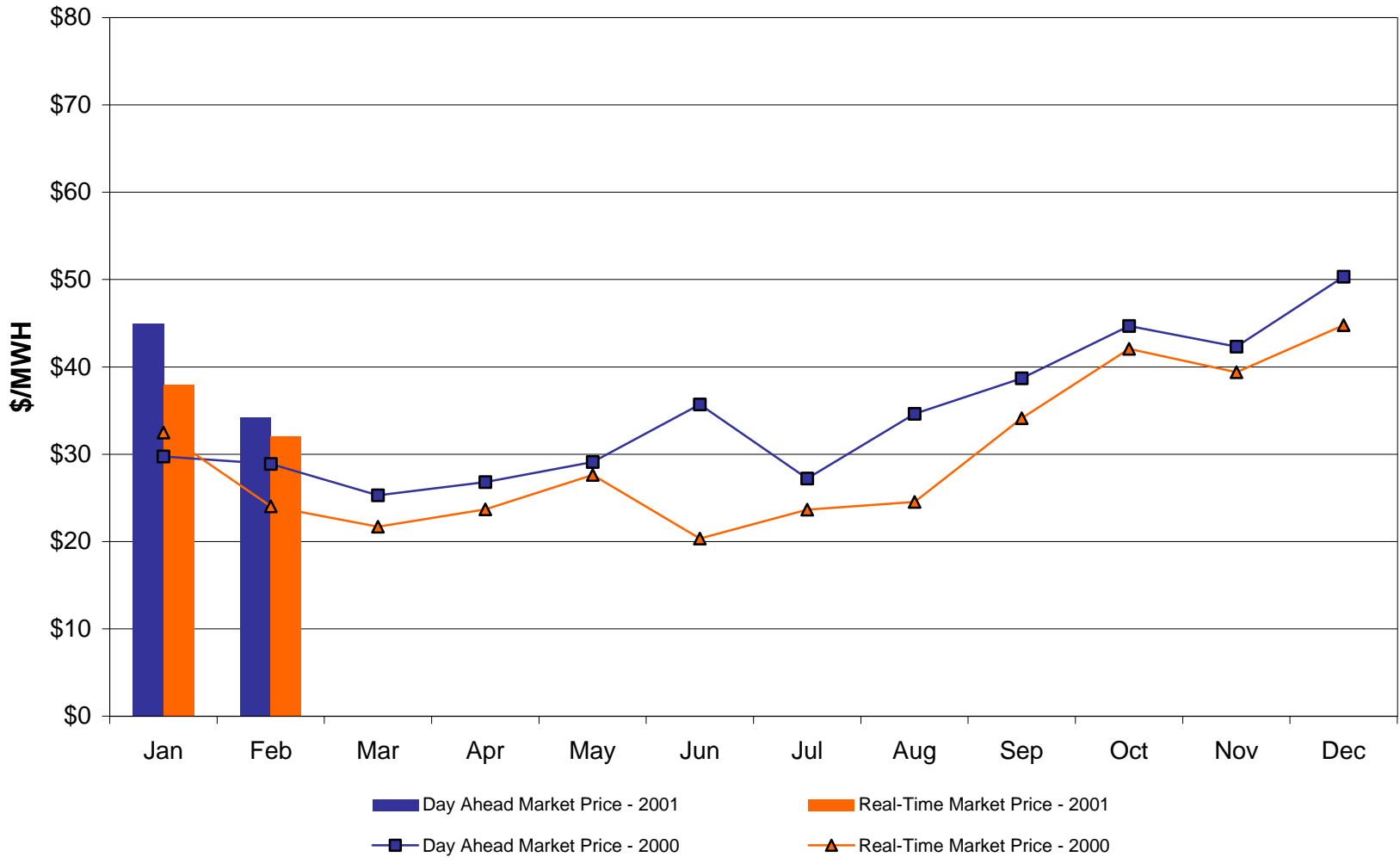
	WEST Zone A	CENTRAL Zone C	MOHAWK VALLEY Zone E	CAPITAL Zone F	HUDSON VALLEY Zone G	GENESEE Zone B	LONG ISLAND Zone K	NORTH Zone D	NEW YORK CITY Zone J	MILLWOOD Zone H	DUNWOODIE Zone I
<b><u>DAY AHEAD LBMP</u></b>											
Unweighted Price	\$34.24	\$36.91	\$38.03	\$43.26	\$42.59	\$35.42	\$48.66	\$37.25	\$46.09	\$42.53	\$43.06
Standard Deviation	\$44.97	\$8.62	\$8.78	\$10.48	\$10.41	\$8.20	\$11.77	\$8.27	\$11.75	\$10.41	\$10.56
<b><u>REAL TIME LBMP</u></b>											
Unweighted Price	\$30.95	\$32.16	\$32.86	\$45.13	\$41.66	\$32.44	\$56.49	\$32.01	\$47.11	\$41.98	\$42.63
Standard Deviation	\$17.35	\$18.30	\$19.01	\$27.83	\$25.09	\$18.24	\$27.45	\$18.47	\$29.41	\$25.16	\$25.57
<b><u>BALANCING MARKET LBMP</u></b>											
Unweighted Price	\$31.36	\$34.40	\$35.56	\$44.50	\$43.22	\$32.62	\$59.70	\$34.41	\$61.58	\$42.99	\$43.52
Standard Deviation	\$8.64	\$9.72	\$10.32	\$15.57	\$13.45	\$9.23	\$26.23	\$10.04	\$31.27	\$13.42	\$13.58

	HYDRO QUEBEC Zone M	NEW ENGLAND Zone N	ONTARIO HYDRO Zone O	PJM Zone P
<b><u>DAY AHEAD LBMP</u></b>				
Unweighted Price	\$37.18	\$43.57	\$33.92	\$33.79
Standard Deviation	\$8.30	\$10.70	\$7.41	\$9.75
<b><u>REAL TIME LBMP</u></b>				
Unweighted Price	\$32.08	\$43.36	\$31.25	\$29.31
Standard Deviation	\$19.10	\$26.95	\$18.08	\$19.77
<b><u>BALANCING MARKET LBMP</u></b>				
Unweighted Price	\$4.91	\$45.72	\$31.41	\$27.45
Standard Deviation	\$768.01	\$36.54	\$10.22	\$15.84

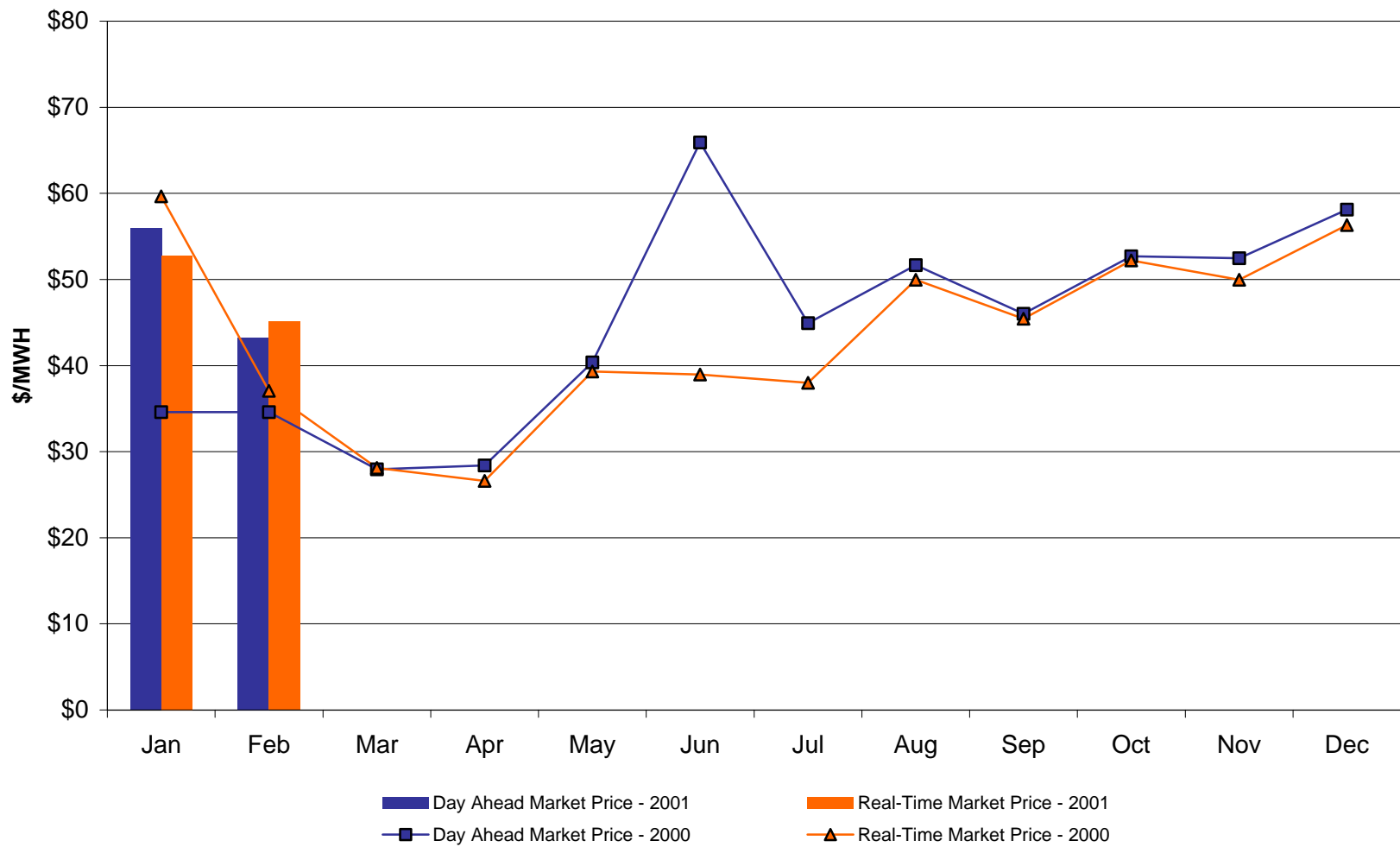
## NYISO Monthly Average LBMP Prices 2000 - 2001



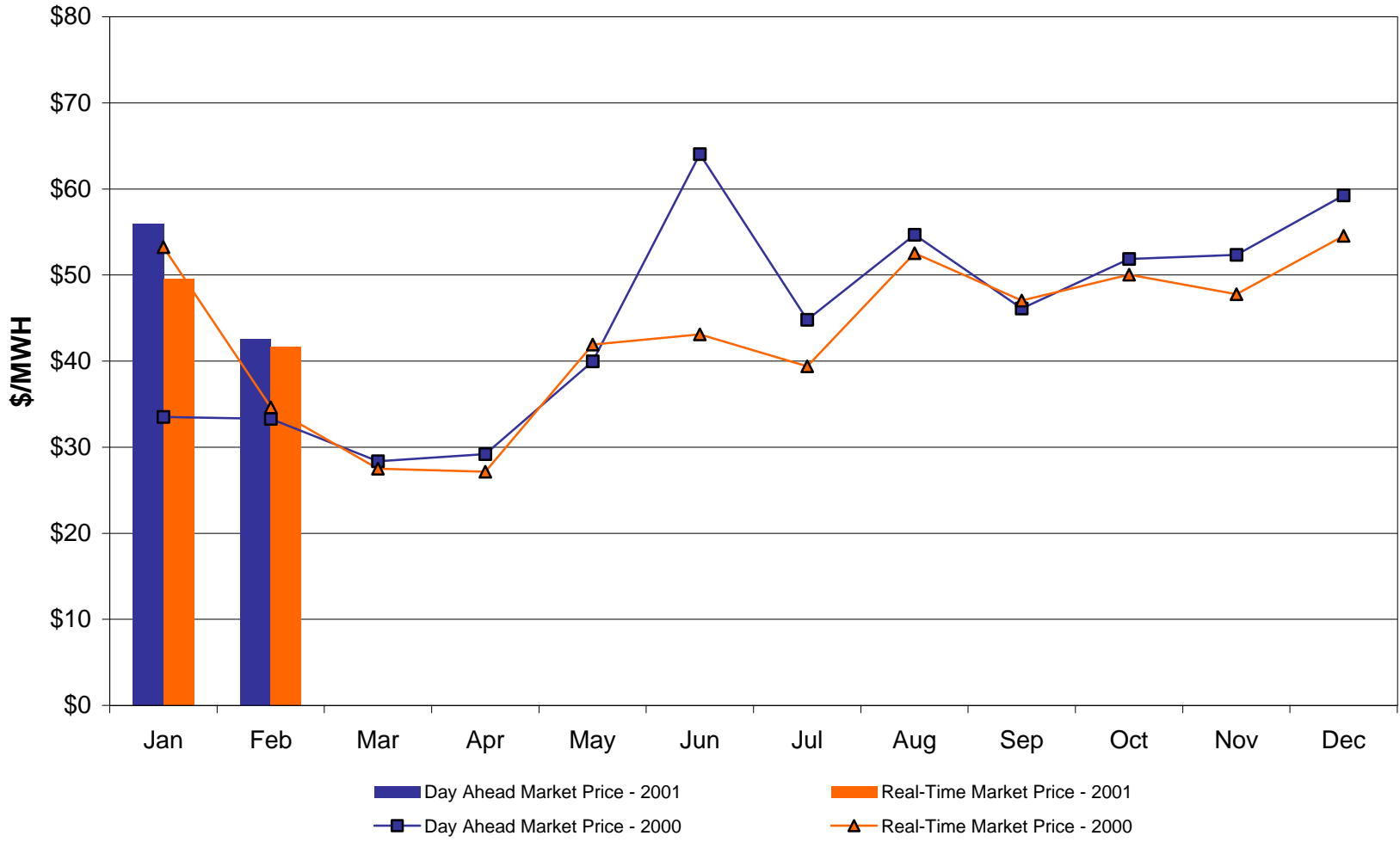
## West zone A Monthly Average LBMP Prices 2000 - 2001



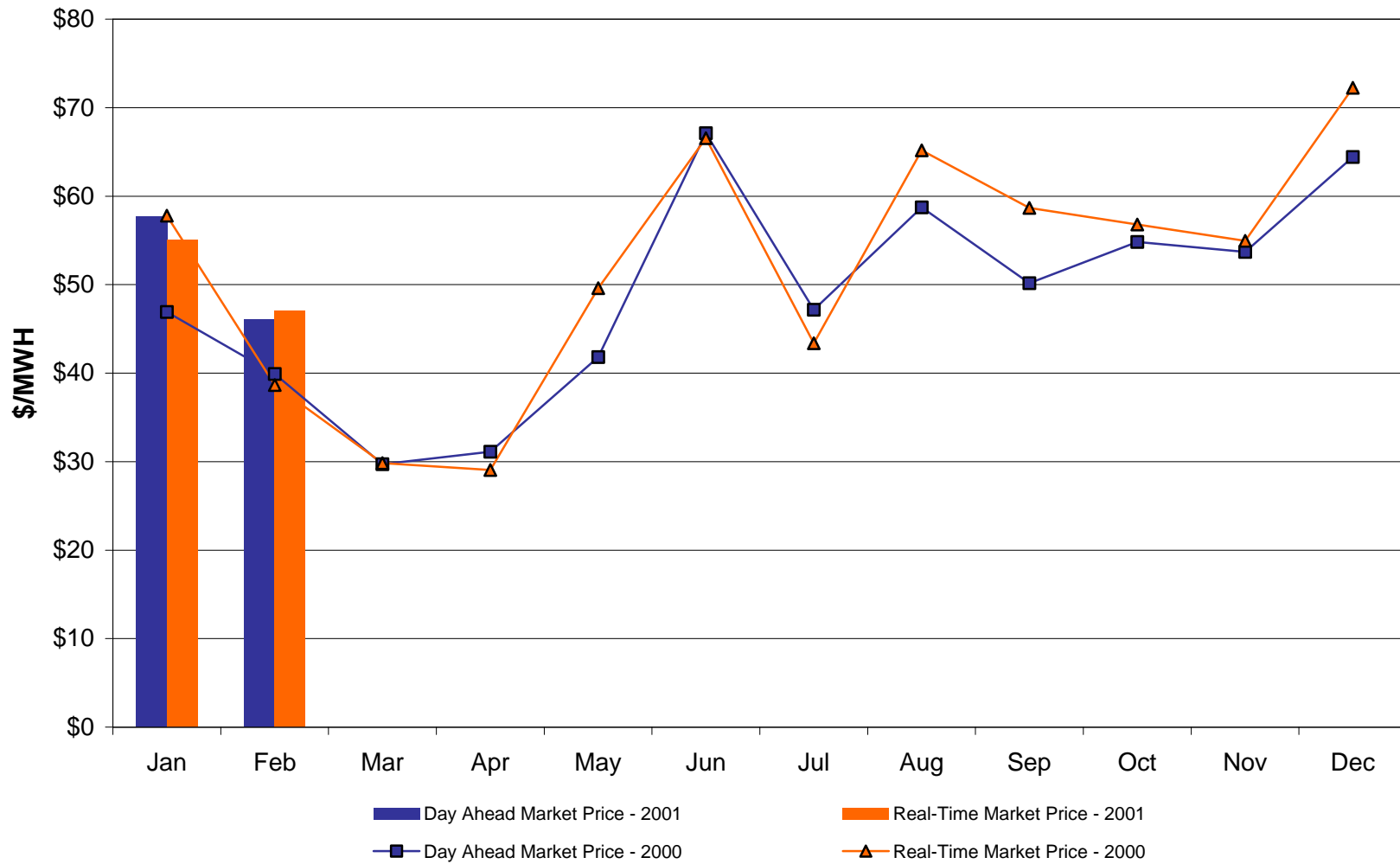
## Capital zone F Monthly Average LBMP Prices 2000 - 2001



## Hudson Valley zone G Monthly Average LBMP Prices 2000 - 2001

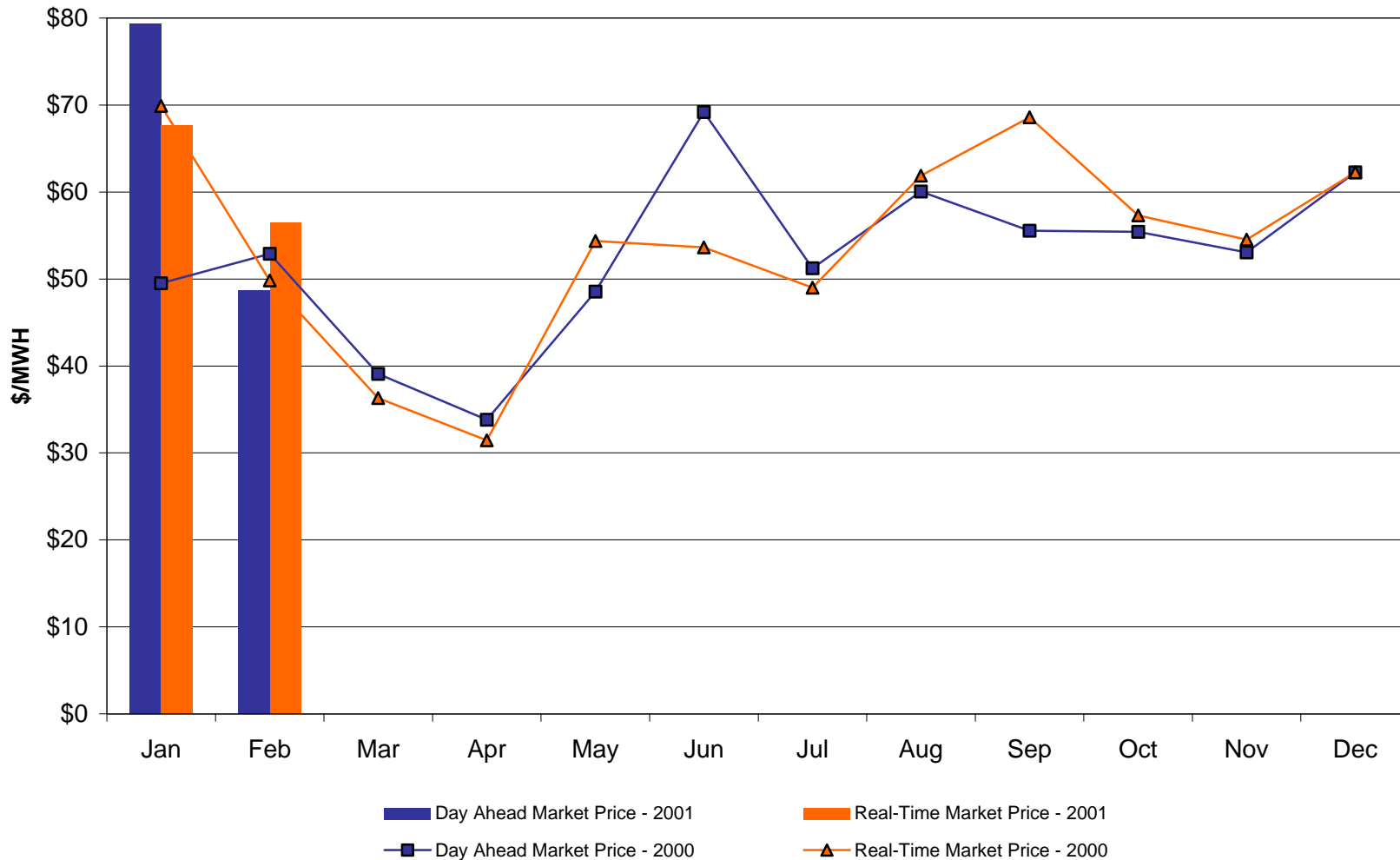


## NYC zone J Monthly Average LBMP Prices 2000 - 2001

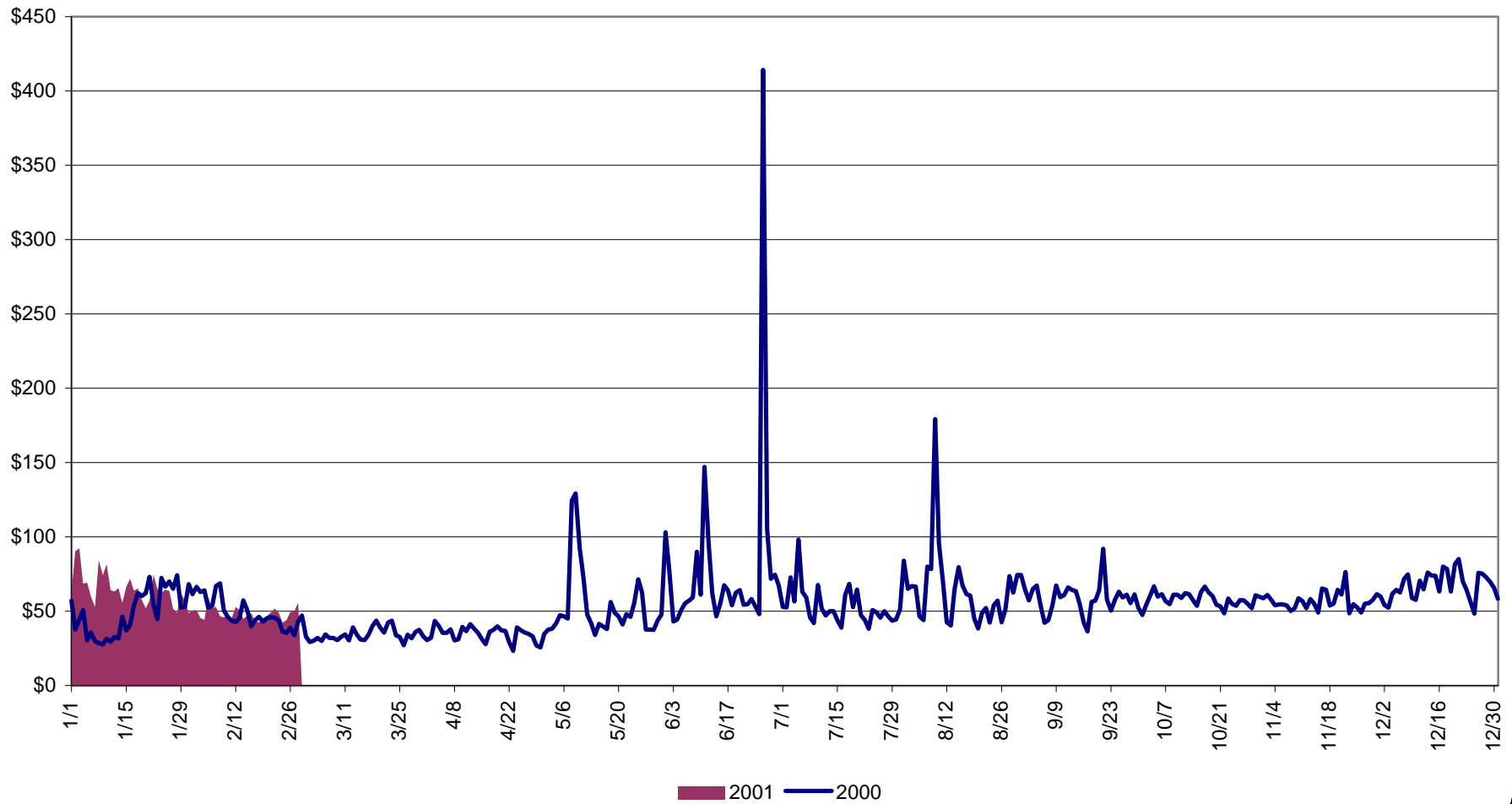




## Long Island zone K Monthly Average LBMP Prices 2000 - 2001



**Average Daily LBMP Customer Price**  
2000 Annual Average \$57.81/MWH  
Jan to Feb 2000 Average \$50.13/MWH  
Jan to Feb 2001 Average \$57.86/MWH



### NYISO Markets 2001 Energy Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<b><u>DAY AHEAD LBMP</u></b>												
Unweighted Price	\$56.41	\$42.09										
Standard Deviation	\$17.87	\$9.65										
Load Wtg.Price	\$58.34	\$43.25										
<b><u>REAL TIME LBMP</u></b>												
Unweighted Price	\$50.15	\$41.84										
Standard Deviation	\$19.32	\$22.21										
Load Wtg.Price	\$51.66	\$42.94										
<b><u>BALANCING MARKET LBMP</u></b>												
Unweighted Price	\$54.40	\$47.43										
Standard Deviation	\$16.85	\$15.62										
Load Wtg.Price	\$55.95	\$48.86										
Average Daily Energy Sendout/Month GWh	443	434										

### NYISO Markets 2000 Energy Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<b><u>DAY AHEAD LBMP</u></b>												
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
<b><u>REAL TIME LBMP</u></b>												
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
<b><u>BALANCING MARKET LBMP</u></b>												
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
Average Daily Energy Sendout/Month GWh	444	431	404	391	400	456	450	468	432	399	415	450

## NYISO Markets 2001 Liquidity Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<b><u>LIQUIDITY - By Market</u></b>												
DAM LSE Internal LBMP Energy Sales	41%	39%										
DAM External TC LBMP Energy Sales	3%	2%										
DAM Bilateral - Internal Bilaterals	50%	51%										
DAM Bilateral - Import/Non-LBMP Market Bilaterals	1%	1%										
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%										
DAM Bilateral - Wheel Through Bilaterals	4%	6%										
<b>Day Ahead Market</b>	<b>100%</b>	<b>100%</b>										
Balancing LSE Internal LBMP Energy Sales	63%	16%										
Balancing External TC LBMP Energy Sales	56%	79%										
Balancing Bilateral - Internal Bilaterals	-8%	-1%										
Balancing Bilateral - Import/Non-LBMP Market Bilaterals	2%	22%										
Balancing Bilateral - Export/Non-LBMP Market Bilaterals	0%	0%										
Balancing Bilateral - Wheel Through Bilaterals	-13%	-16%										
<b>Balancing Market</b>	<b>100%</b>	<b>100%</b>										
<b><u>LIQUIDITY - All Markets</u></b>												
LBMP	45%	42%										
Internal Bilaterals	49%	51%										
Import Bilaterals	1%	1%										
Export Bilaterals	1%	1%										
Wheels Through	4%	5%										
<b>Market Share of Total Load</b>												
Day Ahead Market	97.71%	98.02%										
Balancing Market	2.29%	1.98%										
<b>Total MWH</b>	<b>14,684,835</b>	<b>13,202,343</b>										

## NYISO Markets 2000 Liquidity Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<b><u>LIQUIDITY - All Markets</u></b>												
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%
<b>Market Share of Total Load</b>												
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 Market	2.03%	2.15%	2.75%	3.82%	1.48%	1.30%	-1.33%	-2.12%	3.02%	1.71%	3.89%	3.78%
<b>Total MWH</b>	<b>13,979,215</b>	<b>12,933,930</b>	<b>12,616,286</b>	<b>11,800,570</b>	<b>12,940,566</b>	<b>13,964,207</b>	<b>14,199,309</b>	<b>15,011,759</b>	<b>13,321,117</b>	<b>12,516,751</b>	<b>12,635,197</b>	<b>14,740,664</b>

## NYISO Markets 2001 Ancillary Service Statistics

January    February    March    April    May    June    July    August    September    October    November    December

### ANCILLARY SERVICES Day Ahead Market

#### **10 Min Spin**

Unweighted Price	\$2.71	\$2.22
Standard Deviation	\$1.67	\$0.56

#### **10 Min Non Synch**

Unweighted Price	\$1.69	\$2.19
Standard Deviation	\$0.78	\$0.60

#### **30 Min**

Unweighted Price	\$0.60	\$0.89
Standard Deviation	\$0.40	\$0.76

#### **Regulation**

Unweighted Price	\$7.80	\$8.81
Standard Deviation	\$5.50	\$8.56

### ANCILLARY SERVICES Balancing Market

#### **10 Min Spin**

Unweighted Price	\$3.19	\$2.85
Standard Deviation	\$3.95	\$4.04

#### **10 Min Non Synch**

Unweighted Price	\$1.70	\$2.16
Standard Deviation	\$0.92	\$0.74

#### **30 Min**

Unweighted Price	\$0.88	\$0.94
Standard Deviation	\$0.84	\$0.86

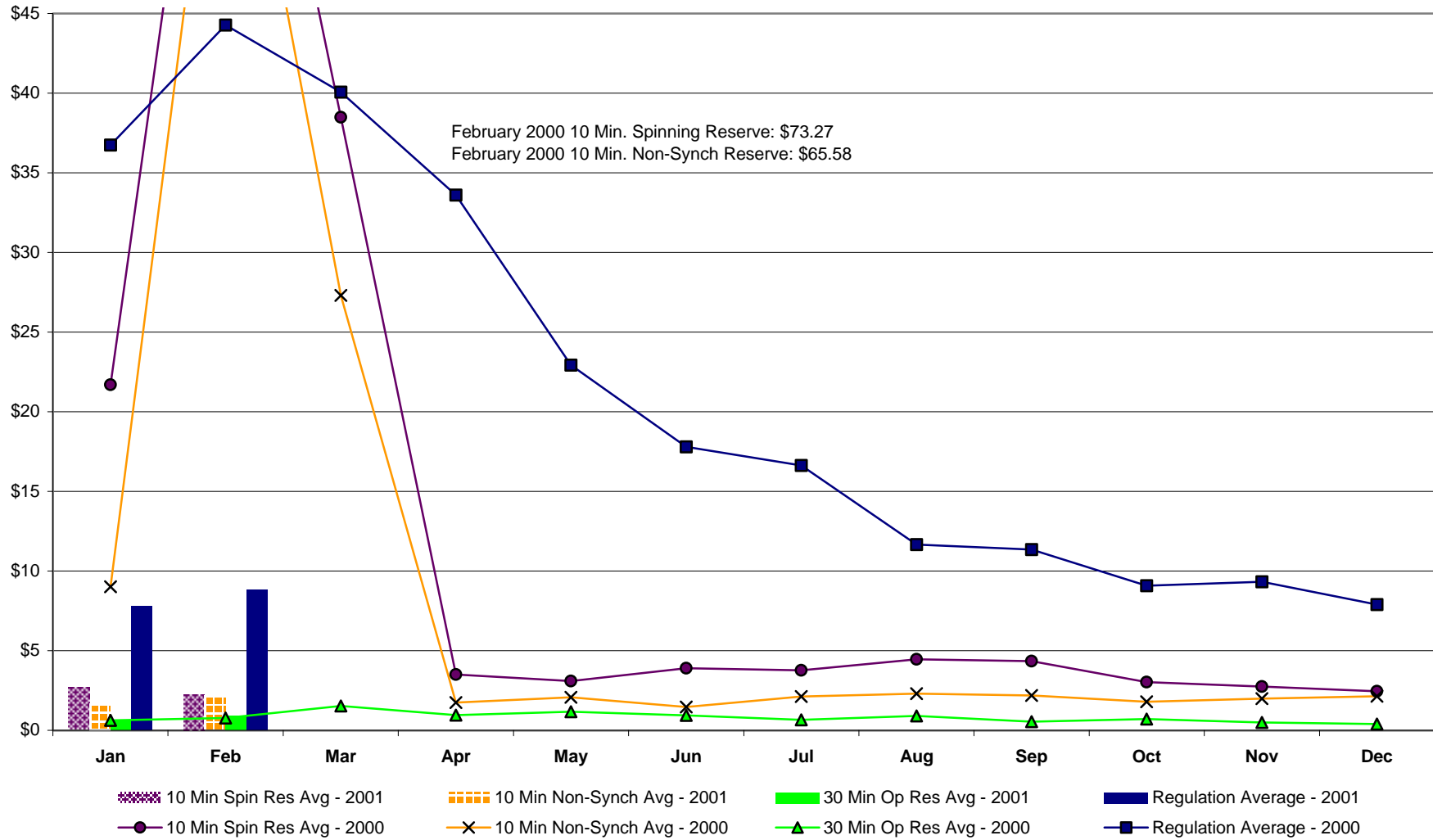
#### **Regulation**

Unweighted Price	\$5.70	\$7.26
Standard Deviation	\$5.97	\$7.83

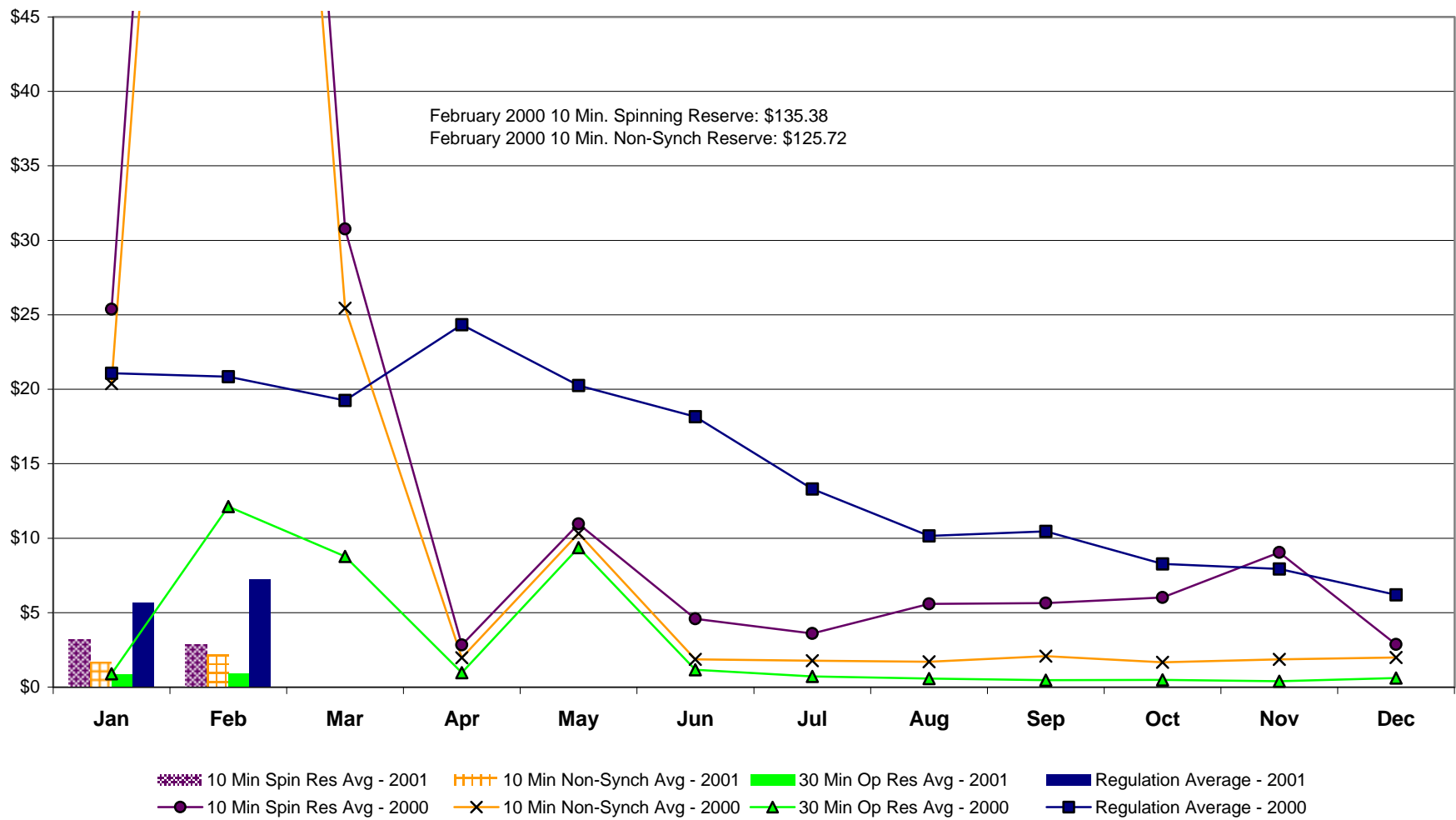
## NYISO Markets 2000 Ancillary Services Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
<b><u>ANCILLARY SERVICES Day Ahead Market</u></b>												
<b>10 Min Spin</b>												
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
<b>10 Min Non Synch</b>												
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
<b>30 Min</b>												
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
<b>Regulation</b>												
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
<b><u>ANCILLARY SERVICES Balancing Market</u></b>												
<b>10 Min Spin</b>												
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
<b>10 Min Non Synch</b>												
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
<b>30 Min</b>												
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
<b>Regulation</b>												
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

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

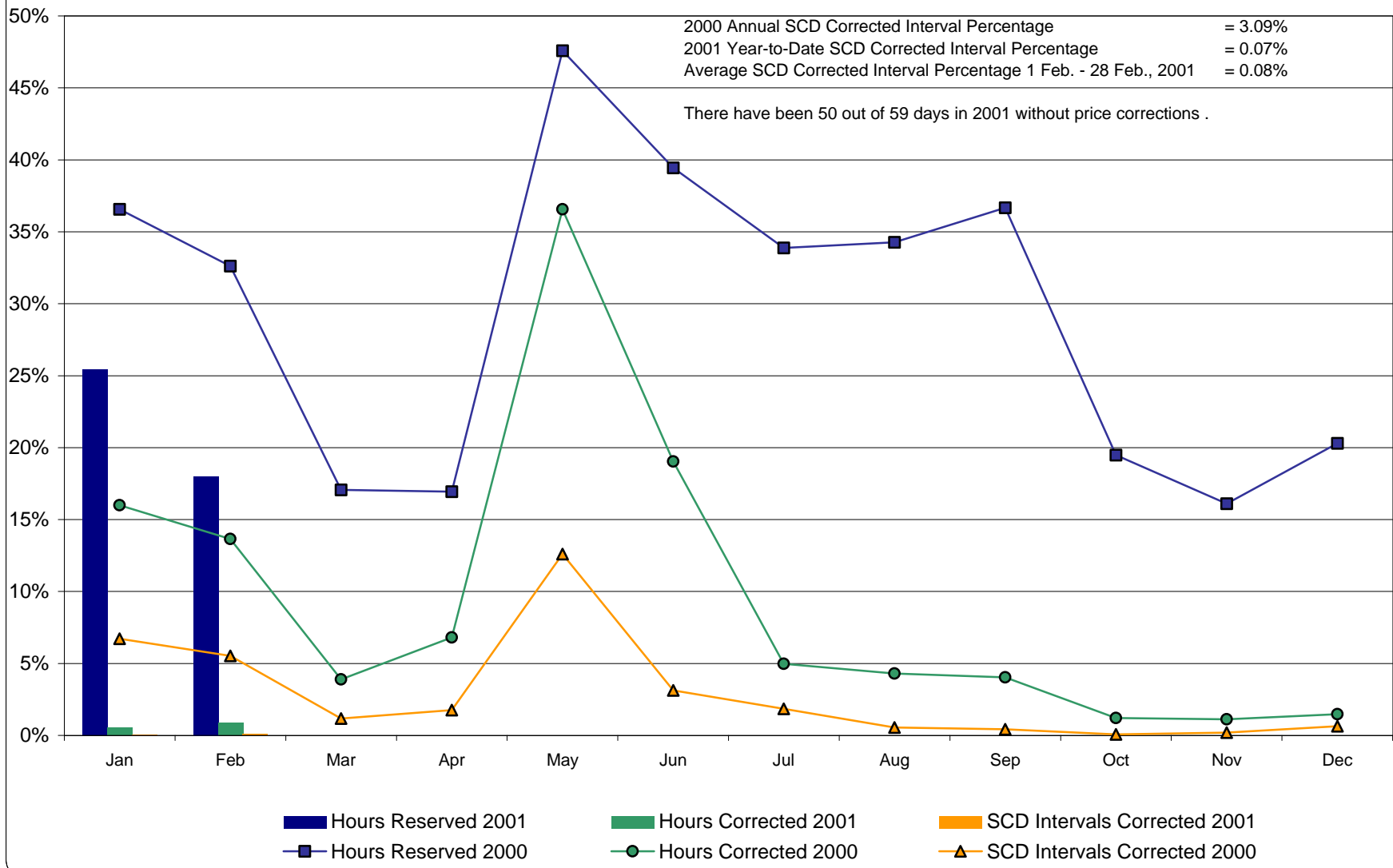


## NYISO Monthly Average Ancillary Service Prices Balancing Market 2000 - 2001

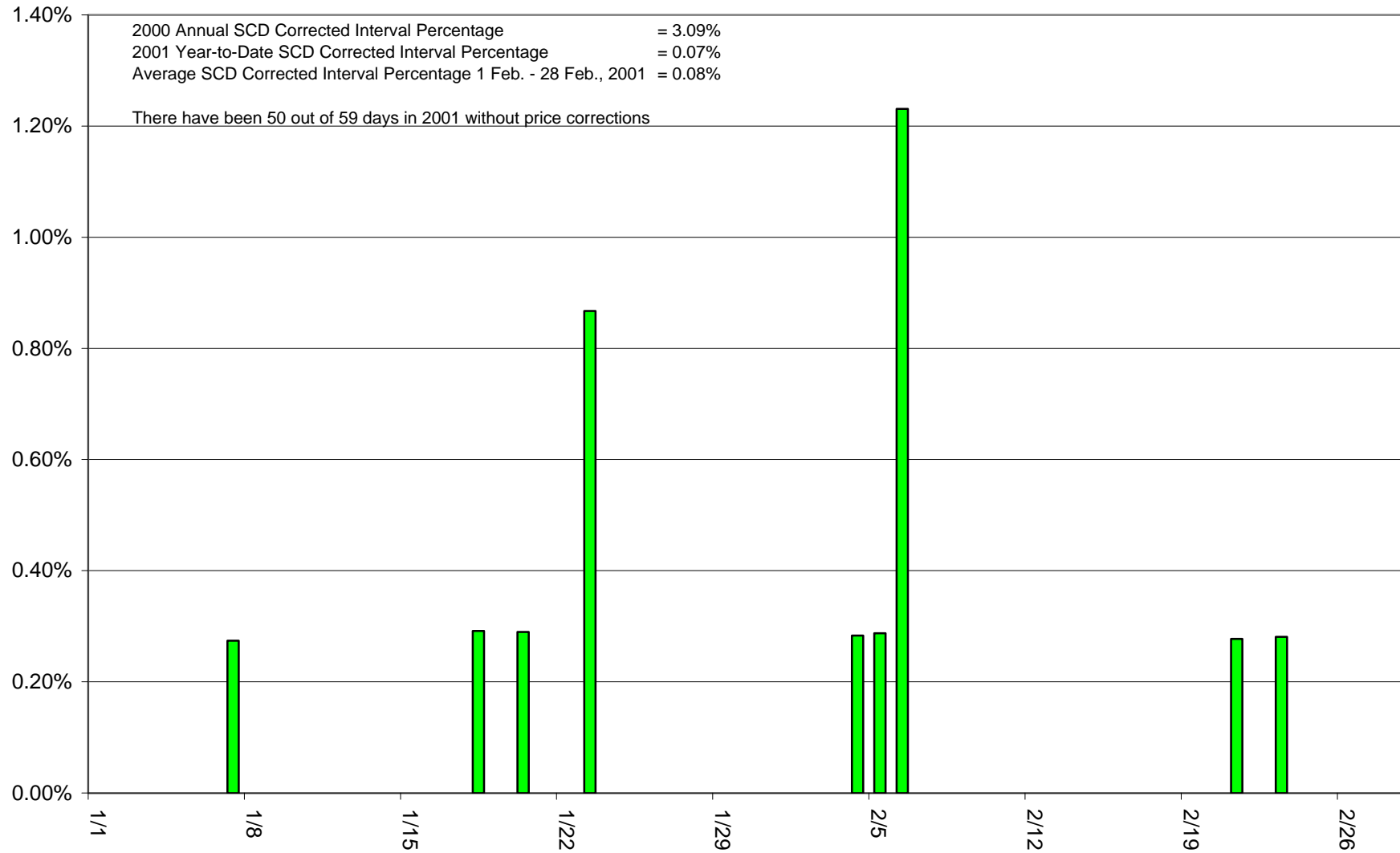




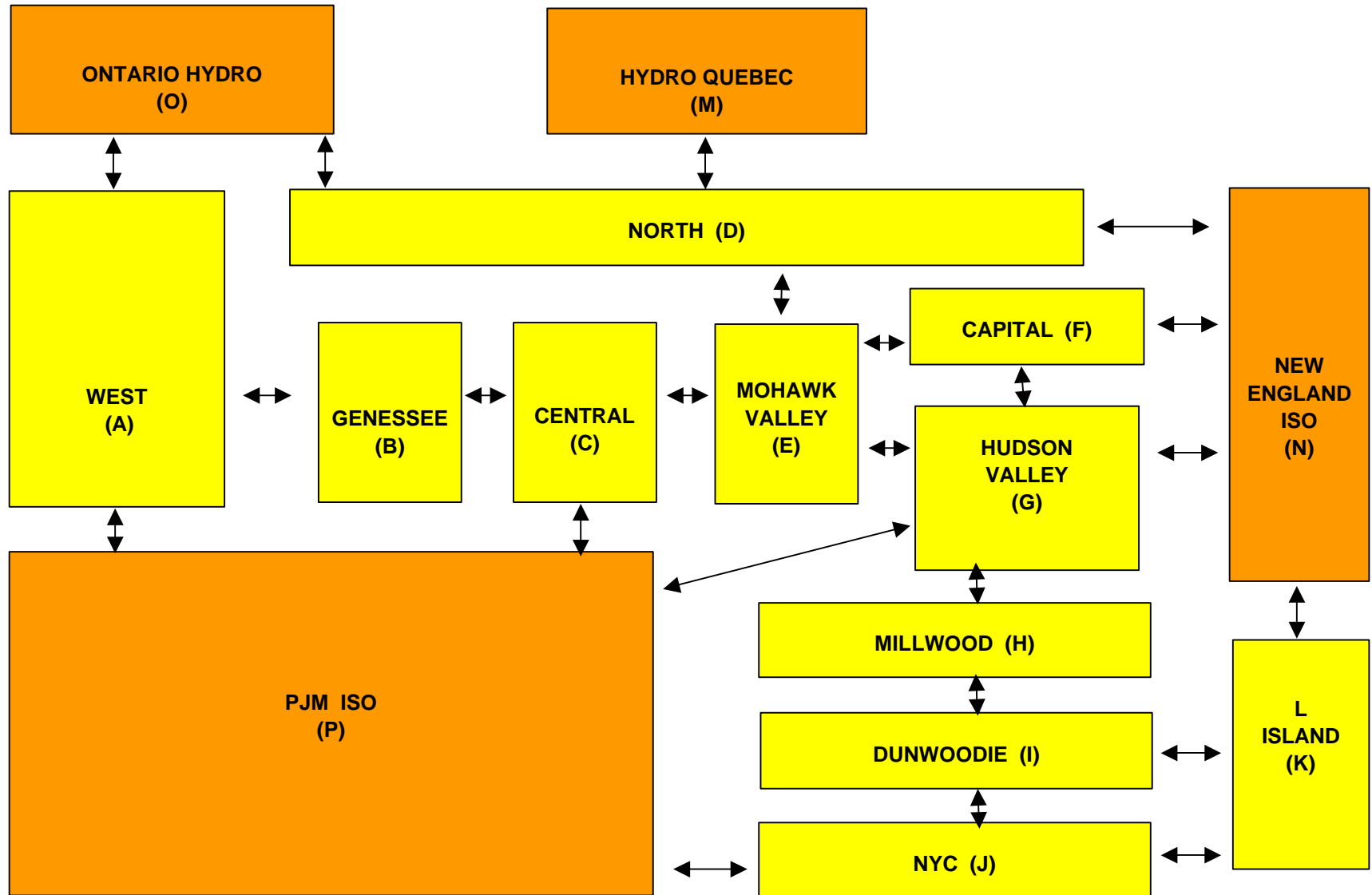
## Percentage of Real-Time Corrections



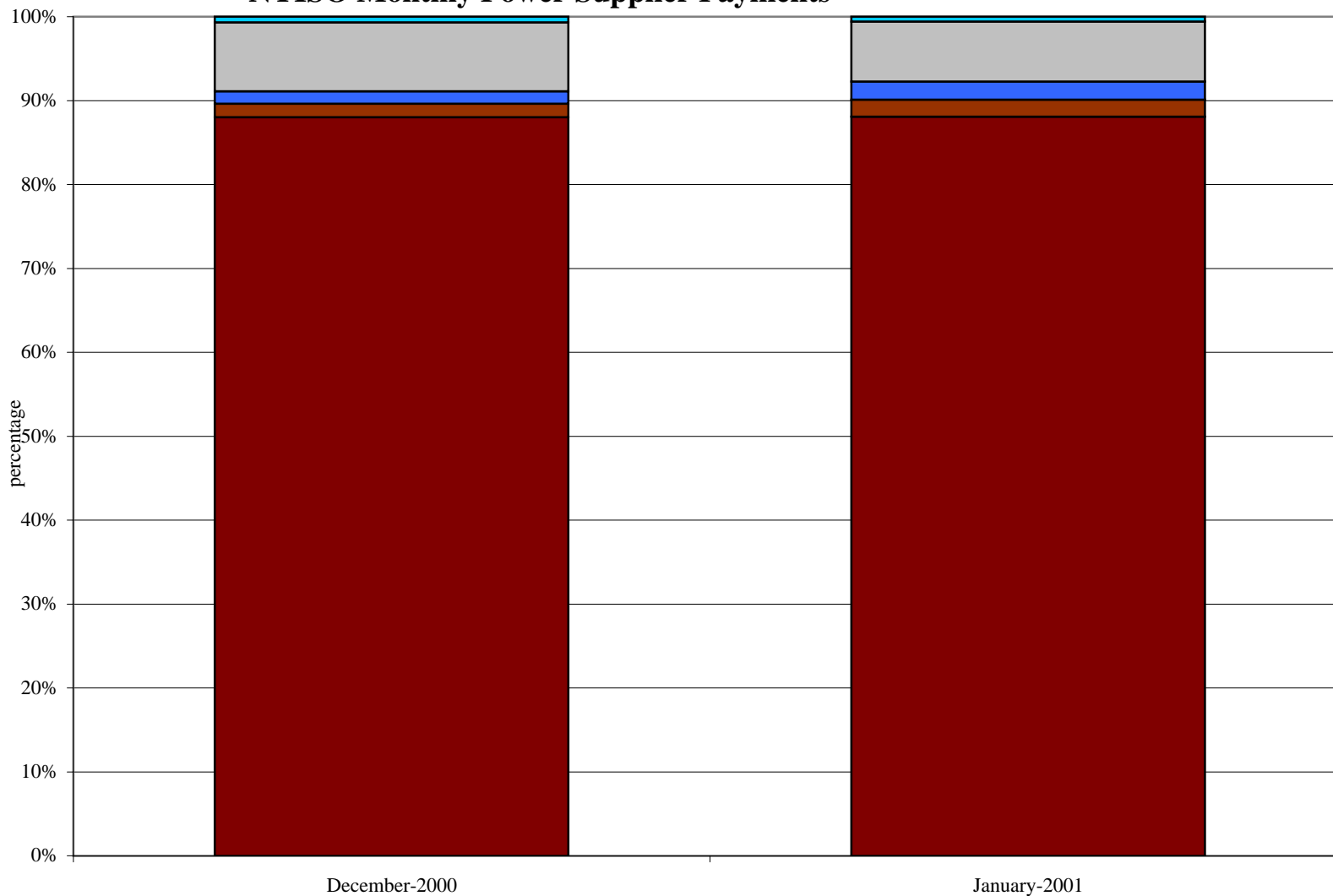
### Percentage of SCD Intervals Needing Correction (01/1/01 - 02/28/01)



# NYISO LBMP ZONES



### NYISO Monthly Power Supplier Payments



	December-2000	January-2001
<span style="color: cyan;">■</span> DAM Contract Balancing	\$3,308,507	\$2,630,146
<span style="color: grey;">■</span> Local Reliability Bid Production	\$40,792,859	\$32,689,317
<span style="color: blue;">■</span> Bid Production Cost Guarantee	\$7,460,528	\$9,906,012
<span style="color: brown;">■</span> Ancillary Services	\$7,993,558	\$9,269,389
<span style="color: darkred;">■</span> LBMP	437,088,783	403,374,561

