

NYISO President's Report

Management Committee Meeting February 4, 2004

Agenda #3

Report Items

- 1) Market Performance Highlights
- 2) SMD 2.0 Update
- 3) Response to FERC SMD Technical Conference Letter
- 4) AMP Project in Legacy System

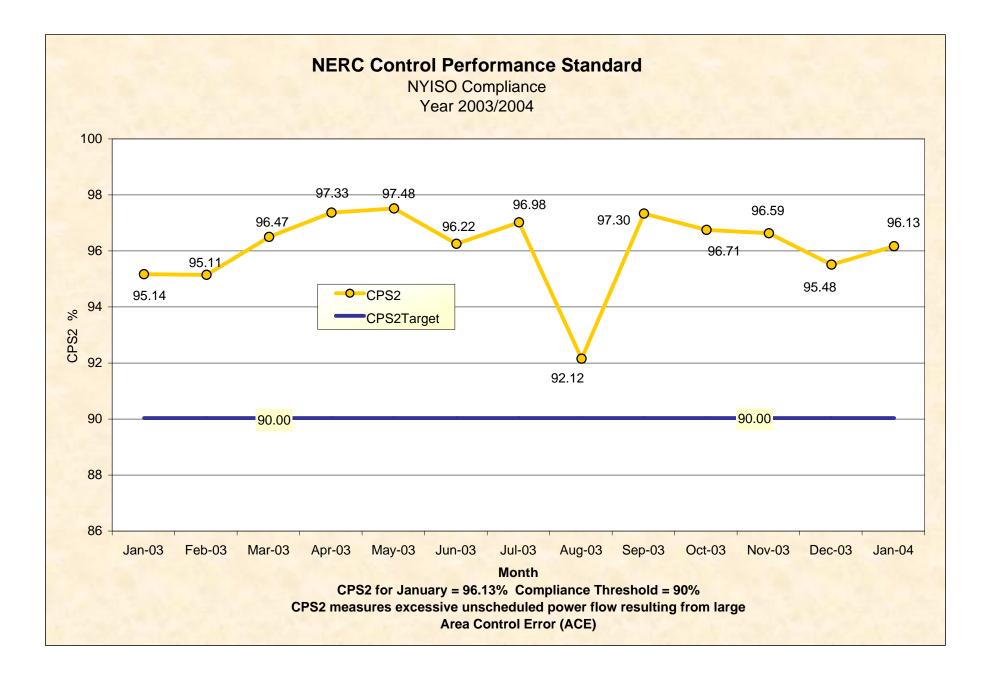
New York Independent System Operator

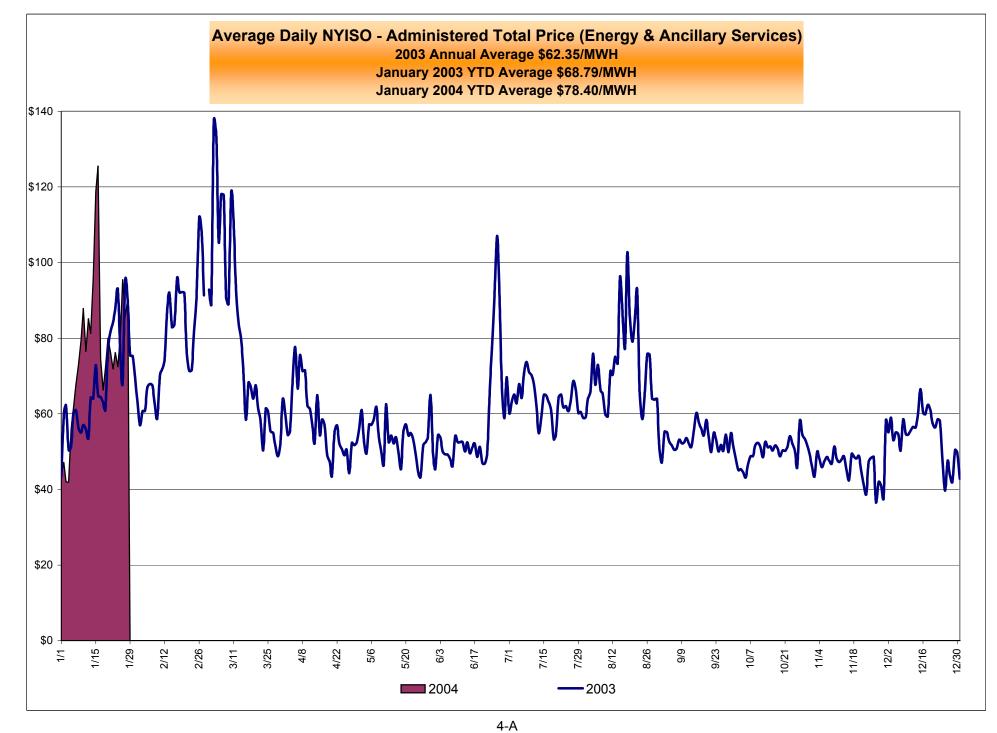
Market Performance Highlights for January, 2004

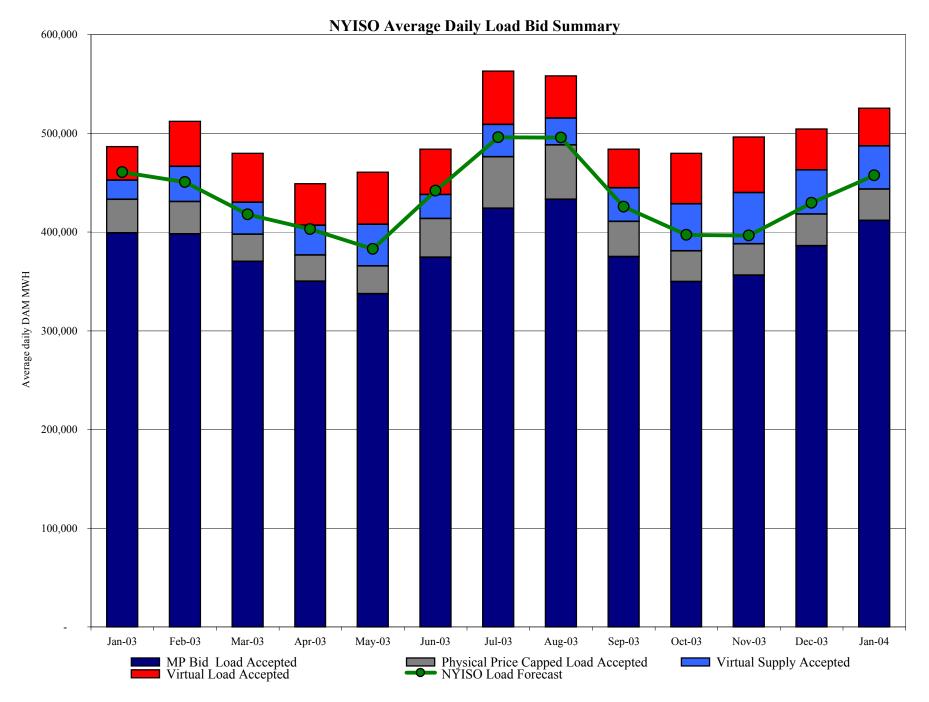
- Energy prices rose during January due to extreme cold weather experienced mid-month
 - New NYCA winter peak loads set
 - > 24,627 MW on Wed, 14 Jan 2004 HB 17
 - > 25,262 MW on Thurs, 15 Jan 2004 HB 18
 - *Record high fuel prices experienced*
 - ▶ \$45.27 / MMBtu for Transco Zone 6 Gas before taxes and delivery

Real-time price corrections rose substantially in January

- Load weighting factors for NYC sub-zones deployed inconsistently between the Dam & RT
- Resulting real-time price changes very small (~\$.01)
- Modeling inconsistency was corrected going forward



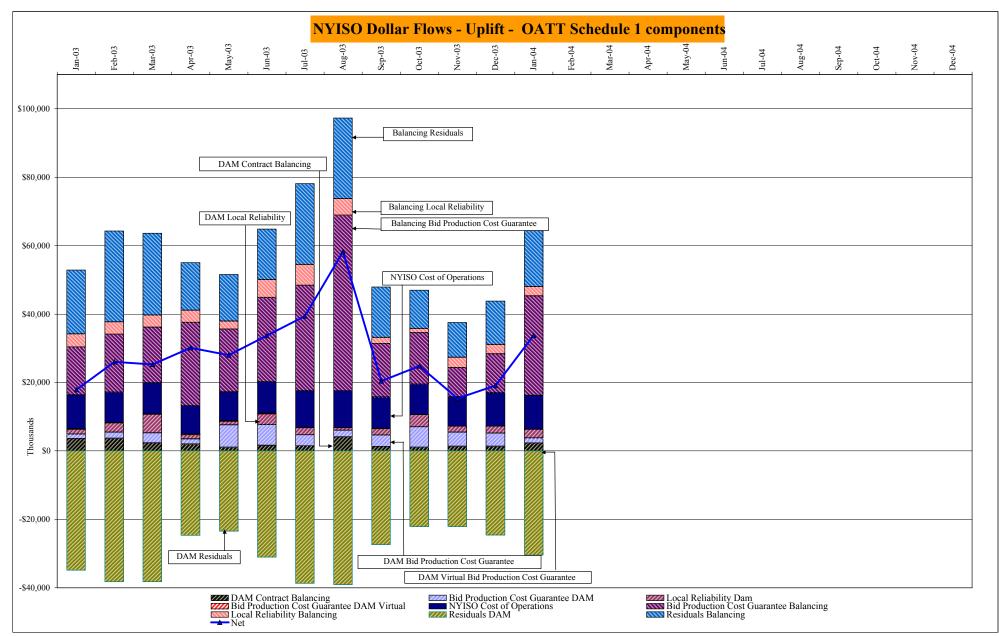




NYISO Administered Total Price (Energy and Ancillary Services) from the LBMP Customer point of view

2004	January	February	March	April	May	June	July	August	September	October	November	December
LBMP	74.95											
NTAC	0.46											
Reserve	0.27											
Regulation	0.20											
NYISO Cost of Operations	0.72											
Uplift	1.66											
Voltage Support and Black Start	0.13											
Avg Monthly Price	78.40											
	,											
Avg YTD Price	78.40											
2003	January	February	March	April	May	June	July	August	September	October	November	December
LBMP	66.33	76.65	78.37	54.27	49.76	57.37	60.11	68.14	50.83	47.02	43.39	52.41
NTAC	0.41	0.35	0.66	0.45	0.44	0.39	0.53	0.36	0.24	0.29	0.51	0.36
Reserve	0.46	0.35	0.45	0.39	0.47	0.24	0.15	0.22	0.13	0.10	0.18	0.16
Regulation	0.26	0.27	0.38	0.31	0.65	0.31	0.19	0.18	0.32	0.49	0.43	0.25
NYISO Cost of Operations	0.68	0.68	0.68	0.68	0.68	0.68	0.69	0.69	0.68	0.69	0.68	0.69
Uplift	0.31	1.08	1.01	1.68	1.48	1.67	1.76	2.69	0.76	1.16	0.42	0.56
Voltage Support and Black Start	0.33	0.33	0.33	0.33	0.34	0.33	0.34	0.34	0.33	0.34	0.34	0.33
Avg Monthly Price								72.61	53.30			
	68.79	79.71	81.88	58.13	53.82	61.00	63.77	72.01	55.50	50.08	45.95	54.76

4**-**B



DAM Contract Balancing amounts are for payments made to generating units go make them whole for being dispatched below their Day-Ahead schedule, as a result of out-of-merit dispatches. DAM Bid Production Cost Guarantees for Virtual Transactions are included in the chart and are shown from the inception of Virtual Transactions. These values are small and cannot be identified on the chart. The value for April 2003 is \$135,233.

DAM residuals are revenue charged or returned to customers due to the under or over collection of funds. On this chart, negative values represent funds returned to Transmission Customers (through Transmission Owners' Transmission Service Charges).

4-C Preliminary data thru 01/28/2004

NYISO Markets Transactions

Transactions by Market 2004	January	February	March	April	May	June	July	August	September	October	November	December
Day Ahead Market MWH	13,454,450											
DAM LSE Internal LBMP Energy Sales	51%											
DAM External TC LBMP Energy Sales	4%											
DAM Bilateral - Internal Bilaterals	42%											
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	1%											
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%											
DAM Bilateral - Wheel Through Bilaterals	1%											
Balancing Energy Market MWH	273,273											
Balancing Energy LSE Internal LBMP Energy Sales	66%											
Balancing Energy External TC LBMP Energy Sales	67%											
Balancing Energy Bilateral - Internal Bilaterals	-28%											
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	1%											
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	0%											
Balancing Energy Bilateral - Wheel Through Bilaterals	-6%											
Transactions Summary 2003												
LBMP	57%											
Internal Bilaterals	41%											
Import Bilaterals	1%											
Export Bilaterals	1%											
Wheels Through	1%											
Market Share of Total Load 2003												
Day Ahead Market	98.0%											
Balancing Energy +	2.0%											
Total MWH	13,727,723											
Average Daily Energy Sendout/Month GWh	464											
Transactions by Market 2003												
Day Ahead Market MWH	14,187,752	12,695,868	13,126,563	11,997,655	12,029,453	13,341,831	15,444,857	15,759,082	13,003,309	12,507,780	12,332,456	13,973,266
DAM LSE Internal LBMP Energy Sales	46%	48%	46%	49%	46%	48%	55%	57%	49%	48%	47%	48%
DAM External TC LBMP Energy Sales	1%	1%	1%	1%	2%	2%	1%	0%	1%	2%	2%	2%
DAM Bilateral - Internal Bilaterals	50%	49%	50%	46%	49%	46%	43%	40%	48%	47%	48%	46%
DAM Bilateral - Importl/Non-LBMP Market Bilaterals	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%
DAM Bilateral - Export/Non-LBMP Market Bilaterals	1%	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
DAM Bilateral - Wheel Through Bilaterals	1%	1%	1%	2%	2%	2%	1%	1%	1%	1%	1%	2%
Balancing Energy Market MWH	347,539	285,381	376,222	235,800	278,939	291,519	208,142	-55,913	394,363	338,562	319,065	385,707
Balancing Energy LSE Internal LBMP Energy Sales	58%	35%	52%	72%	48%	39%	53%	-146%	65%	53%	26%	43%
Balancing Energy External TC LBMP Energy Sales	58%	80%	95%	73%	69%	78%	79%	242%	44%	61%	77%	68%
Balancing Energy Bilateral - Internal Bilaterals	-6%	-10%	-2%	0%	-5%	5%	-2%	-75%	1%	3%	0%	-2%
Balancing Energy Bilateral - Importl/Non-LBMP Market Bilaterals	4%	1%	1%	1%	1%	0%	0%	2%	0%	0%	0%	0%
Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals	0%	0%	-38%	0%	0%	0%	0%	-14%	0%	0%	0%	0%
Balancing Energy Bilateral - Wheel Through Bilaterals	-14%	-7%	-8%	-46%	-14%	-23%	-31%	-109%	-10%	-16%	-3%	-9%

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

* The signs for the detail section intuitively reflect the direction of power flow eliminating the use of double negatives when Balancing Energy is negative.

49%

48%

1%

1%

1%

97.6%

2.4%

458

14,535,291 12,981,249

50%

47%

1%

1%

1%

97.8%

2.2%

450

49%

48%

1%

1%

1%

97.2%

2.8%

418

52%

45%

1%

1%

1%

98.1%

1.9%

393

49%

48%

0%

1%

1%

97.7%

2.3%

382

52%

46%

0%

1%

1%

97.9%

2.1%

432

56%

42%

0%

1%

1%

98.7%

1.3%

497

13,502,785 12,233,455 12,308,392 13,633,350 15,652,999 15,703,169 13,397,672 12,846,342 12,651,521 14,358,973

58%

40%

0%

1%

1%

-0.4% *

498

100.4%

51%

46%

0%

1%

0%

97.1%

2.9%

433

Notes: Percent totals may not equal 100% due to rounding.

52%

46%

0%

1%

1%

97.4%

2.6%

397

Virtual Transactions are not reflected in this chart.

51%

47%

0%

1%

1%

97.5%

2.5%

402

52%

45%

0%

1%

2%

97.3%

2.7%

435

Transactions Summary 2002

Market Share of Total Load 2002

Average Daily Energy Sendout/Month GWh

Internal Bilaterals

Import Bilaterals

Export Bilaterals

Wheels Through

Day Ahead Market

Balancing Energy +

Total MWH

LBMP

NYISO Markets 2004 Energy Statistics

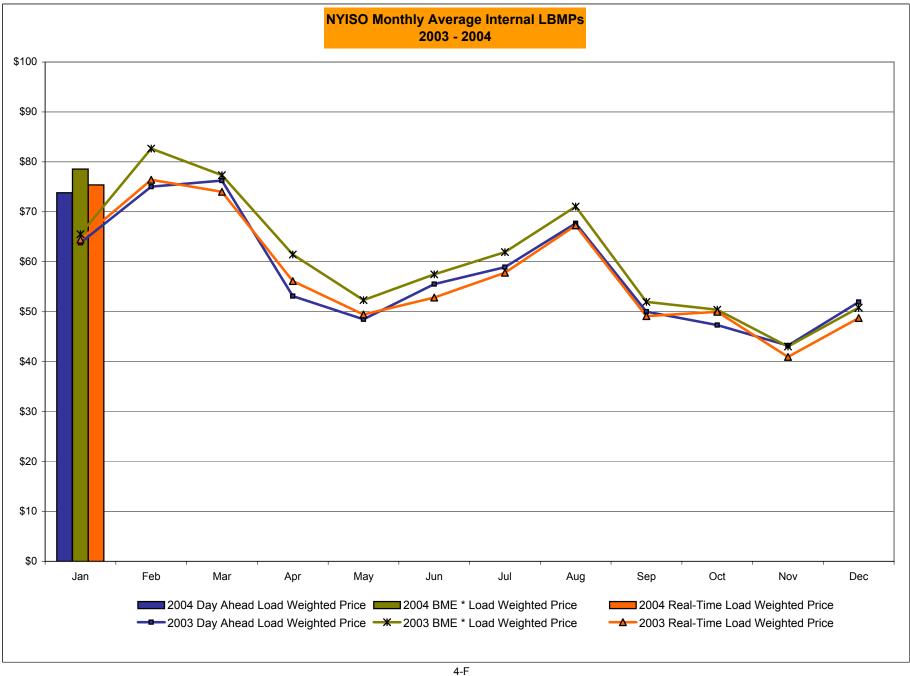
	January	February	March	April	May	June	July	August	September	October	November	December
DAY AHEAD LBMP	-	-			-		-	-				
Unweighted Price	\$70.86											
Standard Deviation	\$26.38											
Load Wtg.Price	\$73.84											
BME * LBMP												
Unweighted Price	\$75.50											
Standard Deviation	\$38.02											
Load Wtg.Price	\$78.58											
REAL TIME LBMP												
Unweighted Price	\$72.12											
Standard Deviation	\$32.90											
Load Wtg.Price	\$75.38											
Average Daily Energy Sendout/Month GWh	464											

NYISO Markets 2003 Energy Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
DAY AHEAD LBMP Unweighted Price	\$61.33	\$72.81	\$73.18	\$51.58	\$46.43	\$51.45	\$57.10	\$64.94	\$48.29	\$45.81	\$41.58	\$50.07
Standard Deviation	\$20.09	\$21.12	\$29.70	\$12.47	\$14.03	\$21.27	\$11.88	\$18.06	\$11.04	\$10.91	\$12.06	\$14.92
Load Wtg.Price	\$63.81	\$75.03	\$76.25	\$53.14	\$48.47	\$55.52	\$58.93	\$67.71	\$50.02	\$47.34	\$43.21	\$51.95
BME * LBMP												
Unweighted Price	\$63.19	\$80.25	\$74.27	\$59.22	\$50.27	\$53.84	\$59.99	\$67.63	\$50.34	\$48.74	\$41.01	\$48.73
Standard Deviation	\$25.43	\$41.53	\$32.77	\$25.00	\$16.37	\$22.27	\$14.82	\$72.20	\$14.01	\$15.35	\$18.51	\$18.89
Load Wtg.Price	\$65.54	\$82.65	\$77.33	\$61.45	\$52.31	\$57.49	\$61.94	\$71.07	\$51.96	\$50.39	\$43.05	\$50.81
REAL TIME LBMP												
Unweighted Price	\$61.53	\$74.03	\$70.54	\$53.94	\$46.74	\$48.96	\$55.94	\$64.32	\$47.24	\$48.57	\$38.72	\$46.45
Standard Deviation	\$30.16	\$37.46	\$37.97	\$28.70	\$23.03	\$21.57	\$13.68	\$34.91	\$15.52	\$25.74	\$22.35	\$20.55
Load Wtg.Price	\$64.43	\$76.41	\$74.02	\$56.14	\$49.44	\$52.82	\$57.79	\$67.27	\$49.12	\$49.98	\$40.96	\$48.73
Average Daily Energy Sendout/Month GWh	458	450	418	393	382	432	497	498	433	397	402	435

* Commonly referred as Hour Ahead Market (HAM)

4-E Data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/28/04



* Commonly referred to as Hour Ahead Market (HAM)

Data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/28/04

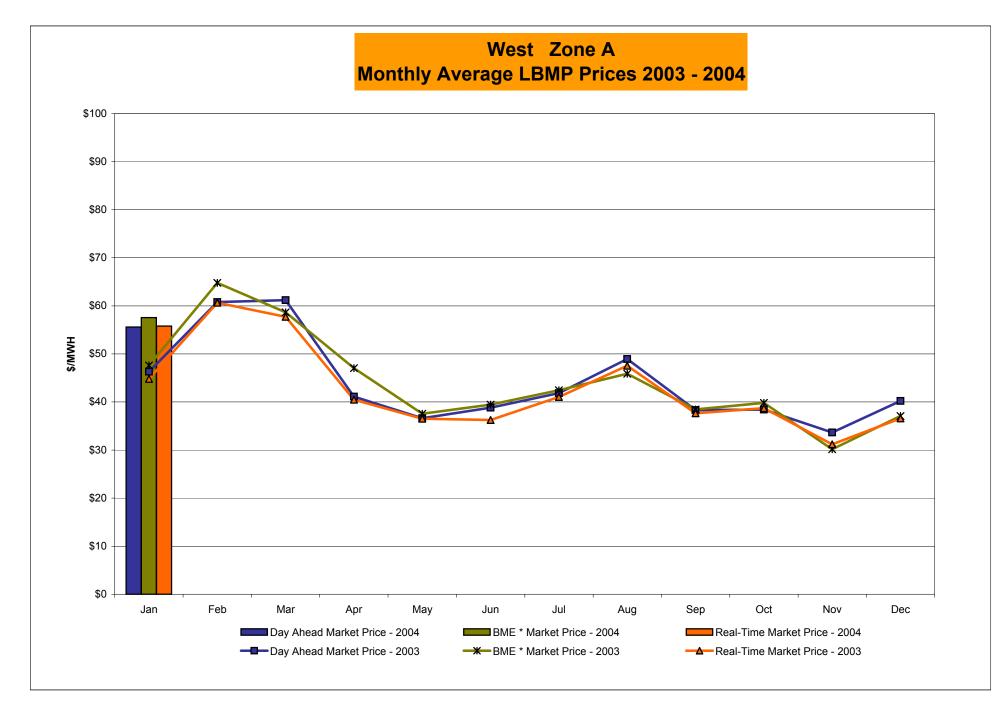
January 2004 Zonal Statistics for NYISO (\$/MWH)

	WEST Zone A	GENESEE Zone B	NORTH Zone D	CENTRAL Zone C	MOHAWK VALLEY Zone E	CAPITAL Zone F	HUDSON VALLEY Zone G	MILLWOOD Zone H	DUNWOODIE Zone I	NEW YORK CITY Zone J	LONG ISLAND Zone K
DAY AHEAD LBMP											
Unweighted Price	55.60	59.16	61.08	59.08	61.40	63.22	63.23	63.40	64.31	91.14	74.37
Standard Deviation	19.03	19.87	20.53	19.44	20.50	20.99	21.09	21.13	21.47	44.58	23.16
BME * LBMP											
Unweighted Price	57.56	60.25	66.21	63.64	66.40	67.58	68.76	68.52	69.51	90.34	93.14
Standard Deviation	27.36	27.78	31.24	27.35	28.77	29.68	30.27	30.14	30.63	49.82	134.42
REAL TIME LBMP											
Unweighted Price	55.79	59.95	60.70	58.60	61.34	64.05	61.72	62.40	63.42	93.53	74.76
Standard Deviation	26.21	28.01	28.08	26.87	28.24	29.47	28.36	28.61	29.08	58.33	31.41

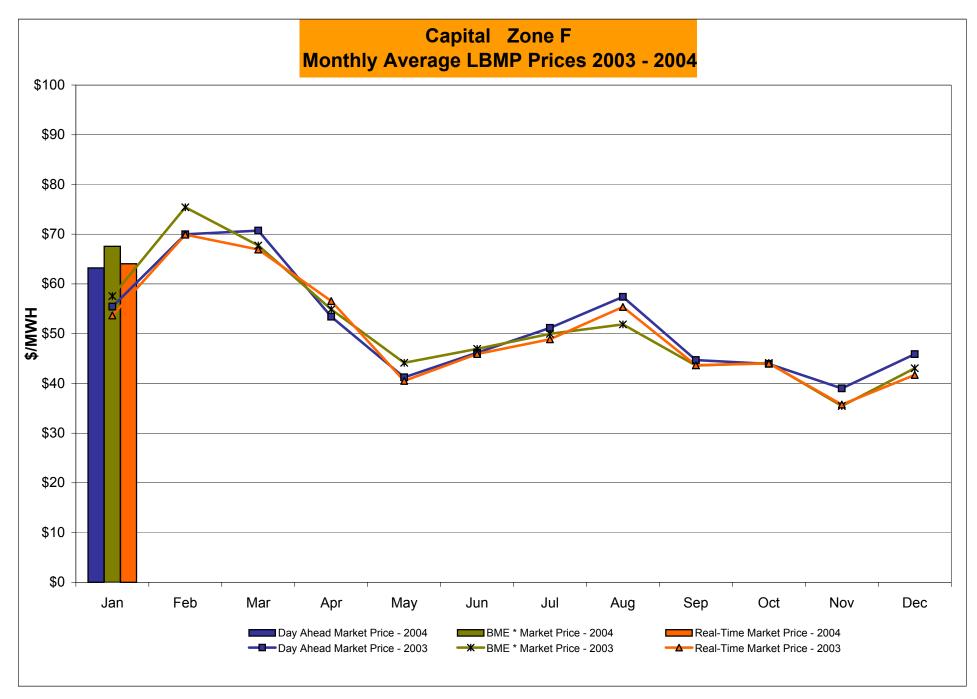
	ONTARIO HYDRO	HYDRO QUEBEC	PJM	NEW ENGLAND
	Zone O	Zone M	Zone P	Zone N
DAY AHEAD LBMP				
Unweighted Price	54.59	60.84	57.21	66.17
Standard Deviation	18.57	20.37	20.33	26.74
BME * LBMP				
Unweighted Price	53.55	86.24	60.27	75.21
Standard Deviation	64.21	140.01	49.88	47.68
REAL TIME LBMP				
Unweighted Price	52.87	80.27	54.58	68.10
Standard Deviation	63.17	138.88	47.05	45.15

*Commonly Referred as Hour Ahead Market (HAM)

4-G BME data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/29/04



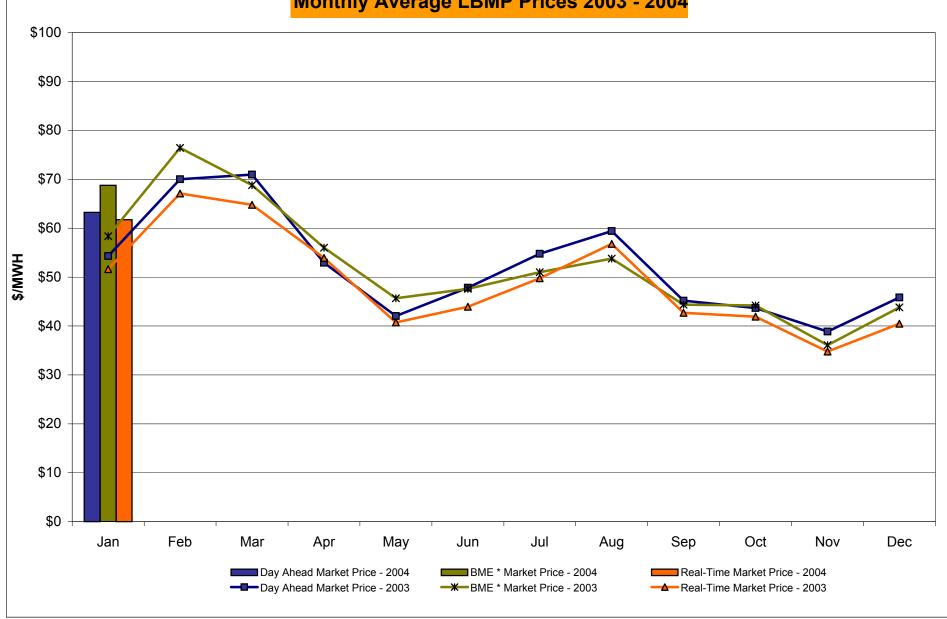
4-H BME data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/29/04



4-I BME data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/29/04

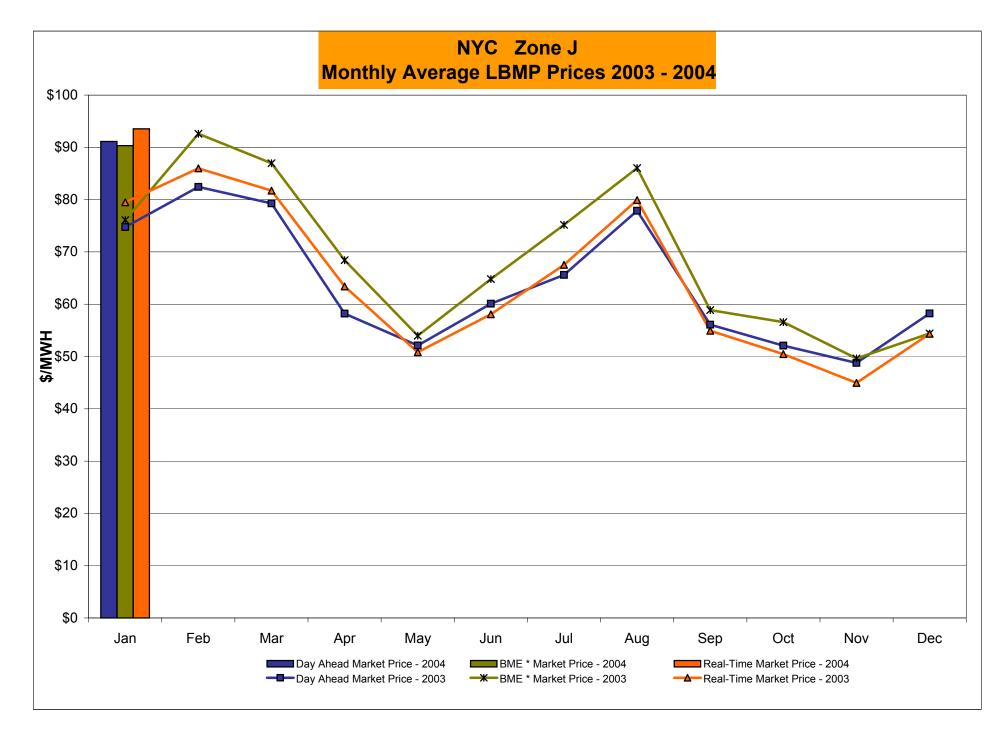
* Commonly referred to as Hour Ahead Market (HAM)

Hudson Valley Zone G Monthly Average LBMP Prices 2003 - 2004



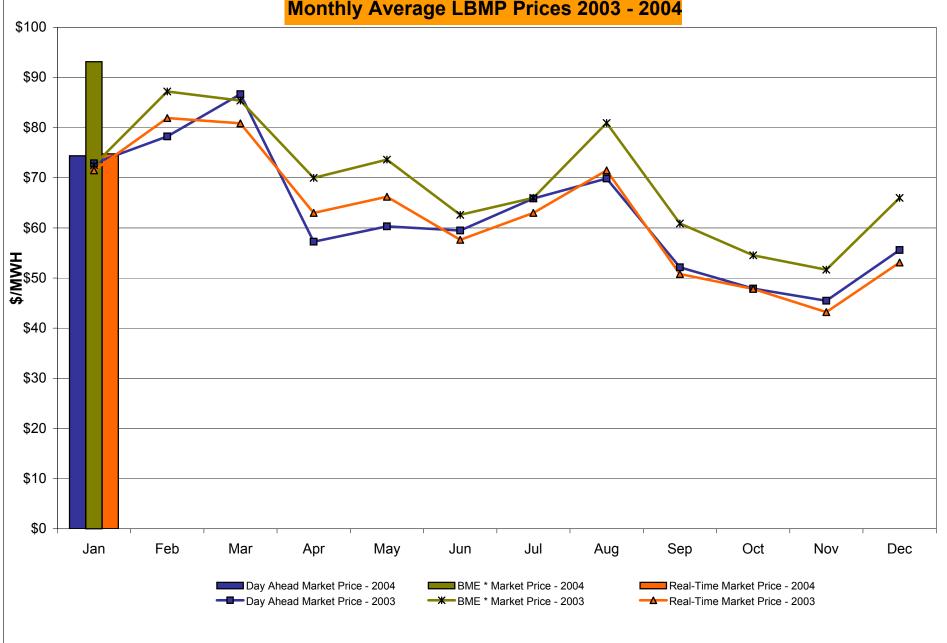
4-J BME data missing from 1/14 hr 20 thru 1/15 hr 00 Preliminary data thru 1/29/04

* Commonly referred to as Hour Ahead Market (HAM)

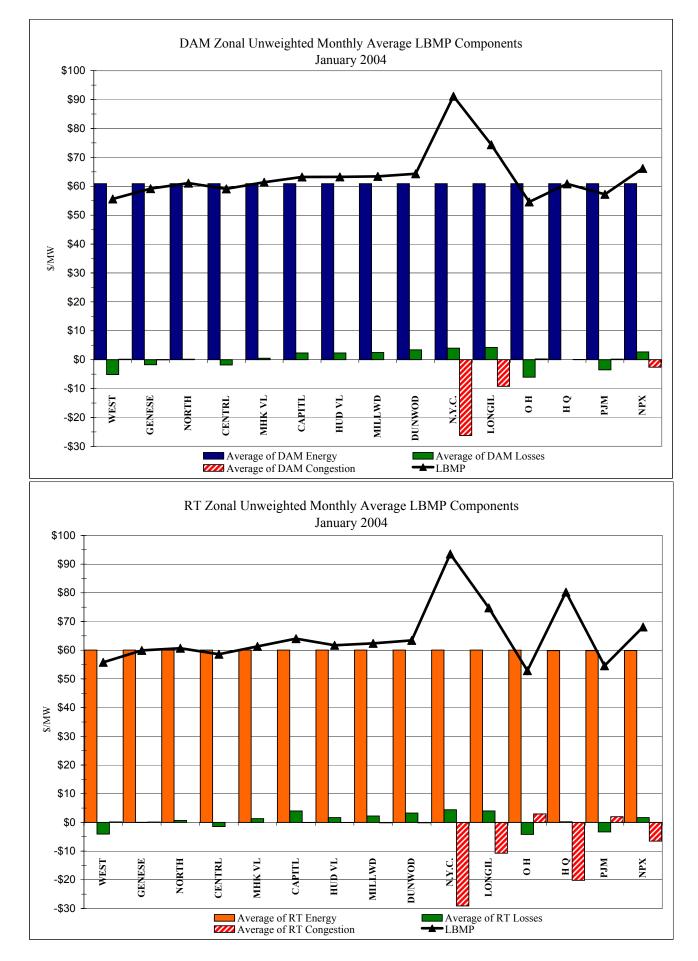


* Commonly referred to as Hour Ahead Market (HAM)

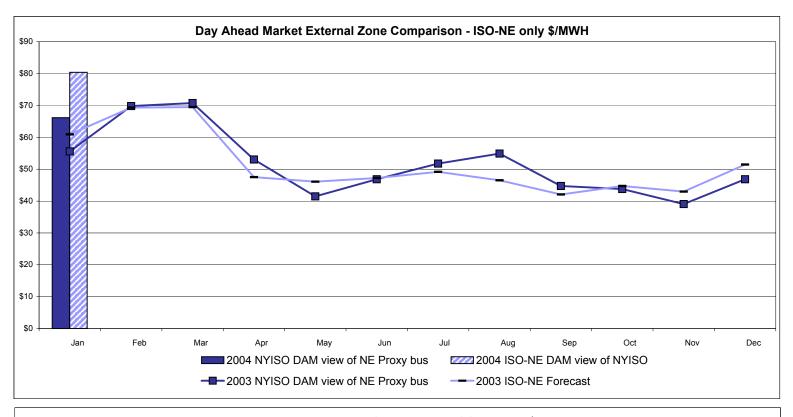
Long Island Zone K Monthly Average LBMP Prices 2003 - 2004

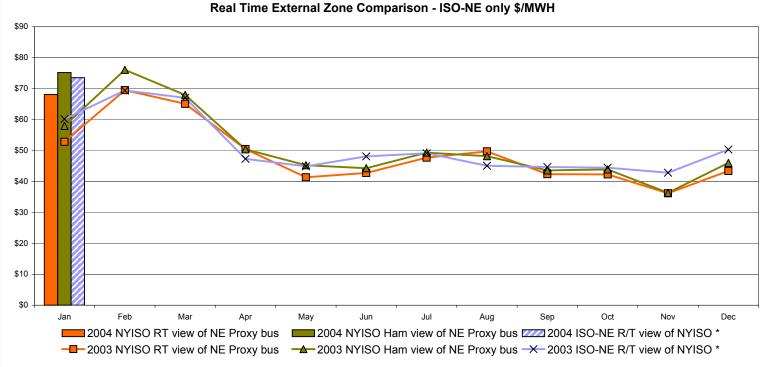


* Commonly referred to as Hour Ahead Market (HAM)



External Comparison ISO-NE



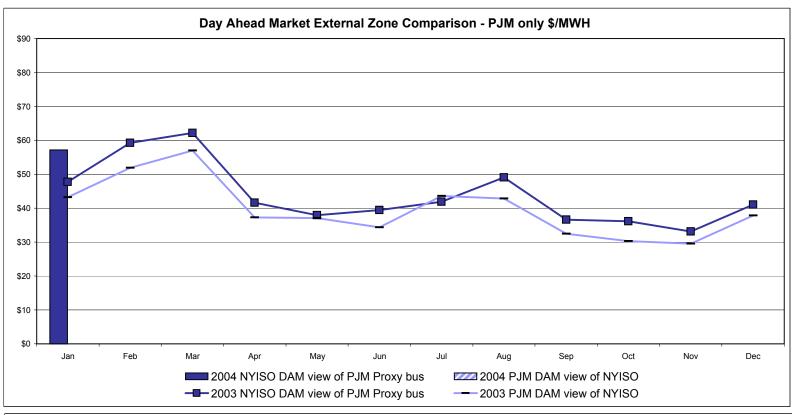


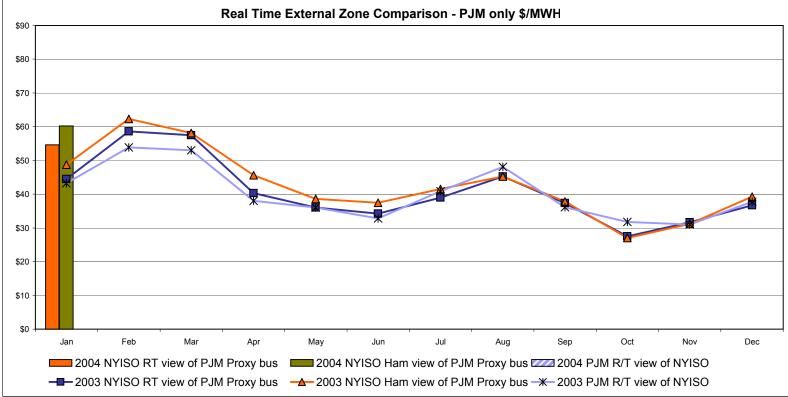
Note:

ISO-NE Forecast is an advisory posting @ 18:00 day before

* Effective 3/1/2003 SMD implemented by ISO-NE. The DAM and R/T prices at the Roseton interface are now used.

External Comparison PJM

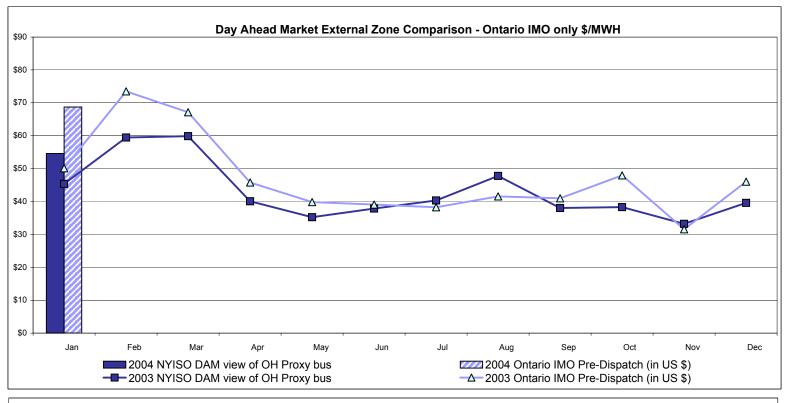


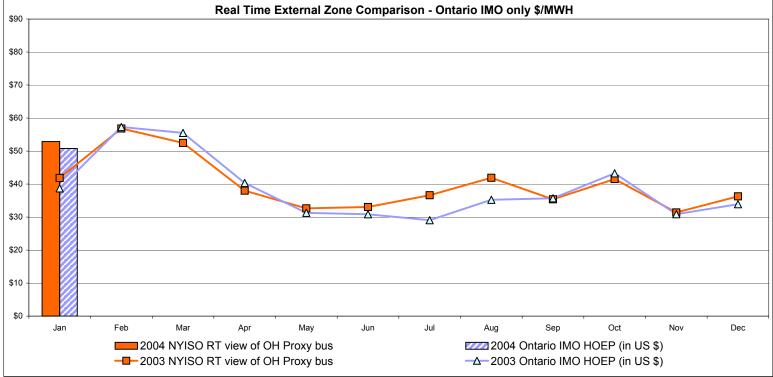


Note:

After 5/1/02 PJM lists only one interface as NYIS January 2004 data not yet posted by PJM

External Comparison Ontario IMO





Notes: Exchange factor used for January 2004 was .77 to US \$ HOEP: Hourly Ontario Energy Price Pre-Dispatch: Projected Energy Price Pre-Dispatch data from 8/14/03 Hr 15 thru 8/21/03 not included

NYISO Price Correction Statistics

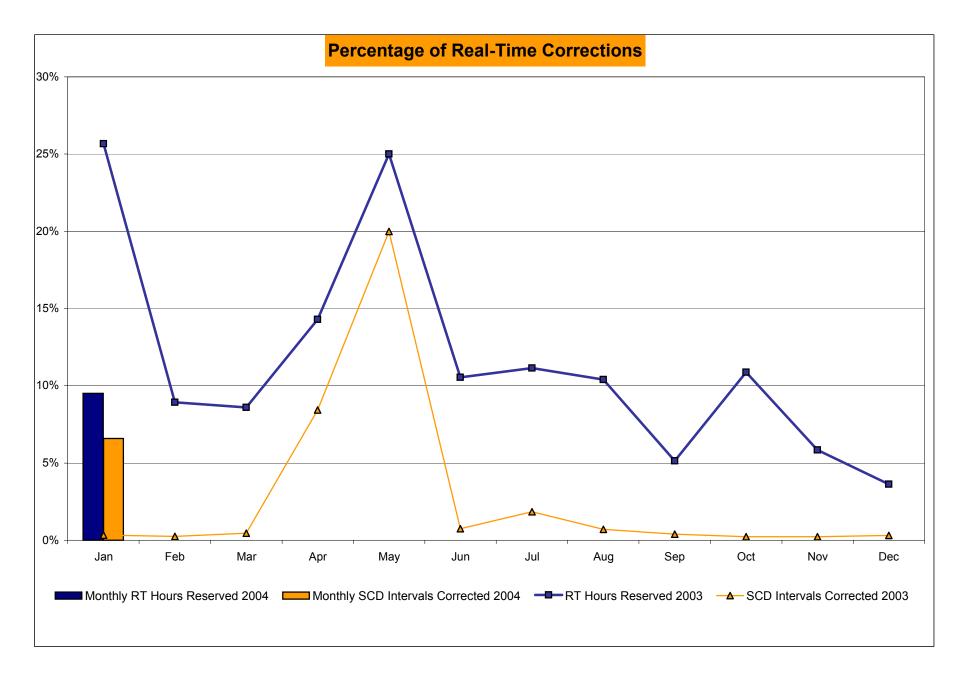
NYISO Price Corrections 2004

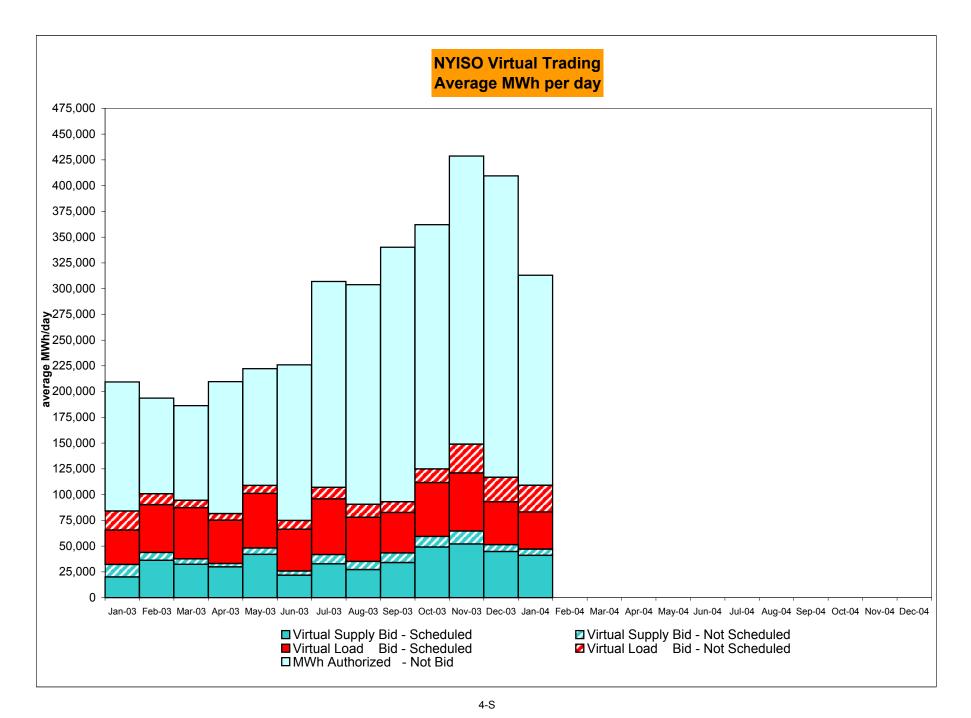
Interval Corrections	January	February	March	April	Мау	June	July	August	September	October	November	December
Number of Intervals corrected in the month	591											
Number of Intervals in the month	8,962											
Percentage of intervals corrected in the month	6.59%											
Number of Intervals corrected Year-to-date	591											
Number of Intervals Year-to-date	8,962											
Percentage of intervals corrected Year-to-date	6.59%											
Hours Reserved												
Number of hours reserved in the month	57											
Number of hours in the month	600											
Percentage of hours reserved in the month	9.50%											
Number of hours reserved Year-to-date	57											
Number of hours Year-to-date	600											
Percentage of hours reserved Year-to-date	9.50%											
Days Without Corrections												
Days without price corrections in the month	13											
Days without price corrections Year-to-date	13											

NYISO Price Corrections 2003

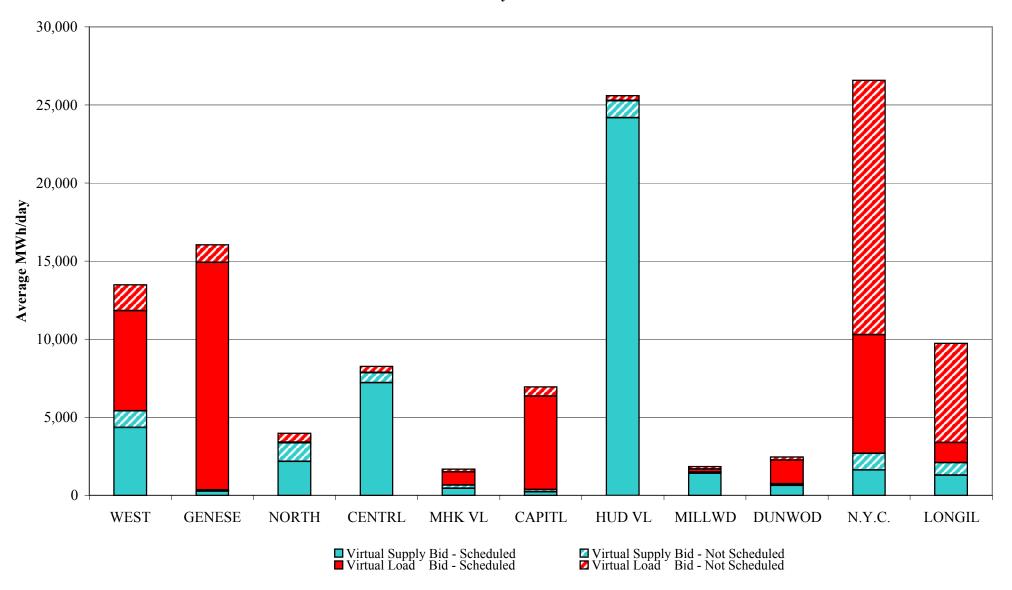
Interval Corrections	January	February	March	April	May	June	July	August	September	October	November	December
Number of Intervals corrected in the month	36	25	49	891	2,254	79	202	71	41	25	25	34
Number of Intervals in the month	10,986	10,197	10,918	10,554	11,274	10,729	10,998	9,973	10,620	11,248	10,629	11,175
Percentage of intervals corrected in the month	0.32%	0.25%	0.45%	8.44%	19.99%	0.74%	1.84%	0.71%	0.39%	0.22%	0.24%	0.30%
Number of Intervals corrected Year-to-date	36	61	110	1,001	3,255	3,334	3,536	3,607	3,648	3,673	3,698	3,732
Number of Intervals Year-to-date	10,986	21,183	32,101	42,655	53,929	64,658	75,656	85,629	96,249	107,497	118,126	129,301
Percentage of intervals corrected Year-to-date	0.32%	0.28%	0.34%	2.35%	6.04%	5.16%	4.67%	4.21%	3.79%	3.42%	3.13%	2.89%
Hours Reserved												
Number of hours reserved in the month	191	60	64	103	186	76	83	69	37	81	42	27
Number of hours in the month	744	672	744	720	744	720	744	664 🕯	▶ 720	744	720	744
Percentage of hours reserved in the month	25.67%	8.93%	8.60%	14.31%	25.00%	10.56%	11.16%	10.39%	5.14%	10.89%	5.83%	3.63%
Number of hours reserved Year-to-date	191	251	315	418	604	680	763	832	869	950	992	1,019
Number of hours Year-to-date	744	1,416	2,160	2,880	3,624	4,344	5,088	5,752	6,472	7,216	7,936	8,680
Percentage of hours reserved Year-to-date	25.67%	17.73%	14.58%	14.51%	16.67%	15.65%	15.00%	14.46%	13.43%	13.17%	12.50%	11.74%
Days Without Corrections												
Days without price corrections in the month	17	15	14	9	8	8	7	5	9	17	15	14
Days without price corrections Year-to-date	17	32	46	55	63	71	78	83	92	109	124	138

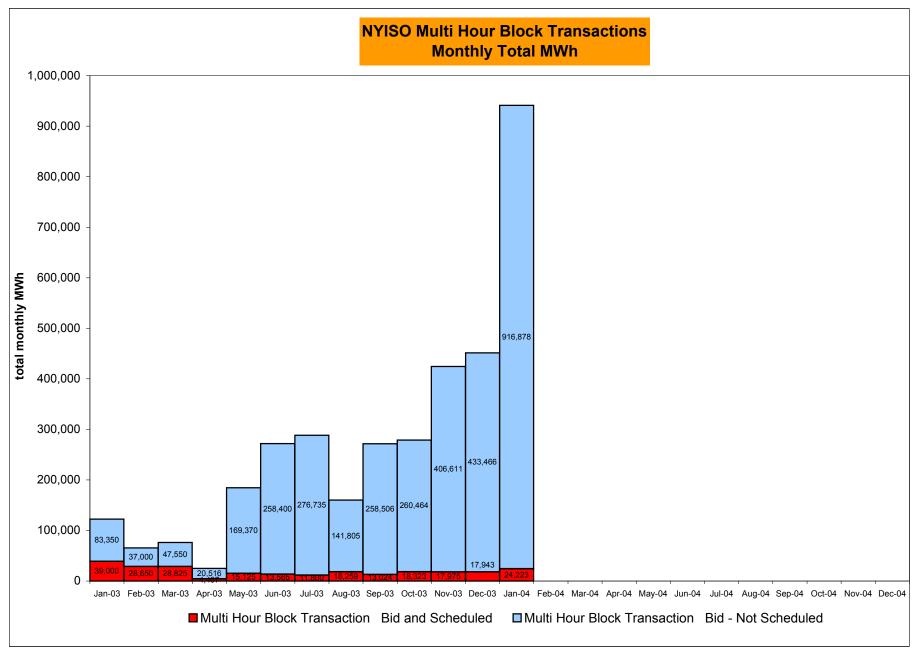
* 80 hours not included due to suspended market during system disruption





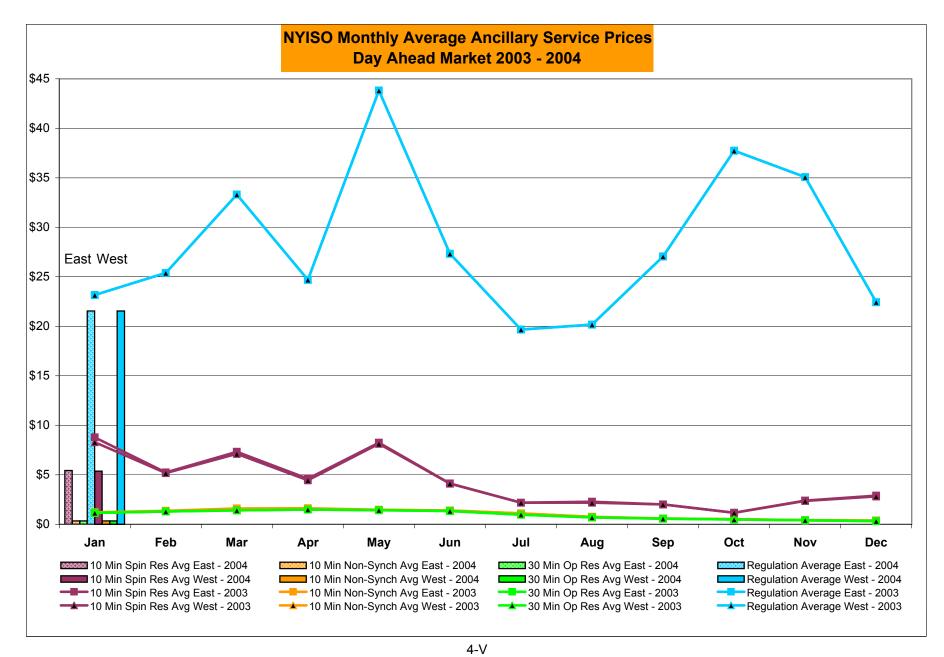
Virtual Load and Supply Zonal Statistics January 2004

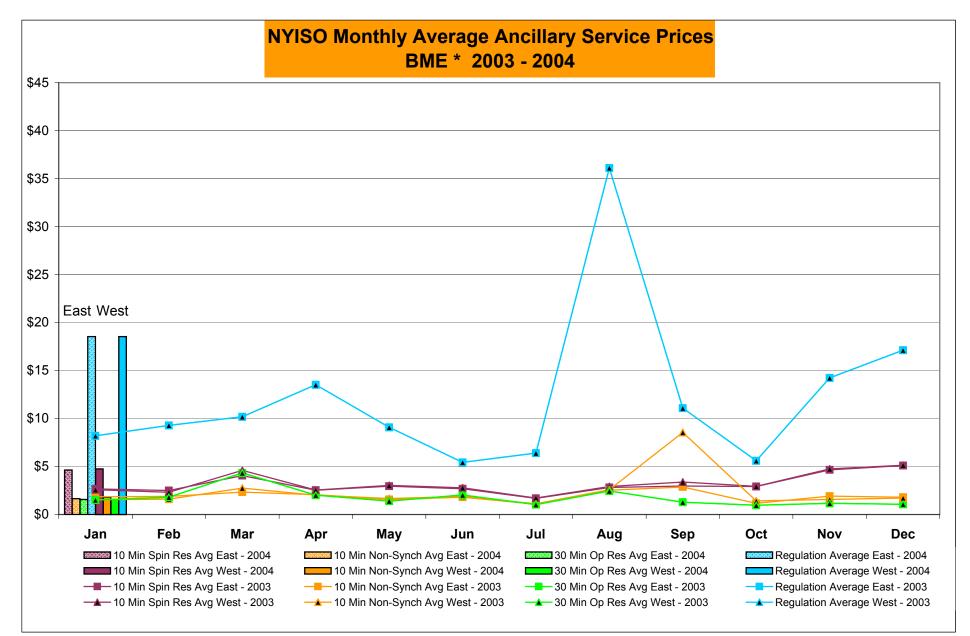




4-U

Preliminary data thru 1/29/04





* Commonly referred to as Hour Ahead Market (HAM)

4-W

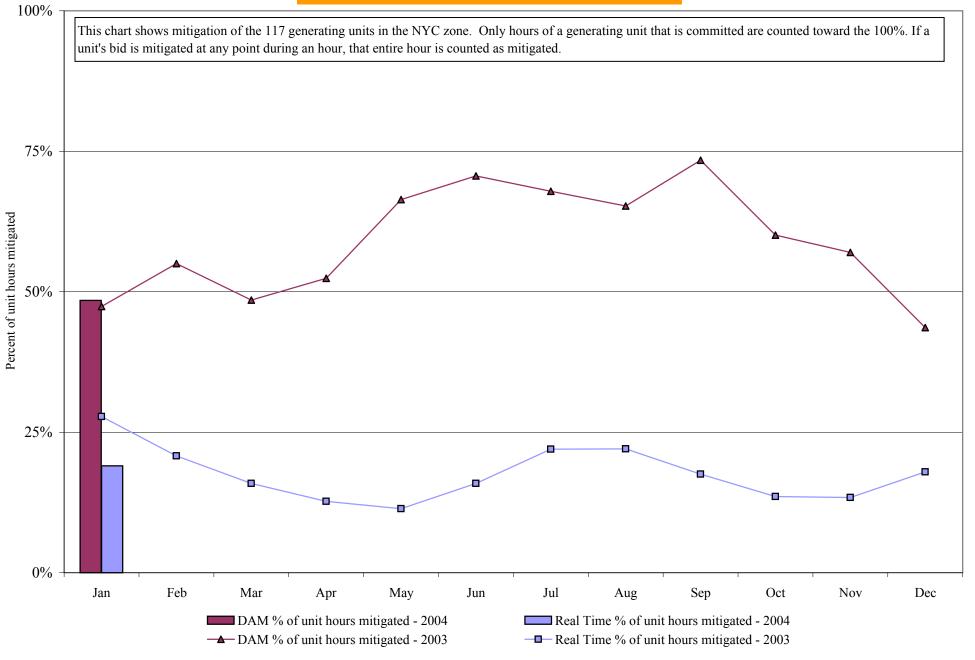
NYISO Markets Ancillary Services Statistics

	January	February	March	April	May	June	July	August	September	October	November	December
ANCILLARY SERVICES Unweight	ed Price (\$/M	WH) 2004										
Day Ahead Market												
10 Min Spin East	5.43											
10 Min Spin West	5.37											
10 Min Non Synch East	0.34											
10 Min Non Synch West	0.33											
30 Min East	0.33											
30 Min West	0.33											
Regulation East	21.55											
Regulation West	21.55											
BME* Market												
	4.63											
10 Min Spin East	4.03											
10 Min Spin West	4.75											
10 Min Non Synch East												
10 Min Non Synch West 30 Min East	1.80 1.56											
30 Min West	1.56											
Regulation East	18.54											
	18.54											
Regulation West	10.04											
ANCILLARY SERVICES Unweight	od Drice (¢/M	MU) 2002										
ANGILLART SERVICES UNWEIGHT		<u>vvn) 2003</u>										

Day Ahead Market												
10 Min Spin East	8.78	5.24	7.33	4.60	8.24	4.12	2.18	2.28	2.01	1.17	2.39	2.89
10 Min Spin West	8.30	5.17	7.12	4.45	8.12	4.11	2.18	2.18	2.00	1.17	2.37	2.81
10 Min Non Synch East	1.22	1.36	1.60	1.61	1.48	1.40	1.09	0.76	0.58	0.52	0.41	0.38
10 Min Non Synch West	1.15	1.32	1.45	1.54	1.45	1.39	1.09	0.72	0.58	0.52	0.40	0.32
30 Min East	1.14	1.30	1.41	1.48	1.42	1.35	0.97	0.69	0.56	0.48	0.40	0.32
30 Min West	1.14	1.30	1.41	1.48	1.42	1.35	0.97	0.69	0.56	0.48	0.40	0.32
Regulation East	23.17	25.39	33.31	24.70	43.82	27.33	19.67	20.17	27.06	37.74	35.07	22.43
Regulation West	23.17	25.39	33.31	24.70	43.82	27.33	19.67	20.17	27.06	37.74	35.07	22.43
BME* Market												
10 Min Spin East	2.67	2.50	4.05	2.54	2.95	2.69	1.69	2.82	2.96	2.92	4.65	5.11
10 Min Spin West	2.59	2.32	4.61	2.55	3.04	2.78	1.72	2.91	3.38	2.94	4.76	5.13
10 Min Non Synch East	1.85	1.89	2.34	2.07	1.57	1.80	1.09	2.53	2.87	1.17	1.92	1.80
10 Min Non Synch West	1.53	1.59	2.75	2.02	1.67	1.88	1.11	2.58	8.55	1.41	1.57	1.71
30 Min East	1.52	1.80	4.34	2.02	1.40	2.03	1.04	2.46	1.28	0.97	1.17	1.07
30 Min West	1.52	1.80	4.34	2.02	1.40	2.03	1.04	2.46	1.28	0.97	1.17	1.07
Regulation East	8.21	9.28	10.19	13.52	9.08	5.44	6.41	36.11	11.09	5.60	14.24	17.12
Regulation West	8.21	9.28	10.19	13.52	9.08	5.44	6.41	36.11	11.09	5.60	14.24	17.12

* Commonly Referred to as Hour Ahead Market (HAM)

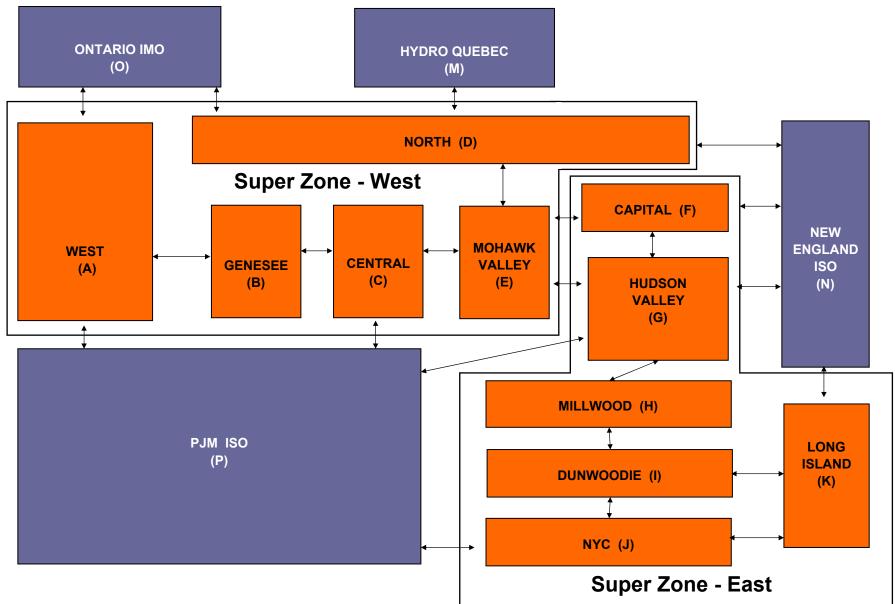
NYISO In City Mitigation (NYC Zone) 2003-2004 Percentage of committed unit-hours mitigated



Market Monitoring Prepared 1/30/2004 9:30 4-Y

Preliminary data thru 1/29/04

NYISO LBMP ZONES



SMD2 Project Review

Status Update NYISO Management Committee Meeting February 4, 2004





Summary Status

- New market functionality demonstrated in Factory Acceptance Testing (FAT) – 12/03
- Integrated test (Bid-to-Bill) showed we have a working product
- Completion and "Go Live" <u>Not</u> a question of "if" but "when"
- Project is 12+ weeks behind due to ABB delays
- Realistic schedule is 9/15/04 for "Ready To Go Live"
- Confidence in revised schedule is high



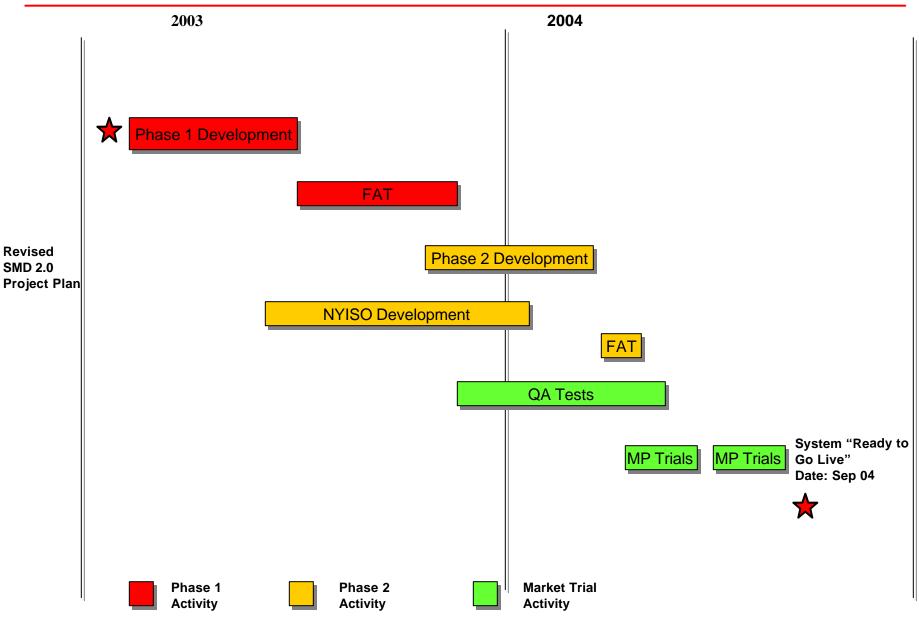
- Deliverables Received
 - Base RANGER Energy Management System (EMS)
 - Functional Real-time Scheduling (RTS) system
 - State Estimator
 - Dispatcher Training Simulator
 - Full set of production hardware; half QA hardware
- Impact
 - Core grid and market functions operational
 - Cradle to grave test successfully performed DAM and RTS prices posted to Web
 - Complete test and simulation capability available



- Certain planned features required in legacy
 - AMP software changes for day ahead market (current in-city real time market mitigation continues)
 - Billing system issue resolution will be continued
 - No budget impact



Project Plan Comparison



Elements of A620 in the Legacy System

- Statewide DA-AMP: Startup and Min-Gen
 NYC DA-AMP:
 - Full conduct and impact testing in the presence of congestion.
 - Hourly selectivity: conduct and impact tests are carried out on an hour-by-hour basis.
 - Startup, min-gen, and incremental energy offers are each evaluated separately for conduct.
 - LBMP impact and Guarantee Payment impact are tested separately.