



# Monthly Report

**April 2004**

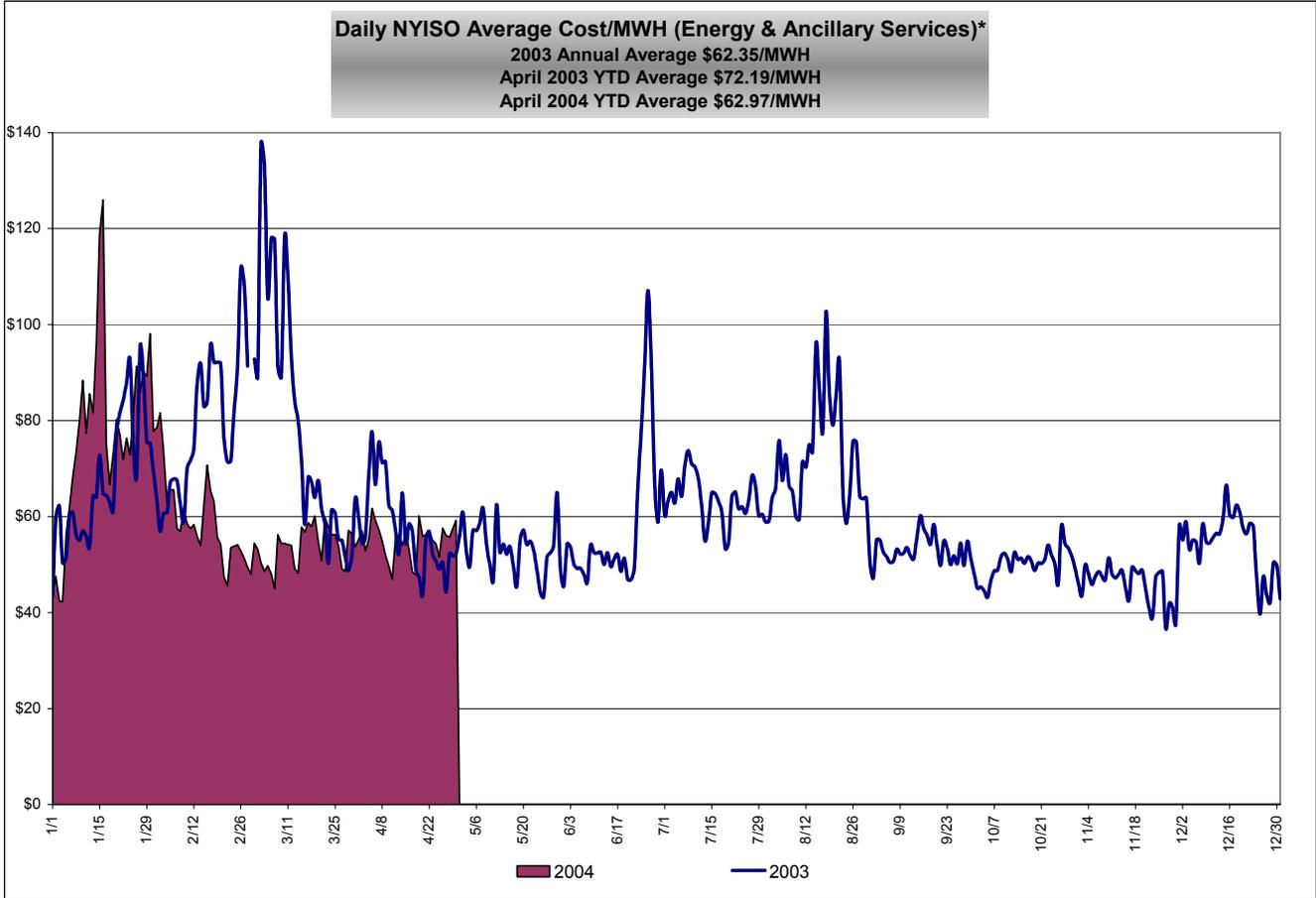
**Rob Fernandez**

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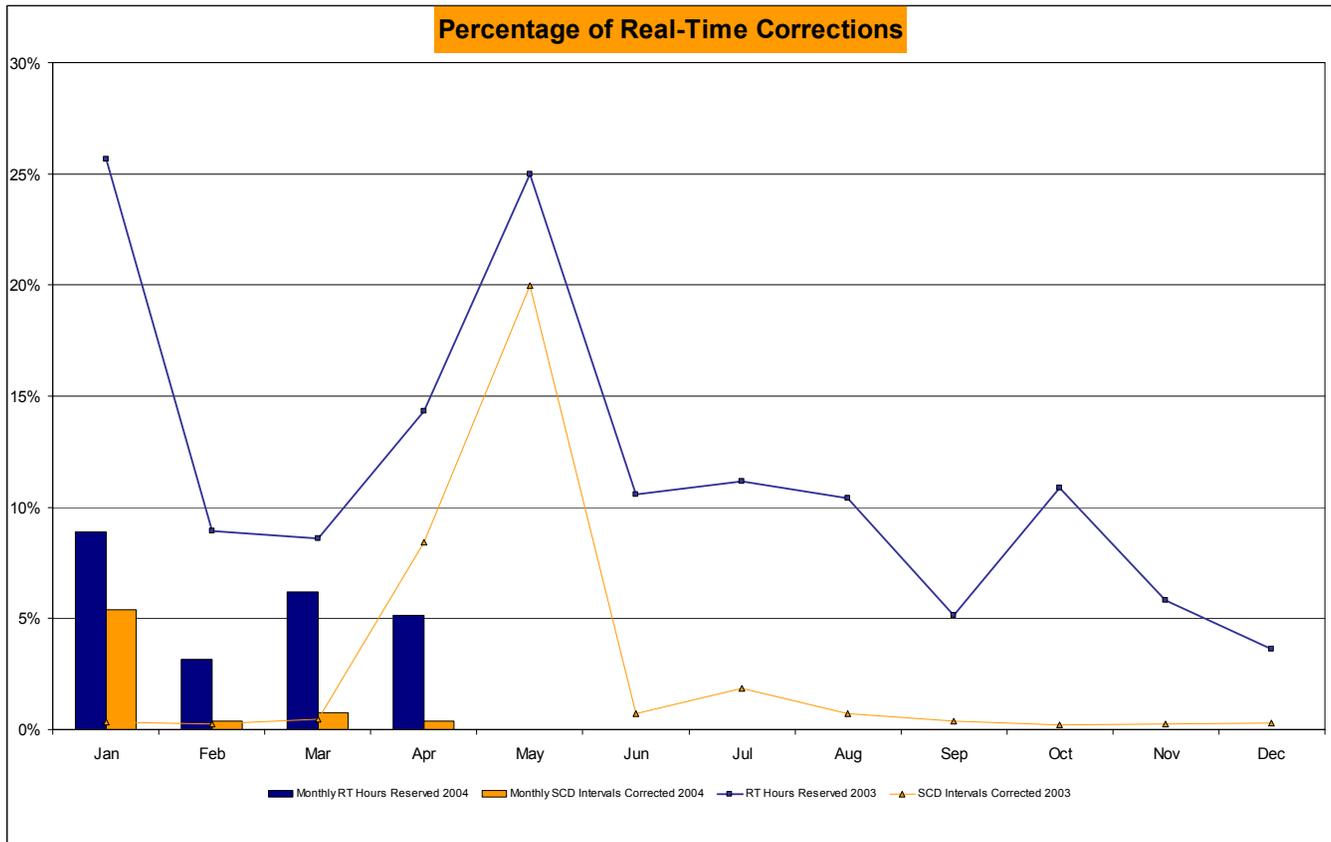
# 1. Executive Summary

April's fuel prices increased over last month and the same period last year. Electric energy prices, however, were down from the previous year's April levels in both the Day-Ahead and Real-Time markets.



On April 8, the NYISO announced that because of the addition of new generation, the implementation of demand response programs, and purchases of out-of-state capacity, New York State, including New York City and Long Island, should have adequate power supplies to meet the projected summer peak load forecast of 31,800 MW.

Hourly regulation requirements changes were implemented as of April 1, resulting in an average hourly decrease of 65 MW/hour for the month.



A major milestone in April was the achievement of zero billing issues that required action by IT. During April, e-tagging was deployed and legacy IT systems were modified to include enhancements to the Automated Mitigation Process, including the expansion of conduct and impact testing throughout the state, temporal selectivity for in-city divested generation and mitigation of start-up and minimum generation bids.

The final report on the 2003 Blackout was issued by the International – U.S. and Canada – Task Force in April. The report concluded that the blackout was caused primarily by a failure to follow well defined, although voluntary reliability rules, and that the resulting cascading event was outside any NERC or individual system’s design criteria. The NYISO’s final report on the blackout will be issued in June.

The NYISO received an unqualified opinion on its annual financial report by Deloitte and Touche, the NYISO’s independent, external auditor. The Board accepted the D&T opinion at its April meeting. Also at its April meeting, Bill Boston was re-elected as Chairman for the next year, and Peter Berle and Karen Antion were re-elected as co-vice chairs. Also, Directors Dick Schuler, Hal Scherer, and Tom Ryan were re-elected to four-year terms.

The SMD project remains on track to begin factory acceptance testing at the NYISO in early May. In addition, upload-download testing by MPs is underway with good results.

## 2. System Operations

### Management Summary

Peak load for the month was 20,370 MW on Thursday, April 1. No Major Emergencies were declared during the month. The nine declared alert states were all attributable to system frequency excursions. There were 17 occasions when reserve energy was activated during April, with 13 due to large control area errors and two due to activation of shared reserves. CPS1 was 170%; CPS2 was 96.3%. There were no Disturbance Control Standard (DCS) events. On April 28, the ICO/ACC drill was completed. The NYISO completed its NERC Readiness Audit, which was a review by the NERC audit team of the NYISO Control Area functions. There were no significant outstanding issues raised in the audit. The report will be made public sometime in June. The NERC Standing Committees approved revisions to NERC Operating Policies 5, 6, and 9.

Operations Engineering completed the final 2004 Short Circuit Case and distributed it to the SPAS data contacts for final review. A summary of the anticipated conditions for this summer and preliminary assessment report is expected early in May. Staff has completed an analysis of UPNY-Con Ed voltage performance for levels of Athens generation, including sensitivity analysis for Roseton and Bowline generation. The draft report will be distributed to OSTF for review during the first week of May. Staff reviewed the draft Load Power Factor Assessment report and associated questions that were received from the initial SOAS review with Legal. Staff is incorporating the responses into the report to provide additional background information and is also developing a schedule for the additional analysis for the mid- and light-load analysis to be completed as part of the Reactive Studies. Staff coordinated the OSTF review and comments for the Summer 2004 Operating Study report for SOAS final review and Operating Committee approval. The report was approved at an April 29 meeting and has been posted to the NYISO website. NOAA/SEC reported six Kp=5 events during the month. During the month, three events resulted in excursions of more than 30 MHz or a loss of greater than 1,000 MW.

Market Operations staff began operation of the revised Statewide and NYC Day-Ahead AMP on May 1, 2004. The new Day-Ahead AMP uses a conduct and impact test to determine whether mitigation is required. A successful implementation was achieved due to the high level of department involvement in the testing and verification process. Several test cases were provided to LECG, including responses to questions. Market Operations staff discussed Con Edison's reliability reasons, which resulted in the need to reschedule 345kV transmission work associated with the Con Edison fault current mitigation plan. A presentation detailing Con Edison's local reliability concerns was provided at the April Operating Committee meeting after ISO met with Con Edison's Operations staff to discuss the issue. The ISO Outage Scheduling process, including the recent request to improve transmission outage scheduling and cancellation rules, was also discussed. A review of NYISO, ISONE, PJM, and IMO transmission outage scheduling and cancellation rules is being conducted. Market Operations staff provided a presentation to the ISO Generation Issues Task Force detailing potential enhancements to the representation of combined cycle generating plants in the ISO unit commitment and scheduling systems. The proposed enhancements appear to fully satisfy the market and operational needs of combined cycle plant owners. Significant software modifications will be necessary to implement such unit modeling enhancements. Operations staff met with ISO-NE Operations and Market Operations staff to discuss improvements to the coordination of transfer capability adjustments and improved utilization of the New York-New England interconnections. Specific topics included a review of recent transfer capability adjustments; the need for joint ISO market participant announcements detailing such adjustments; the impact of transmission outage scheduling rules and operating limit derivation methodology; a review of the specific tie-line operating practices; and, the short- and long-term market impact of transfer capability adjustments. In April, scheduling staff processed 328 requests for generating unit DMNC testing and unit maintenance outages, confirmed 1,833 external control area transactions in the Day-Ahead Market checkout, and scheduled 834 NYS transmission facility maintenance outages.

The following table shows the number of reserve activations and the number that did not result in crossing zero, and the number of alert states in the current and past two years.

|               | 2002                       |                     |                   | 2003                       |                     |                   | 2004                       |                     |                   |
|---------------|----------------------------|---------------------|-------------------|----------------------------|---------------------|-------------------|----------------------------|---------------------|-------------------|
|               | No. of Reserve Activations | No. of Alert States | Non-Zero Crossing | No. of Reserve Activations | No. of Alert States | Non-Zero Crossing | No. of Reserve Activations | No. of Alert States | Non-Zero Crossing |
| January       | 5                          | 9                   | 0                 | 30                         | 24                  | 10                | 36                         | 21                  | 6                 |
| February      | 20                         | 24                  | 3                 | 23                         | 21                  | 5                 | 15                         | 7                   | 3                 |
| March         | 24                         | 31                  | 6                 | 24                         | 10                  | 7                 | 25                         | 24                  | 2                 |
| April         | 25                         | 25                  | 9                 | 16                         | 24                  | 2                 | 17                         | 9                   | 1                 |
| May           | 11                         | 19                  | 2                 | 10                         | 13                  | 2                 |                            |                     |                   |
| June          | 13                         | 14                  | 3                 | 15                         | 12                  | 2                 |                            |                     |                   |
| July          | 66                         | 33                  | 41                | 12                         | 18                  | 1                 |                            |                     |                   |
| August        | 25                         | 10                  | 12                | 24                         | 22                  | 4                 |                            |                     |                   |
| September     | 23                         | 20                  | 9                 | 12                         | 6                   | 0                 |                            |                     |                   |
| October       | 28                         | 24                  | 11                | 25                         | 21                  | 3                 |                            |                     |                   |
| November      | 25                         | 26                  | 4                 | 17                         | 12                  | 3                 |                            |                     |                   |
| December      | 32                         | 27                  | 8                 | 40                         | 16                  | 4                 |                            |                     |                   |
| <b>Totals</b> | <b>297</b>                 | <b>262</b>          | <b>108</b>        | <b>248</b>                 | <b>199</b>          | <b>43</b>         | <b>93</b>                  | <b>61</b>           | <b>12</b>         |

**Attachments**

Attachment 2-A, NERC Control Performance Standard

### **3. Market Services**

#### **Management Summary**

##### Customer Relations:

During the month of April, one customer left our market and three new customers were added, making the total number of NYISO Customers now 224.

As part of our effort to support our Customers, the NYISO is tracking responsiveness to inquiries. For 2004, the Customer Relations goal has been set at 95%. For April, the Customer Resolution Survey was sent out with 48 answers to Customers' inquiries; no responses were received. Therefore, a 100% rate was achieved for the month. (See Attachment 3-A)

Another of Customer Relations' goals is to trend the backlog of open inquiries. Attachment 3-B is a graph of open and closed tracking tickets; Attachment 3-C shows the length of time that tickets have been open, and Attachment 3-D shows the number of days that inquiries have been open as of the end of April.

During the month, Customer Relations continued meeting with Customer organizations as part of efforts to learn more about our Customers' businesses and their objectives for interactions with the NYISO. Four Customer visits took place in April.

##### Customer Technical Services:

This month's significant communications to Market Participants included the announcement of an SMD2 training session in Houston, Texas, on Tuesday, June 22, 2004; notification of available imports for the summer 2004 capacity period; an invitation to SMD2 sandbox testing; a notice of changes to the technical process by which the NYISO Hourly and Daily Settlement Advisory Statements (CSVs) are delivered to Market Participants; dissemination of the Billing Cycle Assessment Report, prepared by RJ Rudden; announcement of the Station Power Project deployment; the April 16, 2004 issue of the NYISO's Market Participant Newsletter, "NYISO Insider"; the release of the inaugural issues of NYISO Bulletins regarding e-tagging and AMP III/ IV; announcement of 2004 Spring Economic Outlook seminar on May 11; and the announcement of the Automated Mitigation Procedure (AMP III/IV) implementation. Technical Bulletin # 116, New Generating Units Operating During the Start-Up Testing Phase; # 117, describing Station Power program registration and data models; # 118, outlining Station Power scheduling and reporting; #119, describing the calculations and settlements used in determining Station Power; #120, highlighting how Web-based Reconciliation is used to report and view Station Service data; # 121, explaining ancillary service charges for 3rd party Station Power suppliers; # 122, describing changes to the consolidated invoice resulting from Station Power; # 125, Settlements for Day-Ahead Transactions Involving Grandfathered Rights; # 126, NYISO Distribution of Resource Capacity and Reactive Power Capacity Data to the NYCA Transmission Owners; and, a revised version of #68, Temporary Reference Price Adjustment Request Process were released.

The following Technical Bulletin was revised and distributed to Market Participants: #68, revised for the deployment of AMP III/IV. The following six Technical Bulletins were re-released to Market Participants: #'s 117-122, describing Station Power. Additionally, the following new Technical Bulletins were created and distributed to Market Participants: #116, which explains the processes by which new generating units may operate while in pre-commercialized status; #125, detailing the settlements associated with bilateral transactions claiming grandfathered rights; and #126, describing the NYISO's collection and dissemination of DMNC and VAR data.

CTS staff participated in the Issue Management Committee (IMC), the Issue Resolution Team (IRT), the Committee Coordination Team (CCT), and represented Market Services at a meeting of the Compliance Task Force.

CTS participated in the Market Structures Working Group and the Scheduling & Pricing Working Group, the Generator Issues Task Force, and took minutes at the April BIC.

CTS continued work on the ICAP Market Automation User's Guide, the DSS User's Guide, an RFP for NETSS,

CTS completed a marketing brochure for the DSS project and continued work on additional marketing material for DSS.

CTS completed and issued two separate web traffic reports – a weekly analysis posted on our intranet site, and a monthly, in-depth analysis.

CTS staff assisted the Training Department by participating in a run-through of SMD 2.0 training and by completing work on the MPUG.

### Product Development

#### ◆ Demand Response Programs:

- Conducted ½ day class for NYSEERDA personnel.
- Continued development of DADRP program extension – PRLWG meeting.
- Revised EDRP and ICAP Manuals to reflect EDRP and SCR changes approved by BIC.

#### ◆ ICAP:

- Presentation made by Levitan Associates on third year ICAP demand curve adjustment study at ICAPWG (4/22).
- Reviewed long-term resource adequacy proposal with ICAPWG (4/30).

#### ◆ Cost/Benefit Analysis:

- Added staff to address CBA analysis – met with consultant for final round of modifications to analysis spreadsheet and handbook.

#### ◆ Seams Issues:

- Met with ISO-NE, PJM and NY market participants to finalize FERC seams report.

#### ◆ Presentations:

- Conducted seminar on demand response for Columbia Univ. graduate school class in Energy and Environmental Policy.
- Presented Demand Response portion of NYMOC training.

#### ◆ New Issues:

- Supported 2005 project budget process by assembling list of all known candidate issues.
- Supported SMD effort, including ongoing implementation tasks, market training, market trials, and responses to FERC order.
- Worked on requirements for post-SMD deployment enhancements, including enhanced combined cycle modeling and RTC 15-minute dispatch.
- Worked on interim solution for Cross Sound Cable project.

### Resource Adequacy

#### ◆ Resource Reliability:

Staff completed the May 2004 monthly ICAP and Spot Market Auctions. The fourth iteration of construction for the UCAP Automation project was completed, with all deliverables provided by the vendor. The fifth iteration of construction for this project has started.

◆ Transmission Congestion Contracts:

Staff completed the May 2004 Reconfiguration Auction and the remaining rounds of the Spring 2004 TCC Auction. Staff continued to work with LECG to resolve issues related to the calculation of DAM congestion cost allocations for January 2004. The data collection effort for this process continues on track. A revised Transmission Services Manual was posted for Market Participant review.

**Look Ahead**

Customer Technical Services:

CTS will release new Technical Bulletins regarding Local Reliability Rules, the DSS Alternate Document Delivery subsystem, and the rules regarding external transactions. CTS will issue a revised version of Technical Bulletin # 68. CTS will draft new Technical Bulletins on the Cross Sound Cable Crossing Interim Solution and the elimination of grouped units.

CTS will continue to provide documentation for the UCAP Automation project and on version 2.0 of the DSS User's Guide.

CTS will continue working with Project Management on the survey project and on the Key Stakeholder Survey.

CTS will attend PSERC IAB meeting in Pittsburgh (5/19-21/2004).

Product Development:

- Attend NYDEC DG Rulemaking stakeholders' meeting on May 17.
- Presentation on demand response contribution to August 2003 system restoration to be given at CBI Electric Reliability Congress in Wash. DC, May 21.
- Rollout of final DADRP extension proposal to PRLWG on May 14.

Resource Adequacy

◆ Resource Reliability:

Complete the regular monthly ICAP auctions for May including the Spot Market Auction. Work with the UCAP Automation project vendor and NYISO Quality Assurance Department to test the application.

◆ Transmission Congestion Contracts:

Complete the June 2004 TCC Reconfiguration Auction. Work with the Market Structures Working Group (MSWG) to develop a methodology for the release of transmission capacity back into the monthly TCC auctions reserved in the Capability Period TCC auction by the Transmission Owners. Work with the MSWG and NYISO consultants on a process to introduce TCC options on the control area borders in the TCC auctions. Work with the MSWG to develop a TCC Auction Manual. A revised Transmission Services Manual will be presented for approval to the Business Issues Committee at their June meeting.

**Attachments**

- Attachment 3-A, Customer Resolution Survey
- Attachment 3-B, Tickets Open, Tickets Closed as of End of April 2004
- Attachment 3-C, Open Tickets by Month 2004
- Attachment 3-D, Number of Tickets Open by Days April 2004

## 4. Corporate and Market Risk Management

### Management Summary

#### Risk Assessment:

The Enterprise Risk Management (ERM) department continued to provide reports to the CEO and Board Audit and Compliance Committee. Staff continued the process of monthly risk assessment reports and prepared accompanying recommendations. The internal risk committee met in April to review the progress of the program, assess risk exposure in March, and measure the effectiveness of mitigation efforts.

#### Industry Affairs

- North American Energy Standards Board (NAESB) Seams Issues:

NAESB's Seams Subcommittee evaluated 42 Seams Issues from the Seams matrix that could fall under NAESB's scope for standards development. NAESB asked industry participants to prioritize each of the 42 issues as a high, medium or low. NAESB received 11 responses from companies, including the IRC.

NAESB's Seams Subcommittee reviewed the issues and responses by conference call on April 19. The consensus of the call participants was that the rankings would have the following meanings: Priority 1 - High Priority, NAESB should begin addressing in 2004; Priority 2 - Medium Priority, NAESB should begin addressing in 2005; and, Priority 3 - Low Priority, NAESB should begin addressing in the future, if at all, depending on external developments.

The WEQ Executive Committee ("EC") will review the results of the rankings at its May meeting. The Seams Subcommittee should begin drafting requests for standards of its highest priority seams issues for submission to the NAESB Triage Committee this summer, presumably for assignment to the WEQ and approval by the EC in August. The WEQ of the EC would then have the choice of assigning the requests back to the Seams Subcommittee, another existing subcommittee, or create a new subcommittee. The goal is to begin drafting standards for the highest priority seams issues by the end of 2004.

As a result of the April Seams Subcommittee conference call, three Request Drafting Teams were formed: Transmission Services (transmission product definitions); Transaction Scheduling; and, Market Standards (energy product definitions).

- OASIS Standards:

The NAESB WEQ EC is expected to accept the current OASIS Phase 1A Business Practices, Standards and Communication Protocol Standards (S&CP), and standards referenced in various FERC orders, including 889 and 605 at its May meeting. This is a procedural requirement for NAESB so they may develop standards that are incremental changes.

NAESB formed an OASIS 1A Task Force of the NAESB IT subcommittee. The TF will review OASIS 1A issues (i.e. those left over from the OASIS Scheduling Collaborative ("OSC"), as well as emerging issues that may lead to new or revised standards related to OASIS 1A. The majority of the issues will likely be related to handling physical transmission service requests (i.e. multiple requests and redirects are under discussion). The task force will also review and investigate possible standards creation associated with the OASIS posting requirements under FERC Order 2003, (Docket No. RM 02-1-000) Standardization of Generator Interconnection Agreements and Procedures.

The ISO/RTO SRC reviewed the OASIS II Scope and Vision documents posted by NAESB for comment by May 10. The SRC concluded that the documents were of a general nature and the overall content was consistent with ISO/RTO interests. Thus, the SRC will not submit joint ISO/RTO comments to NAESB on these documents.

- NAESB Coordinate Interchange Business Practice Standard:

NAESB posted its Coordinate Interchange Business Practice Standard for comment. The ISO/RTO Standards Review Committee prepared and submitted consensus comments to NAESB for the ISO/RTOs. NAESB's WEQ Executive Committee is expected to take action on this at its May meeting.

This is the first of Business Practice Standards anticipated to be developed in conjunction with the transition of NERC Policies to Reliability Standards and associated Business Practice Standards by NAESB. This standard represents Business Practices that are consistent with the current version of NERC Policy 3. The intent is for this standard to complement NERC compliance templates associated with Policy 3, and ultimately facilitate the implementation of the NERC Coordinate Interchange Reliability Standard currently under development as part of the NERC Standards process.

- NERC Standards Development and Review:

NYISO coordinated consensus positions and comments with the ISO/RTO and NPCC groups on the revised version of NERC's *Operate Within Interconnection Reliability Limits* standard-200. Consensus ISO/RTO comments and NYISO's individual comments were prepared and submitted for NERC's Interim Guidelines for Reporting and Disclosure.

The first draft of NERC's standard 1400, *Certification of the Balancing Authority Function*, is posted for industry review and comment. The NYISO will coordinate consensus positions and comments with the various industry groups.

Internal Audit:

During April, audit reports were issued for:

- Curtailments (focused review)
- Management Letter Follow-Up

Project Process Scorecards were issued for:

- Billing Simulator – Project Process
- SMD2.0 (Standard Market Design) – Project Process (continuing review)

Draft reports and/or report reviews were in progress for:

- Insurance (focused review)
- IT Configuration Standards
- LECG Oversight
- Payroll
- Regulation – account accuracy

Fieldwork and/or planning were in process for reviews of:

- Congestion Balancing
- Issues Management
- KPMG Billing Issues Recommendations
- MIS Application Security
- Storm Contingencies
- Transmission/Interconnection
- Voltage Support – account accuracy

The January through November 2004 SAS 70 Type 2 audit scope period is underway, all subject to review by KPMG, the SAS 70 external auditors.

Monitoring of Year 2004 Corporate Incentive Goals continued during April.

Market Monitoring:

◆ Market Review for April 2004:

Prices in the Day-Ahead Market (DAM) and Real-Time (RT) Market increased this month relative to last month, due largely to increases in fuel prices.

*Prices:*

The April 2004 Average Monthly MWh cost was \$55.14, up from \$53.94 last month. The Year-to-Date Average Cost of \$62.97 in April 2004 is lower than the April 2003 YTD price of \$72.21 (Attachment 4, Table 4-B).

LBMPs in the NYCA increased in all markets from March 2004 to April 2004. Prices in all three markets are down, however, when compared to April 2003. The load weighted average DAM price rose from \$50.44/MWh in March 2004 to \$52.50/MWh in April 2004, an increase of 4.1%. The load-weighted RT price increased from \$51.27/MWh in March 2004 to \$52.36/MWh in April 2004, an increase of 2.1%. (Table 4.1 below and Attachment 4, Table 4-E).

Table 4.1 Monthly Price Summary

|                                | April 2004  |             |             |
|--------------------------------|-------------|-------------|-------------|
|                                | DAM LBMP    | HAM LBMP    | RT LBMP     |
| Price                          | \$51.01/MWh | \$56.94/MWh | \$50.83/MWh |
| Standard Deviation             | \$11.42     | \$18.41     | \$14.15     |
| Load-weighted Price            | \$52.50/MWh | \$58.89/MWh | \$52.36/MWh |
| Percent change over March 2004 | 4.1%        | 6.6%        | 2.1%        |
| Percent change over April 2003 | -1.2%       | -4.2%       | -6.7%       |

Uplift decreased this month from \$27,631,092 in March 2004 to \$18,573,917 in April 2004. Although many of the categories have changed from last month, most of the change stems from a decrease in the Bid Production Cost Guarantee Balancing (Attachment 4, Chart 4-C).

*Transactions:*

Most energy transactions were either internal bilaterals (43% this month, up from 42% from last month) or LBMP purchases (55% this month, down from 56% last month). The percentage of DAM transactions increased from 96.2% in March 2004 to 98.0% in April 2004 (Attachment 4, Table 4-D).

*Sendout:*

The April 2004 sendout was 11,796 GWh. The April 2004 daily average sendout of 393 GWh/day was lower than the March 2004 daily average sendout of 416 GWh/day (Table 4.2 below). April 2003 had the same average daily sendout as this month (Attachment 4, Table 4-D).

Table 4.2 Monthly Summary Comparisons

|  | April<br>2004 | March<br>2004 | February<br>2004 | January<br>2004 | December<br>2003 |
|--|---------------|---------------|------------------|-----------------|------------------|
| Monthly Peak (Hourly Load): MW           | 20,370        | 22,140        | 22,944           | 25,262          | 23,483           |
| Average Daily Sendout: GWh               | 393           | 416           | 440              | 464             | 435              |
| Percent change<br>over the previous year | 0%            | -0.5%         | -2.2%            | +1.3%           | -1.1%            |
| Monthly Sendout: GWh                     | 11,796        | 12,910        | 12,746           | 14,384          | 13,494           |

*Fuel Costs:*

Fuel prices are all up this month relative to the prices last month, and prices are also up compared to prices in April 2003. Natural Gas prices saw the largest increase (6.8%) relative to March 2004, followed by Kerosene, No. 6 Fuel Oil, and No. 2 Fuel Oil (increases of 3.5%, 3.4% and 1.2% respectively).

Kerosene is showing the largest price increase relative to last year (28.14% higher than in April 2003), followed by No. 2 Fuel Oil (18.5% higher than in April 2003), No. 6 Fuel Oil (9.3% higher than in April 2003) and Natural Gas (4.3% higher than in April 2003). All fuel prices are stated in \$/MMBtu (Table 4.3 below).

Table 4.3 Summary of Fuel Costs for April 2004

|                        | No. 6 Fuel Oil | Natural Gas | No. 2 Fuel Oil | Kerosene |
|------------------------|----------------|-------------|----------------|----------|
| Price:\$/MMBtu         | \$4.78         | \$6.24      | \$6.53         | \$7.41   |
| Change from March 2004 | 3.4%           | 6.8%        | 1.2%           | 3.5%     |
| Change from April 2003 | 9.3%           | 4.3%        | 18.5%          | 28.14%   |

*Ancillary Services:*

DAM 10-Minute Spinning Reserve prices decreased by 24.9% in the East and in the West from March 2004 to April 2004. On a year-to-year comparison, DAM 10-Minute Spinning Reserve prices are down 33.8% in the East and 31.6% in the West in April 2004.

As a result of an analysis by Operations, the DAM hourly Regulation requirements changed on April 1, 2004, with an average hourly decrease of 65 MW in the Regulation requirement. The maximum decrease was 125 MW and in some hours the Regulation requirement did not change. DAM Regulation prices are down 30.7% this month compared to March 2004. Compared to April 2003, the DAM Regulation prices are down by 37.6% (Attachment 4, Chart 4-W and Table 4-X).

◆ Price Reservations and Corrections:

The percentage of hours reserved decreased this month, as did the percentage of intervals corrected. The percentage of hours reserved this month was 5.14%, down from 6.18% in March 2004. The percentage of intervals corrected decreased from 0.75% in March 2004 to 0.37% this month. There were nine days without price corrections during April (Attachment 4, Table 4-Q and Chart 4-R).

◆ Investigation and Physical Audit:

During the month of April 2004, one investigation was requested, two investigations were closed and posted to the NYISO public website, one audit was opened, and five audits were closed.

◆ Mitigations and Penalties:

DAM In-City mitigations occurred every day in April 2004. In-City RT Mitigation operated on all days this month. The DAM Automated Mitigation Procedure (AMP) did not arm during April 2004. There were no other mitigations during April 2004.

**Look Ahead**

Risk Assessment:

Staff continues to develop methodologies for including more prospective analysis risk reports. Staff is also working on a continual process improvement program that includes a real-time risk response capability and enhanced risk awareness across the NYISO. These enhancements will continue to be implemented throughout 2004.

## Market Monitoring:

MMP will be evaluating the impact of the May deployment of the latest components of the AMP. The new components include the mitigation of DAM startup and minimum generation and the replacement of the original In-City DAM mitigation with the more discriminating conduct/impact approach employed by the statewide mitigation.

## **Attachments**

|                  |   |
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| Attachment 4-A,  | Average Daily NYISO-Administered Total Price                |
| Attachment 4-B,  | Average Monthly Rates NYISO-Administered Total Price        |
| Attachment 4-C,  | OATT Schedule 1 – Uplift                                    |
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| Attachment 4-AB, | 2004 Corporate Goals and Objectives                         |

## 5. Strategic Development

### Management Summary

#### Business Planning

- ◆ Business Plan and Incentive Goals:

The 2004 Business Plan and Incentive Goals are being implemented and monitored. Staff met with the Budget, Standards and Performance Subcommittee to receive initial Market Participant input to the 2005 Incentive Goals.

- ◆ Strategic Plan:

The Five-Year Strategic Plan is being implemented; monitoring and analysis of 2004 activities is continuing. Planning for 2005 activities is underway.

#### System & Resource Planning

- ◆ Resource Adequacy:

Staff provided the second round of preliminary results of alternate locational requirements methodology. Staff assembled load and capacity numbers for the Load and Capacity Outlook, as well as for the Power Trends publication. Staff presented analysis showing differences between GADS derates and those reported in MIS. Staff reviewed a report for the NPCC CP-8 2004 Summer Assessment.

- ◆ Transmission Planning:

Work on the Initial System Planning Study continues. The Operating Committee approved the SRIS for the Ecogen Prattsburgh Wind Farm project. Staff received study reports for the LIPA Summer 2004 Mobile Generators and RG&E Ginna Uprates projects for review. The Class 2001 cost allocation settlement proceeding is still in progress. The subsequent Class Year cost allocations remain on hold. Compilation of basic input for the 2004 NY Area Transmission Review was completed and preparations for conducting the subsequent analysis are underway. Staff participated in an NPCC conference call regarding follow up on NERC recommendations from the August 14 blackout. Staff continues to participate in NERC/MEN/NPCC study activities related to the August 14 Blackout. Work on Phase 2 of the NYISO/NYSERDA Wind Generation Integration Study continues. Staff presented a revised scope of the Deliverability Impact Study to the IITF for comment and discussion. The ISOs held a conference call to review and address stakeholder comments on the proposed Northeastern ISO/RTO Planning Coordination Protocol. Staff worked with the other ISOs and NPCC Areas to complete preparation of coordinated power flow, stability and short circuit cases for use in interconnection and planning studies.

- ◆ Load Forecasting:

The April Day-Ahead forecast average absolute error for the NYCA peak was 2.39% and the weather-adjusted error was 2.02%. Corresponding year-to-date numbers are 2.12% and 1.87%, respectively. Revised models for the Day-Ahead forecast have been installed by Market Operations and are producing improved results.

Zonal forecasts for the 2004 Load and Capacity Report were finished. A write-up was produced.

Tracking of the ISO-New England and PJM day-ahead forecast errors was begun. Access to historical PJM day-ahead forecasts is proving hard to obtain.

Staff is participating in the evaluation of the RTS forecasting components.

The Economy.com spring forecast was received and is being reviewed.

Staff has begun analyzing the responses for the Delphi survey for the 2004 NERC bandwidth study.

Work has been started on revising the Load Forecasting Manual.

Staff attended NYMOC training.

## **Look Ahead**

### Business and Strategic Planning:

A measurement and monitoring program for implementing the Strategic and Business Plans is in progress. An internal business planning and incentive goal team will convene in early June to begin work on the 2005 Business Plan and Incentive Goals.

### System & Resource Planning

- ◆ Resource Adequacy:

Continue to research capacity that is unavailable during peak load conditions. Perform analysis on alternate methodology #2 (GE method) for locational requirements. Develop draft NYCA Resource Adequacy annual review for NYSRC. Prepare data for use in 2005 IRM study. Work with ICS on 2005 study methodology (joint with locational study) and assumptions. Approach ISO-NE and PJM on sharing resource reliability data.

- ◆ Transmission Planning:

Staff expects to complete a first draft of the Initial System Planning Study report for distribution to TPAS and the ESPWG by mid-May. Continue development of the Comprehensive (Phase 2) System Planning process. The ISOs expect to finalize and issue the Northeastern ISO/RTO Planning Coordination Protocol in May. Continue to provide assistance and review of studies for proposed new interconnections. Continue preparations to implement the new interconnection procedures outlined in the NYISO's compliance filing. Continue to address issues related to system upgrades required for interconnections and the associated Class Year cost allocations. Begin analysis for the 2004 New York Area Transmission Review. Continue work on the August 14 blackout investigation and follow up on the Joint Task Force blackout recommendations. Continue Phase 2 of the NYISO-NYSERDA Wind Generation Integration Study. Continue to work with IITF on the Deliverability Impact Study.

- ◆ Load Forecasting:

New models for the day-ahead forecast will be developed and tracked vs. the production models.

Revision of the Load Forecasting Manual will continue with participation by the Load Forecasting Task Force.

The Delphi survey for the 2004 NERC bandwidth study will be completed.

ISO staff will attend the Electric Utility Forecasters Forum and Northeast North America Electric Utility Forecasters Forum.

The Economy.com spring forecast meeting will be held.

## **Attachments**

Attachment 5-A, NYISO Daily Peak Load

Attachment 5-B, Day-Ahead Forecast (Weather-Adjusted) Performance Tracking

Attachment 5-C, Plot of 12-Month Moving Total of NYCA Weather Adjusted Energy Sendout

Attachment 5-D, Plot of Weather Adjusted 12 Month Moving Total Energy Sendout Annual Percent Change

Attachment 5-E, Plot of 12 Month Moving Total of NYCA Energy Sendout and Effective Degree Days for 10 years

Attachment 5-F, Plot of 12 Month Total Energy Sendout Annual Percent Change for 10 Years

## 6. Regulatory Affairs and General Counsel

### Management Summary

The NYISO made eleven FERC filings and one NYPSC filing in April 2004. Various Market Participants made four NYISO-related filings (or groups of filings). FERC issued two letter orders, three procedural orders and one rulemaking order clarifying certain standards of conduct provisions for transmission providers. Listings of the NYISO related regulatory filings and FERC orders issued are included as Attachments 6-A and 6-B.

NYISO and NYTOs joint request for clarification, request for waiver or, in the alternative, request for rehearing of Order No. 2003-A (RM02-1-001) – Filed April 5, 2004

The joint filing parties request that if FERC determines that the NYISO does not have operational control over all of the NYCA transmission facilities, the NYISO and NYTOs request that the Commission grant all waivers of the requirements in Order Nos. 2003 and 2003-A to: (1) permit the NYISO, under the January 20, 2004, joint compliance filing to be responsible for interconnection of facilities rated above 20 MW to any and all transmission facilities within the NYCA; and (2) permit the current split of functions between the NYISO and NYTOs to remain in effect, without imposition of the standard interconnection procedures and agreement on the NYTOs, during the interim period (i.e., January 20, 2004 to when FERC acts on the joint compliance filing).

NYISO filing of a request for clarification of the June 23, 2003 scarcity pricing order (ER03-766-003) – Filed April 15, 2003

The scarcity pricing order accepted the administrative scarcity pricing rules, but ordered that they cease to be effective on June 23, 2004. The premise for this ruling was the expectation that these rules would be superseded by the more efficient scarcity pricing features of NYISO's real-time scheduling ("RTS") market enhancements before Summer 2004. However, RTS implementation will not occur until later in 2004. Therefore, NYISO requests that the current pricing rules remain in effect until RTS is successfully implemented.

NYISO and NYTOs joint compliance filing of revised standard interconnection procedures and a standard interconnection agreement (ER04-449-002) – Filed April 26, 2004

As was the case in the January 20, 2004 joint compliance filing, the NYISO and NYTOs utilized the Commission's *pro forma* language except where it has been modified to reflect regional differences, current NYISO practices, or to conform to NYISO OATT definitions and terminology. Although the joint filing parties support inclusion of Appendix G requirements for nonsynchronous generators (e.g., wind), they have proposed not to adopt Order No. 2003-A's exemption from power factor requirements for wind generators until the New York investigation of wind power interconnection is completed. In addition, the compliance filing does not include FERC-approved language to address the disclosure of confidential information to a state regulatory body because such language conflicts with existing OATT Attachment F Code of Conduct provisions.

NYISO Section 205 filing of proposed interim scheduling procedures for external transactions at the Shoreham proxy generator bus (ER04-791-000) – Filed April 30, 2004

The proposed revisions establish interim scheduling procedures for external transactions (both imports and exports) that will enable the NYISO to support the scheduling of external transactions between the New York Control Area and the Cross-Sound Cable ("CSC"), a merchant transmission facility operated by ISO-New England. The enhanced scheduling capability will enable LIPA (sole holder of long-term firm advance reservations over the CSC) to release all or a portion of its CSC capacity to third parties and permit both LIPA and third parties to move power between New England and New York.

### Letter Orders:

During April, FERC issued letter orders accepting the NYISO and Niagara Mohawk refund calculation data compliance filings and directing a refund payment (ER97-1523-080); and NYISO's compliance filing and modifications to reduce the magnitude of congestion rent shortfalls (ER04-615-000).

Litigation Summary:

There was no litigation activity during April.

**Look Ahead**

The NYISO is preparing FERC filings regarding: changes related to wholesale Transmission Service Charges and aggregated credit for municipal systems; and its annual electric control and planning area report (FERC Form No. 714).

**Attachments**

- Attachment 6-A, NYISO Regulatory Filings – April 2004
- Attachment 6-B, NYISO related FERC Orders – April 2004

## 7. Committee Activities

### **Management Summary**

Management Committee (MC): The MC met on April 19, 2004 and in a Joint Meeting with the Board on April 20, 2004 in New York City.

Business Issues Committee (BIC): The BIC met on April 27, 2004.

Operating Committee (OC): The OC met on April 28, 2004.

- The OC modified and approved the Mott Haven Substation Project Study Scope, the Ecogen Prattsburgh Wind Farm SRIS, the Interface Stability Limit Analysis for All Lines in Service and Outage Conditions, the Invenergy High Sheldon Wind Farm Project Study Scope as amended, and the amended NYISO Summer 2004 Operating Study.

New York State Reliability Council (NYSRC):

- Installed Capacity Subcommittee (ICS):

The ICS Subcommittee met on March 31, 2004. The Subcommittee focused on the LSE Locational Capacity Requirements (LCR) methodology and also began drafting the assumptions for the 2005 IRM Study. GE has completed some test runs of the LCR methodology, but further analysis is required. The consideration of IRM Study assumptions included FORs, the hydro representation (water availability), and the gas turbine representation (ambient temperature). Also, the Subcommittee is considering a request by ConEd to phase-in modeling changes that have a large impact on the IRM.

- Reliability Compliance and Monitoring Subcommittee (RCMS):

The RCMS spent much of its April 14, 2004, meeting discussing issues related to various NERC and NPCC activities. RCMS review of the fourteen NERC Blackout Recommendations indicates "no changes" to the Compliance Program are necessary at this time.

### **Look Ahead**

Management Committee:

- In May, the MC will discuss the elimination of pancaked rates between the New York and New England control areas. A vote on the proposal will be held no later than the June MC meeting.

New York State Reliability Council (NYSRC):

- The next two meetings are scheduled for May 14 and June 11, 2004, respectively.

### **Attachments**

Attachment 7-A, MC Motion

## **8. Information Technology**

### **Management Summary**

The Station Power Final Phase Project (A647) completed QA integration testing and was deployed into the NYISO Production System.

The AMP III/IV Project (A620) completed QA integration testing and was deployed into the NYISO Production System.

The NYISO and ABB project teams performed Factory Acceptance Testing (FAT) on the SCADA / EMS software as part of the SMD2 project. The tests to validate operation of the Phase 2a enhancements to these systems were performed according to schedule.

The ABB project team completed Pre-FAT testing for the Phase 2a enhancements of the Business Management System (BMS) software. The BMS software includes the SCUC, Real-time Scheduling (RTS), and other market applications. A software build with the new enhancements to the BMS was delivered and installed at the NYISO in preparation for the NYISO acceptance testing in May.

Software fixes were provided by ABB for nearly all the Medium severity defects that were reported during the acceptance testing of the Phase 1 software. The NYISO staff will perform the validation of these fixes during the month of May.

Market Trials exercises commenced the interactive portion of the testing during the month of April with the initiation of the Upload/Download "sandbox" testing. This functionality makes available a replica test environment for Market Participants to validate that their software can successfully interface with the enhanced NYISO systems. The Customer Relations team, to ensure a smooth resolution of problems and strong participation by MPs, is monitoring the participation in these exercises.

The NYISO software development team has implemented nearly all the Phase 2a enhancements to the Quality Assurance testing environments that are required to interface the internal systems with the Phase 2a ABB software. The internal testing team is now able to perform full, integrated tests with the newly provided ABB software; these tests will be conducted in parallel with the ABB Phase 2a FAT exercises.

The NYISO E-Tagging project was completed and the software was deployed to production. The project entailed the development of automated tools to improve communication and updates of NYISO transaction schedules with the OATI E-Tag system. The new software allows automated approval and denial of incoming E-Tag requests and automated updates for schedule changes resulting from economic evaluations (e.g., Hour-Ahead Market), checkouts, etc. to the E-tag system.

A new release of the Decision Support System (DSS) was introduced in April. This release contains numerous new objects, reports, performance enhancements, and improvements to facilitate the DSS monthly invoice load. Major focus was providing more intermediate data for Power Supplier and Power Supplier Ancillary.

### **Look Ahead**

The SMD2 project team will perform formal FAT at NYISO facilities during April for the Business Management System (BMS) software. Completion of these testing exercises will constitute achievement of the project milestone for delivery of the Phase 2a software.

Market Trial "sandbox" exercises will be enhanced to include full web interface testing. MPs will be able to view the modified web screens, and sample static representations of the OASIS data postings and formats.

Infrastructure updates to the Weblogic Servers to support Application Clustering of the Production Web Servers will complete testing and be deployed into the NYISO Production System.

## **9. Human Resources**

### **Management Summary**

Six new employees and no new contractors were hired in April.

Total new employees hired for 2004 is 24; total new contractors hired is eight.

There were no terminations in April.

A total of 23 interviews (for both employee and contractor positions) were conducted in April. From these interviews, four external offers were made (three direct hire, one contractor), all accepted.

The NYISO audit of Payroll was completed with no high priority findings.

The NYISO Employee Opinion Survey was launched and will run through May 6.

Courses on SMD2 and RTS Energy Management System were developed and conducted for NYISO employees. They will be offered to Market Participants beginning on May 4.

Two DSS introductory courses were conducted during April – one on-line for Market Participants and one at NYISO for employees.

Three on-line E-Tagging question and answer sessions were conducted for Market Participants.

Fifty-Seven Power Plus Awards were awarded to employees in Corporate and Risk Management, IT, Market Services, Finance, HR, Administration & Compliance, and Operations.

### **Look Ahead**

The 2004 Learning Connection and Organizational Excellence program is being developed for delivery to NYISO employees and managers.

The next NYMOC course will be conducted on June 8-11 in New York City.

A one-day SMD2 transition acclimation session will be conducted in Albany on May 4, 6, 13, and 17, and June 2 for Market Participants. This will also be conducted in Houston, Texas on June 22.

A new Corporate "Super-vision" program is being developed for new supervisors with rollout anticipated in June.

| <b>DEPARTMENT</b>  | <b>Current Staff<br/>04/30/2004</b> | <b>Current Openings</b> | <b>Total Budgeted Employees<br/>12/31/2004</b> |
|--|-------------------------------------|-------------------------|--|
| <b>Executive</b>   | 2                                   | 1                       | 3  |
| <b>Finance</b>   | 30                                  | 5                       | 35   |
| <b>Human Resources</b>                                   | 15                                  | 1                       | 16   |
| <b>Information Systems</b>                               | 112                                 | 19                      | 131  |
| <b>Market Services</b>                                   | 45                                  | 2                       | 47   |
| <b>Operations</b>  | 73                                  | 3                       | 76   |
| <b>Strategic Planning</b>                                | 14                                  | 0                       | 14   |
| <b>Corporate &amp; Market Risk</b>                       | 39                                  | 3                       | 42   |
| <b>Government Affairs &amp; Comm.<br/>Communications</b> | 1<br>5                              | 1<br>0                  | 2<br>5   |
| <b>General Counsel<br/>Regulatory Affairs</b>            | 7<br>5                              | 1<br>0                  | 8<br>5   |
| <b>Administration &amp; Compliance</b>                   | 20                                  | 1                       | 21   |
| <b>Total</b>   | <b>368</b>                          | <b>37</b>               | <b>405</b>                                     |

## **10. Government Affairs and Communications**

### **Management Summary**

#### Media Inquires and News Releases:

The NYISO managed 41 inquiries and issued 3 news releases.

Apr. 5 "New York Independent System Operator Commends Final Blackout Report"  
Apr. 8 "New York Independent System Operator Announces Summer Electricity Forecast"  
Apr. 23 "Independent Market Advisor Affirms NYS Electricity Markets Continue to Function Competitively"

#### Interviews & Presentations:

Apr. 20 NYISO Annual Report issued  
Apr. 28 Interview, "Newsday"  
Apr. (ongoing) Organized "Book" interviews  
Apr. (ongoing) Continued organize on "Power Trends" Report

#### Tours:

Apr 1 Croatia Utility Commissioners  
Apr 8 Tokyo Electric  
Apr 21 Israel Electric  
Apr 22 Oak Ridge National Labs

#### Internal Communications:

Web Site: 283 postings were added to the site, 21 Webmaster requests were resolved, and 18 MDEX requests were resolved.  
Apr 23 "The Independent" was published and issued.  
Apr 29 Finalized Web Posting policies

### **Look Ahead**

May 6 Tour, Sandia Labs  
May 13 Power Trends Report and press conference

## **11. Finance**

### **Management Summary**

#### Budget:

The 2003 budget versus actual results indicate a spending underrun of \$1.3 million. An overcollection on load during 2003 also exists, bringing the total potential refund to Market Participants to \$2.2 million. In April, the Board of Directors authorized a refund of these amounts to Market Participants in the April 2004 consolidated invoice to be issued in May 2004.

2004 spending is tracking within budget.

#### Credit Department:

The implementation of the new credit policy is on schedule. A Credit Policy Task Force meeting will be scheduled for late May to review the comments and/or questions submitted by Market Participants.

#### Market Settlements Activities:

The consolidated invoice issued in April 2004 represented the March 2004 Energy and ICAP charges, the March 2003, and November 2003 settlement adjustments, and the March 2002 final settlement.

#### Other Matters:

On April 16, a meeting of the Budget, Standards & Performance subcommittee ("BSP") was held to update the status of the Rate Schedule 1 unbundling study. The presentation focused on revised recommendations for billing determinants and implementation considerations.

On April 28, the NYISO filed its FERC Form No.1 Annual Report for the year ended December 31, 2003.

### **Look Ahead**

BSP meetings have been scheduled for May 4 and 5. Topics for the May 4 meeting will include goal-setting for 2005 corporate incentive goals, and budget vs. actual results to date in 2004. The May 5 meeting is intended to finalize the Rate Schedule 1 unbundling recommendation with market participants.

### **Attachments**

- Attachment 11-A, NYISO Budget vs. Actual Analysis
- Attachment 11-B, Gross Revenue – Energy Market
- Attachment 11-C, Market Participant Energy Billings – Receivables
- Attachment 11-D, Market Participant Energy Billings – Payables

## 12. Administration and Compliance

### Management Summary

#### Facilities and Security:

Construction work continues on the Phase I security upgrades at the Carman Road facility with completion of the foundation and rough-in electrical work. Design features for Phase II security upgrades are being finalized and specifications are being developed. Fuss and O'Neill Engineering has made several recommendations for immediate and mid-term solutions for HVAC and UPS needs in the data centers. The immediate solution at Wolf Road has been implemented and the immediate solution at Carman Road is being completed. A project plan is being developed for the mid-term solutions.

The Western Turnpike facility has been equipped with 24x7 security guard coverage. Staffing at Wolf Road and Washington Avenue, as well as a rover position, is planned for a May implementation.

#### Contract Administration:

- Continued to assist in the site selection process, Phase II conceptual design, and funding supplement application to NYSEERDA;
- Continued to provide contractual support for the infrastructure cooling and power needs for IT equipment;
- Continued participation in the team support for PCC renovation modifications and schedule; and,
- Compliance documentation, Requests for Proposals, and Work Statement support across all departments.

#### Project Management:

April was an exceptionally active month with five major project deployments:

##### A663 DSS Settlements Datamart IV

- Deployed Release E including changes to universes and reports to incorporate new data elements successfully on April 7
- Deployed the November 99 Release 3 components successfully on April 15

##### A647 Station Power Accounting

- Deployed successfully on April 20

##### A660 E-Tagging Integration

- Deployed successfully on April 25

##### A620 AMP IV including Start-up and Minimum Generation

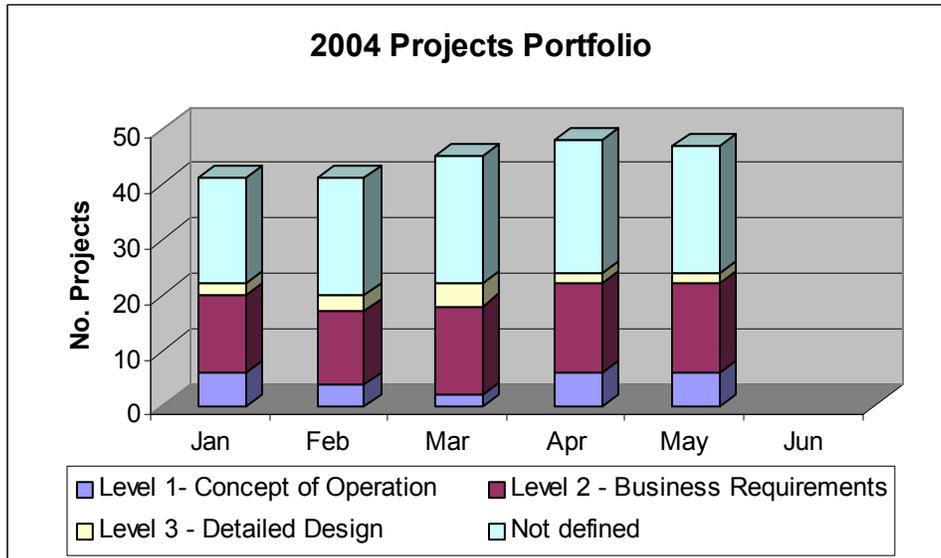
- Deployed successfully into the legacy systems on April 29
- The same functionality will be incorporated into SMD for the deployment in Fall

The table below summarizes the number of projects currently defined in the projects portfolio.

| Project Category     | Previously Scheduled <sup>1</sup> | Completed <sup>2</sup> | Added | Currently Scheduled <sup>3</sup> |
|----------------------|-----------------------------------|------------------------|-------|----------------------------------|
| Priority Projects    | 47                                | 0                      | 0     | 47                               |
| Studies and Training | 13                                | 0                      | 0     | 13                               |
| Total                | 60                                | 0                      | 0     | 60                               |

- Notes: **1** Previously Scheduled – reflects status as of the April 9  
**2** Project completion usually occurs a few weeks after deployment as it includes a lessons learned process, project closure and final documentation and archival.  
**3** Currently Scheduled - reflects status as of May 10

The chart below shows the number of Priority Projects (excluding Studies and Training) in the projects portfolio and their status within the project lifecycle.



Level 1 indicates a project in its preliminary stage with a completed Concept of Operation document. Level 2 is achieved when the Business Requirements document (an FRS) is completed and the project scope is clearly defined.

Level 3 is reached when a system design specification (SDS), defining the software requirements, is completed. As a project progresses through these levels, the resource and cost estimates become more accurate.

### **Look Ahead**

#### Project Management:

Planned project deployments in May include:

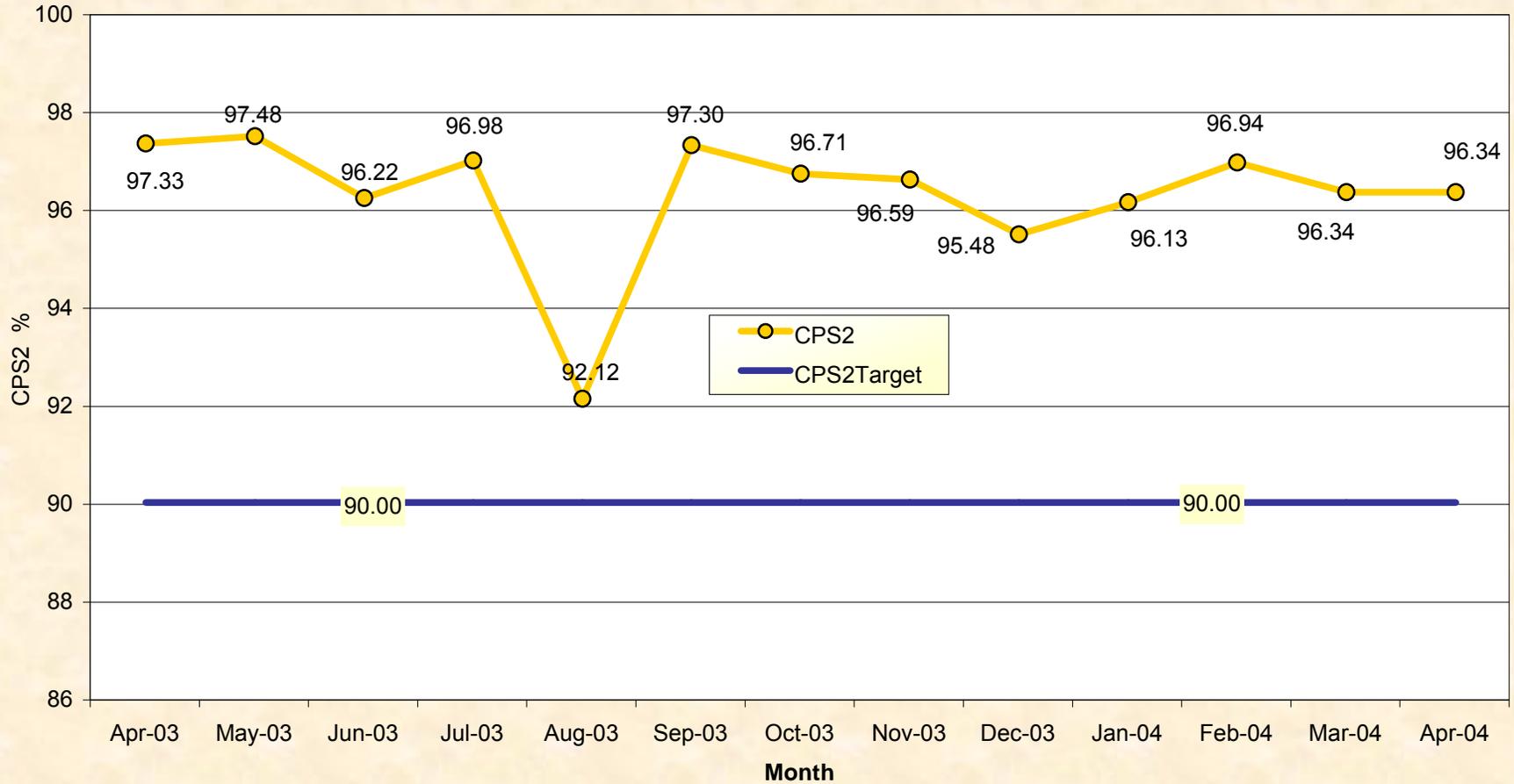
A696 SDAC Replacement

### **Attachments**

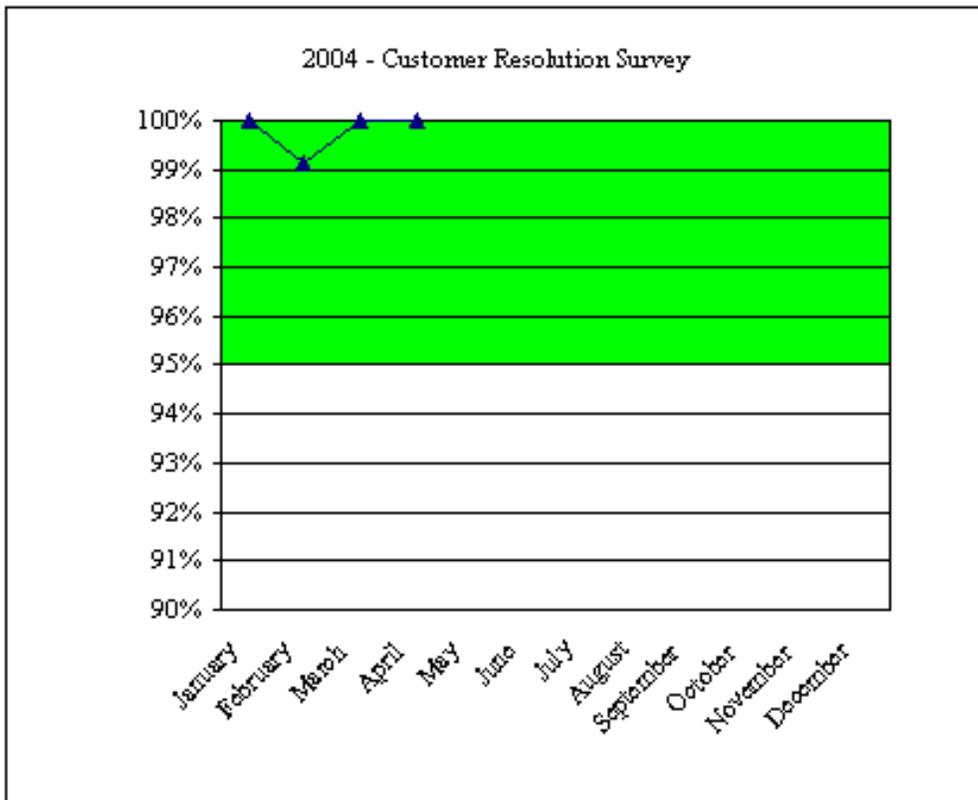
- Attachment 12-A, Summary Report - Status of Priority Projects
- Attachment 12-B, Projects Portfolio

# NERC Control Performance Standard

NYISO Compliance  
Year 2003/2004

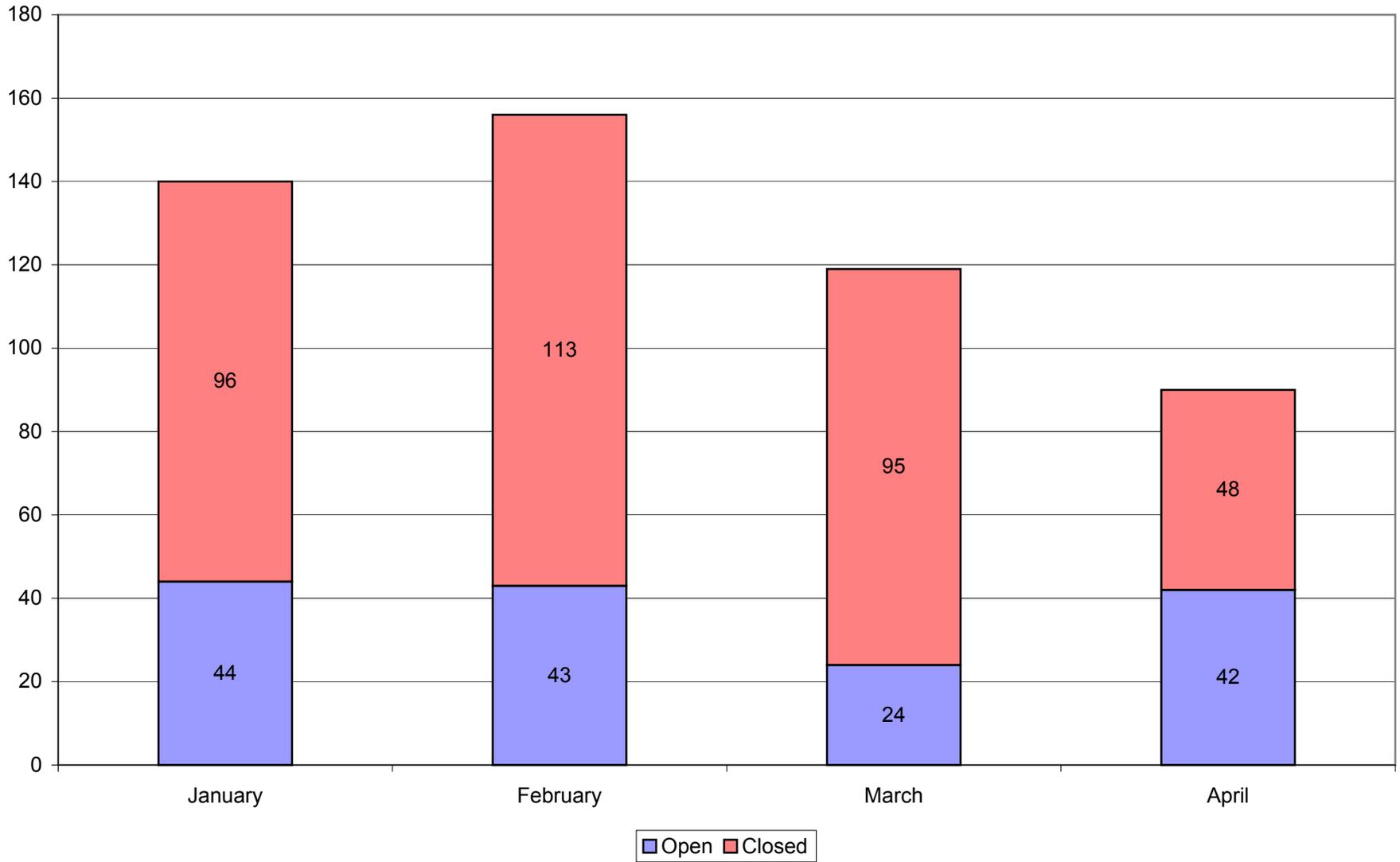


**CPS2 for April = 96.34% Compliance Threshold = 90%**  
**CPS2 measures excessive unscheduled power flow resulting from large Area Control Error (ACE)**

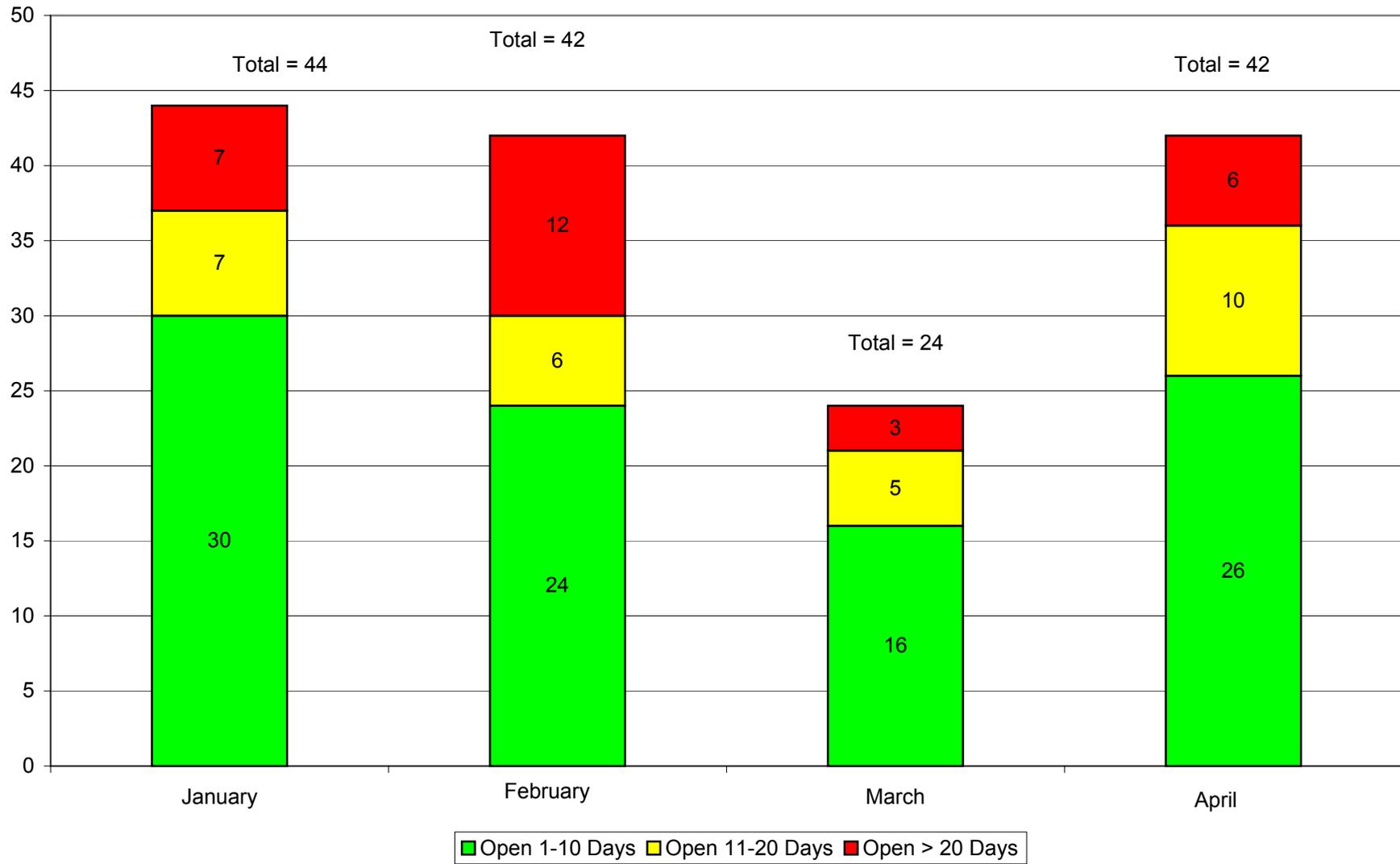


The Customer Resolution Survey Goal for 2004, has been set at 95%. For the month of April, 48 inquiries were sent out. No replies were received that the response was not timely. A 100% (superior) level was achieved for the month. For the period January-April, a total of 352 inquiries were sent out, one (1) customer indicated that the response was not timely. A 99.7% level was achieved.

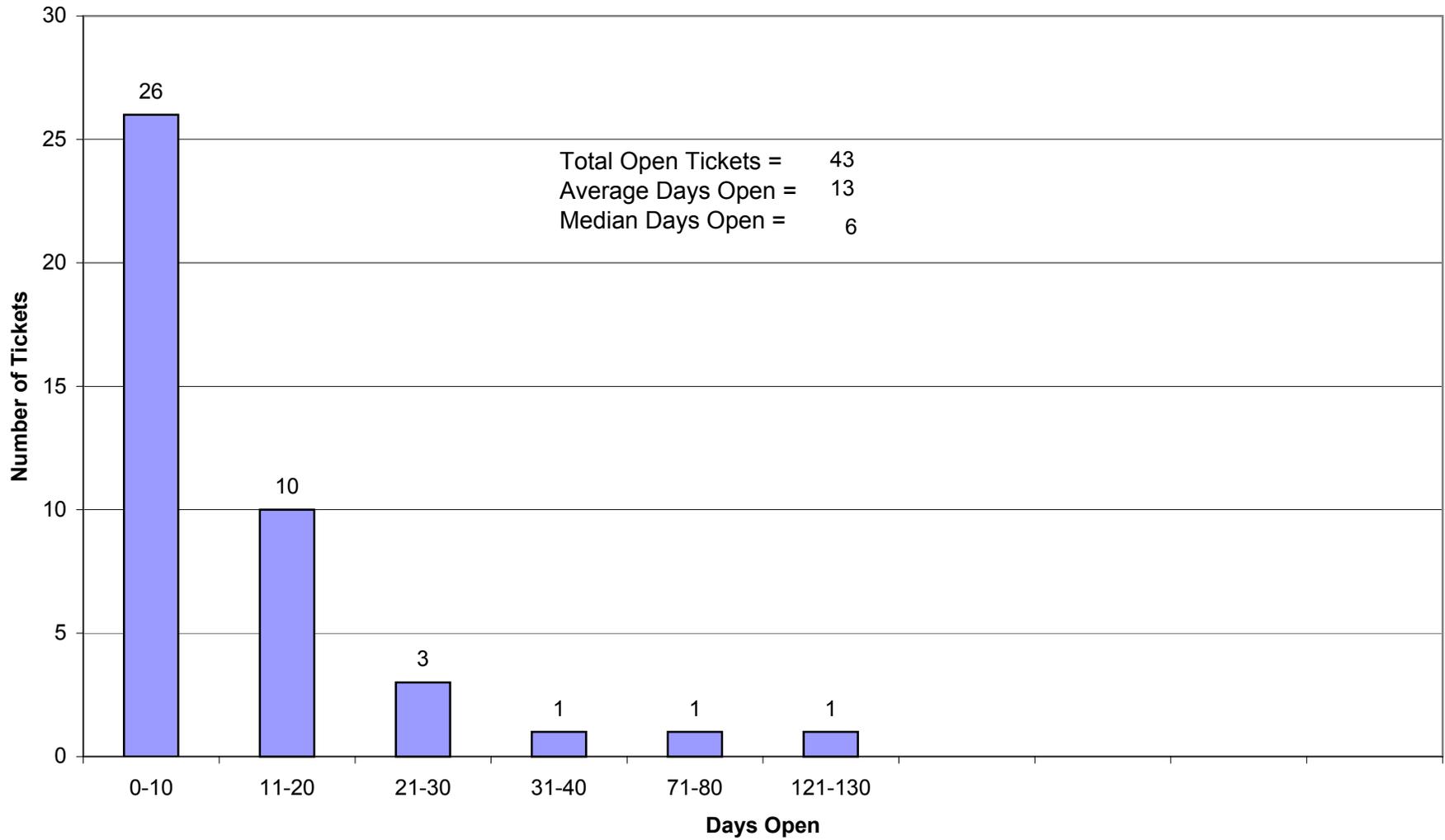
### Tickets Open, Tickets Closed as of End of April, 2004



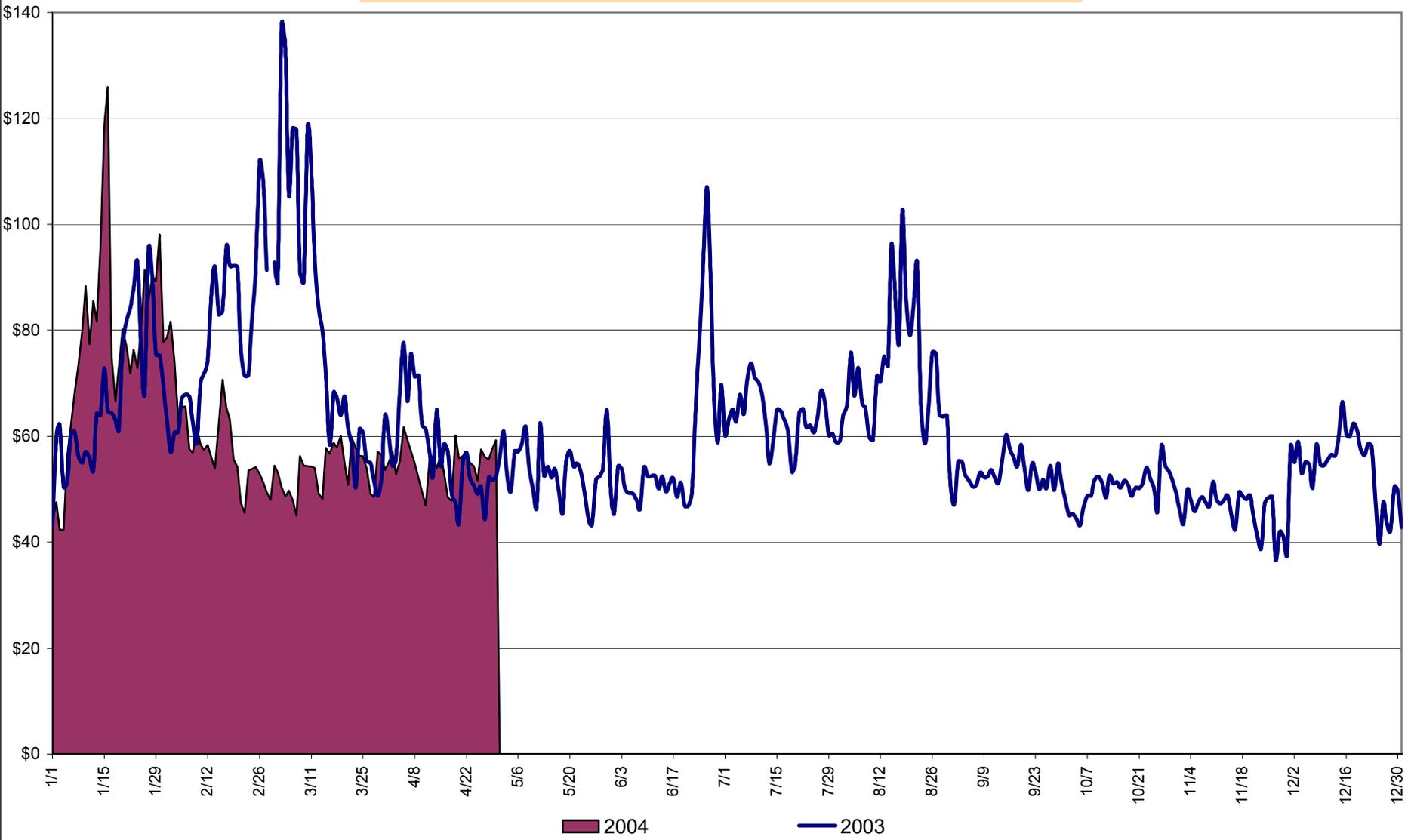
### Open Tickets by Month April 2004



**Number of Tickets Open By Days  
April 2004**



**Daily NYISO Average Cost/MWH (Energy & Ancillary Services)\***  
**2003 Annual Average \$62.35/MWH**  
**April 2003 YTD Average \$72.21/MWH**  
**April 2004 YTD Average \$62.97/MWH**



4-A

**NYISO Average Cost/MWH (Energy and Ancillary Services)\*  
from the LBMP Customer point of view**

| <b>2004</b> |                                 | January     | February    | March       | April       | May | June | July | August | September | October | November | December |
|-------------|---------------------------------|-------------|-------------|-------------|-------------|-----|------|------|--------|-----------|---------|----------|----------|
|             | LBMP                            | 75.70       | 57.11       | 50.60       | 52.49       |     |      |      |        |           |         |          |          |
|             | NTAC                            | 0.47        | 0.42        | 0.55        | 0.51        |     |      |      |        |           |         |          |          |
|             | Reserve                         | 0.27        | 0.14        | 0.20        | 0.17        |     |      |      |        |           |         |          |          |
|             | Regulation                      | 0.18        | 0.31        | 0.25        | 0.13        |     |      |      |        |           |         |          |          |
|             | NYISO Cost of Operations        | 0.73        | 0.73        | 0.73        | 0.73        |     |      |      |        |           |         |          |          |
|             | Uplift                          | 1.88        | 0.47        | 1.25        | 0.76        |     |      |      |        |           |         |          |          |
|             | Voltage Support and Black Start | <u>0.36</u> | <u>0.36</u> | <u>0.36</u> | <u>0.36</u> |     |      |      |        |           |         |          |          |
|             | <b>Avg Monthly Cost</b>         | 79.60       | 59.54       | 53.94       | 55.14       |     |      |      |        |           |         |          |          |
|             | <br>Avg YTD Cost                | 79.60       | 70.60       | 65.23       | 62.97       |     |      |      |        |           |         |          |          |

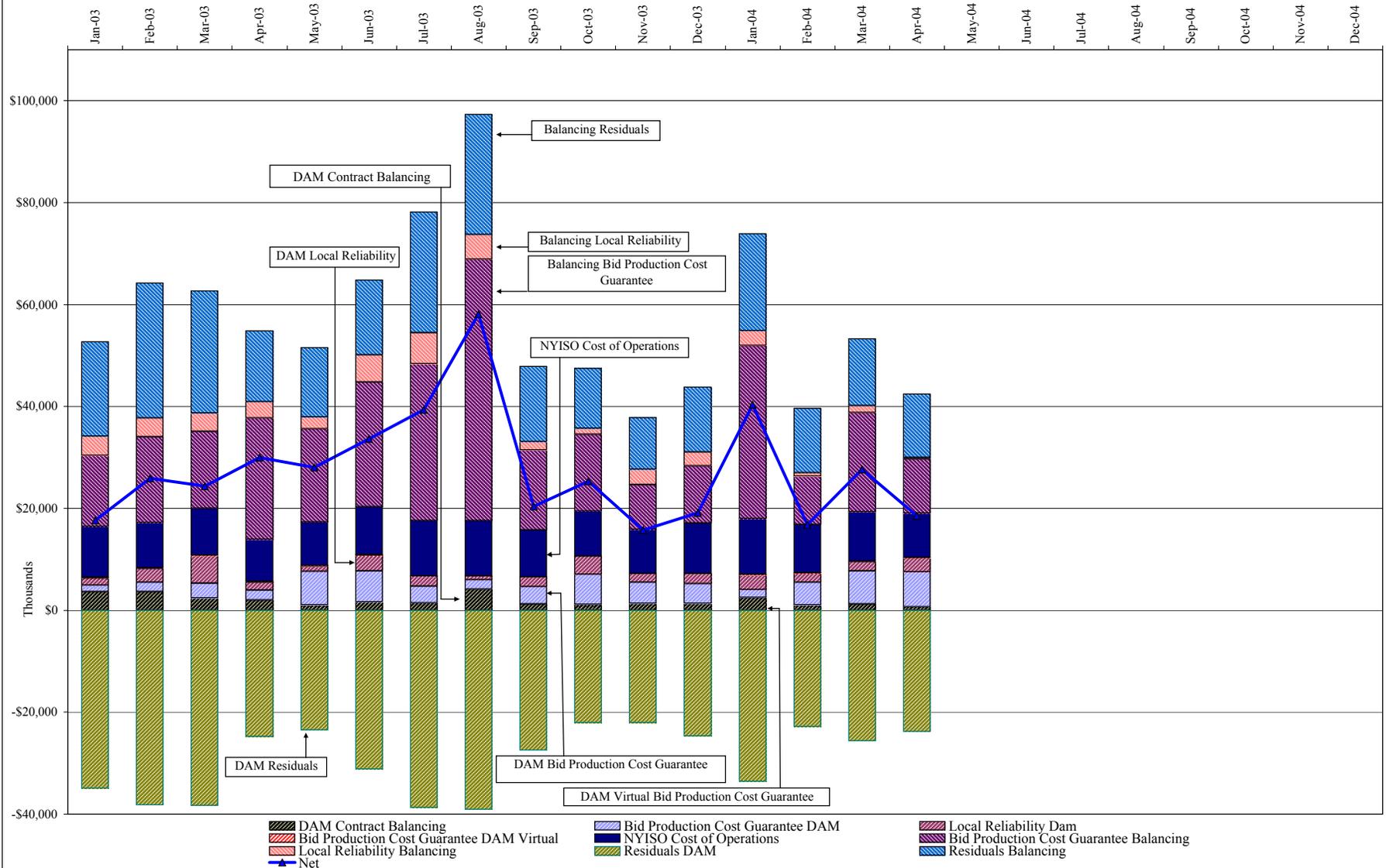
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| <b>2003</b> |                                 | January     | February    | March       | April       | May         | June        | July        | August      | September   | October     | November    | December    |
|-------------|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|             | LBMP                            | 66.34       | 76.59       | 78.31       | 54.28       | 49.76       | 57.37       | 60.10       | 68.14       | 50.82       | 47.05       | 43.37       | 52.19       |
|             | NTAC                            | 0.42        | 0.36        | 0.67        | 0.46        | 0.45        | 0.40        | 0.54        | 0.37        | 0.25        | 0.29        | 0.52        | 0.37        |
|             | Reserve                         | 0.47        | 0.35        | 0.45        | 0.40        | 0.47        | 0.25        | 0.15        | 0.22        | 0.13        | 0.10        | 0.18        | 0.16        |
|             | Regulation                      | 0.27        | 0.28        | 0.39        | 0.32        | 0.65        | 0.32        | 0.19        | 0.18        | 0.33        | 0.51        | 0.46        | 0.25        |
|             | NYISO Cost of Operations        | 0.70        | 0.69        | 0.69        | 0.69        | 0.69        | 0.70        | 0.70        | 0.70        | 0.70        | 0.70        | 0.69        | 0.70        |
|             | Uplift                          | 0.30        | 1.09        | 0.95        | 1.69        | 1.51        | 1.70        | 1.79        | 2.73        | 0.77        | 1.21        | 0.45        | 0.57        |
|             | Voltage Support and Black Start | <u>0.34</u> |
|             | <b>Avg Monthly Cost</b>         | 68.83       | 79.71       | 81.81       | 58.18       | 53.88       | 61.08       | 63.82       | 72.68       | 53.35       | 50.20       | 46.01       | 54.58       |
|             | <br>Avg YTD Cost                | 68.83       | 74.02       | 76.58       | 72.21       | 68.83       | 67.45       | 66.79       | 67.72       | 66.19       | 64.70       | 63.14       | 62.39       |

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\* Excludes ICAP payments

## NYISO Dollar Flows - Uplift - OATT Schedule 1 components



DAM Contract Balancing amounts are for payments made to generating units to 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.  
 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).

## NYISO Markets Transactions

| Transactions by Market 2004                                    | January    | February   | March      | April      | May | June | July | August | September | October | November | December |
|--|------------|------------|------------|------------|-----|------|------|--------|-----------|---------|----------|----------|
| <b>Day Ahead Market MWH</b>                                    | 14,614,304 | 12,806,346 | 12,836,889 | 11,818,317 |     |      |      |        |           |         |          |          |
| DAM LSE Internal LBMP Energy Sales                             | 52%        | 50%        | 51%        | 51%        |     |      |      |        |           |         |          |          |
| DAM External TC LBMP Energy Sales                              | 4%         | 2%         | 3%         | 3%         |     |      |      |        |           |         |          |          |
| DAM Bilateral - Internal Bilaterals                            | 41%        | 45%        | 44%        | 44%        |     |      |      |        |           |         |          |          |
| DAM Bilateral - Import/Non-LBMP Market Bilaterals              | 1%         | 1%         | 1%         | 0%         |     |      |      |        |           |         |          |          |
| DAM Bilateral - Export/Non-LBMP Market Bilaterals              | 1%         | 1%         | 1%         | 1%         |     |      |      |        |           |         |          |          |
| DAM Bilateral - Wheel Through Bilaterals                       | 1%         | 1%         | 1%         | 1%         |     |      |      |        |           |         |          |          |
| <b>Balancing Energy Market MWH</b>                             | 367,460    | 269,220    | 508,837    | 238,876    |     |      |      |        |           |         |          |          |
| Balancing Energy LSE Internal LBMP Energy Sales                | 66%        | 31%        | 61%        | 84%        |     |      |      |        |           |         |          |          |
| Balancing Energy External TC LBMP Energy Sales                 | 57%        | 78%        | 41%        | 38%        |     |      |      |        |           |         |          |          |
| Balancing Energy Bilateral - Internal Bilaterals               | -20%       | 0%         | 0%         | -9%        |     |      |      |        |           |         |          |          |
| Balancing Energy Bilateral - Import/Non-LBMP Market Bilaterals | 0%         | 1%         | 0%         | 0%         |     |      |      |        |           |         |          |          |
| Balancing Energy Bilateral - Export/Non-LBMP Market Bilaterals | 0%         | 0%         | 0%         | 1%         |     |      |      |        |           |         |          |          |
| Balancing Energy Bilateral - Wheel Through Bilaterals          | -4%        | -11%       | -3%        | -14%       |     |      |      |        |           |         |          |          |
| <b>Transactions Summary</b>                                    |            |            |            |            |     |      |      |        |           |         |          |          |
| LBMP   | 58%        | 54%        | 56%        | 55%        |     |      |      |        |           |         |          |          |
| Internal Bilaterals  | 40%        | 44%        | 42%        | 43%        |     |      |      |        |           |         |          |          |
| Import Bilaterals  | 1%         | 1%         | 1%         | 0%         |     |      |      |        |           |         |          |          |
| Export Bilaterals  | 1%         | 1%         | 1%         | 1%         |     |      |      |        |           |         |          |          |
| Wheels Through   | 1%         | 0%         | 1%         | 0%         |     |      |      |        |           |         |          |          |
| <b>Market Share of Total Load</b>                              |            |            |            |            |     |      |      |        |           |         |          |          |
| Day Ahead Market   | 97.5%      | 97.9%      | 96.2%      | 98.0%      |     |      |      |        |           |         |          |          |
| Balancing Energy †   | 2.5%       | 2.1%       | 3.8%       | 2.0%       |     |      |      |        |           |         |          |          |
| Total MWH  | 14,981,764 | 13,075,566 | 13,345,726 | 12,057,193 |     |      |      |        |           |         |          |          |
| Average Daily Energy Sendout/Month GWh                         | 464        | 440        | 416        | 393        |     |      |      |        |           |         |          |          |

## Transactions by Market 2003

|  |            |            |            |            |            |            |            |            |            |            |            |            |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Day Ahead Market MWH</b>                                    | 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 - Import/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%         |
| <b>Balancing Energy Market MWH</b>                             | 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 - Import/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%        |
| <b>Transactions Summary</b>                                    |            |            |            |            |            |            |            |            |            |            |            |            |
| LBMP   | 49%        | 50%        | 49%        | 52%        | 49%        | 52%        | 56%        | 58%        | 51%        | 52%        | 51%        | 52%        |
| Internal Bilaterals  | 48%        | 47%        | 48%        | 45%        | 48%        | 46%        | 42%        | 40%        | 46%        | 46%        | 47%        | 45%        |
| Import Bilaterals  | 1%         | 1%         | 1%         | 1%         | 0%         | 0%         | 0%         | 0%         | 0%         | 0%         | 0%         | 0%         |
| Export Bilaterals  | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         |
| Wheels Through   | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 1%         | 0%         | 1%         | 1%         | 2%         |
| <b>Market Share of Total Load</b>                              |            |            |            |            |            |            |            |            |            |            |            |            |
| Day Ahead Market   | 97.6%      | 97.8%      | 97.2%      | 98.1%      | 97.7%      | 97.9%      | 98.7%      | 100.4%     | 97.1%      | 97.4%      | 97.5%      | 97.3%      |
| Balancing Energy †   | 2.4%       | 2.2%       | 2.8%       | 1.9%       | 2.3%       | 2.1%       | 1.3%       | -0.4% *    | 2.9%       | 2.6%       | 2.5%       | 2.7%       |
| Total MWH  | 14,535,291 | 12,981,249 | 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 |
| Average Daily Energy Sendout/Month GWh                         | 458        | 450        | 418        | 393        | 382        | 432        | 497        | 498        | 433        | 397        | 402        | 435        |

† 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.

Notes: Percent totals may not equal 100% due to rounding.  
Virtual Transactions are not reflected in this chart.

### NYISO Markets 2004 Energy Statistics

|  | January | February | March   | April   | May | June | July | August | September | October | November | December |
|--|---------|----------|---------|---------|-----|------|------|--------|-----------|---------|----------|----------|
| <b><u>DAY AHEAD LBMP</u></b>           |         |          |         |         |     |      |      |        |           |         |          |          |
| Price *                                | \$72.12 | \$55.31  | \$49.08 | \$51.01 |     |      |      |        |           |         |          |          |
| Standard Deviation                     | \$25.99 | \$14.40  | \$10.90 | \$11.42 |     |      |      |        |           |         |          |          |
| Load Wtg.Price **                      | \$75.01 | \$56.90  | \$50.44 | \$52.50 |     |      |      |        |           |         |          |          |
| <b><u>BME *** LBMP</u></b>             |         |          |         |         |     |      |      |        |           |         |          |          |
| Price *                                | \$77.51 | \$54.41  | \$53.01 | \$56.94 |     |      |      |        |           |         |          |          |
| Standard Deviation                     | \$37.54 | \$15.73  | \$16.25 | \$18.41 |     |      |      |        |           |         |          |          |
| Load Wtg.Price **                      | \$80.51 | \$55.89  | \$54.71 | \$58.89 |     |      |      |        |           |         |          |          |
| <b><u>REAL TIME LBMP</u></b>           |         |          |         |         |     |      |      |        |           |         |          |          |
| Price *                                | \$73.72 | \$52.95  | \$49.56 | \$50.83 |     |      |      |        |           |         |          |          |
| Standard Deviation                     | \$32.61 | \$15.04  | \$17.75 | \$14.15 |     |      |      |        |           |         |          |          |
| Load Wtg.Price **                      | \$76.85 | \$54.33  | \$51.27 | \$52.36 |     |      |      |        |           |         |          |          |
| Average Daily Energy Sendout/Month GWh | 464     | 440      | 416     | 393     |     |      |      |        |           |         |          |          |

### NYISO Markets 2003 Energy Statistics

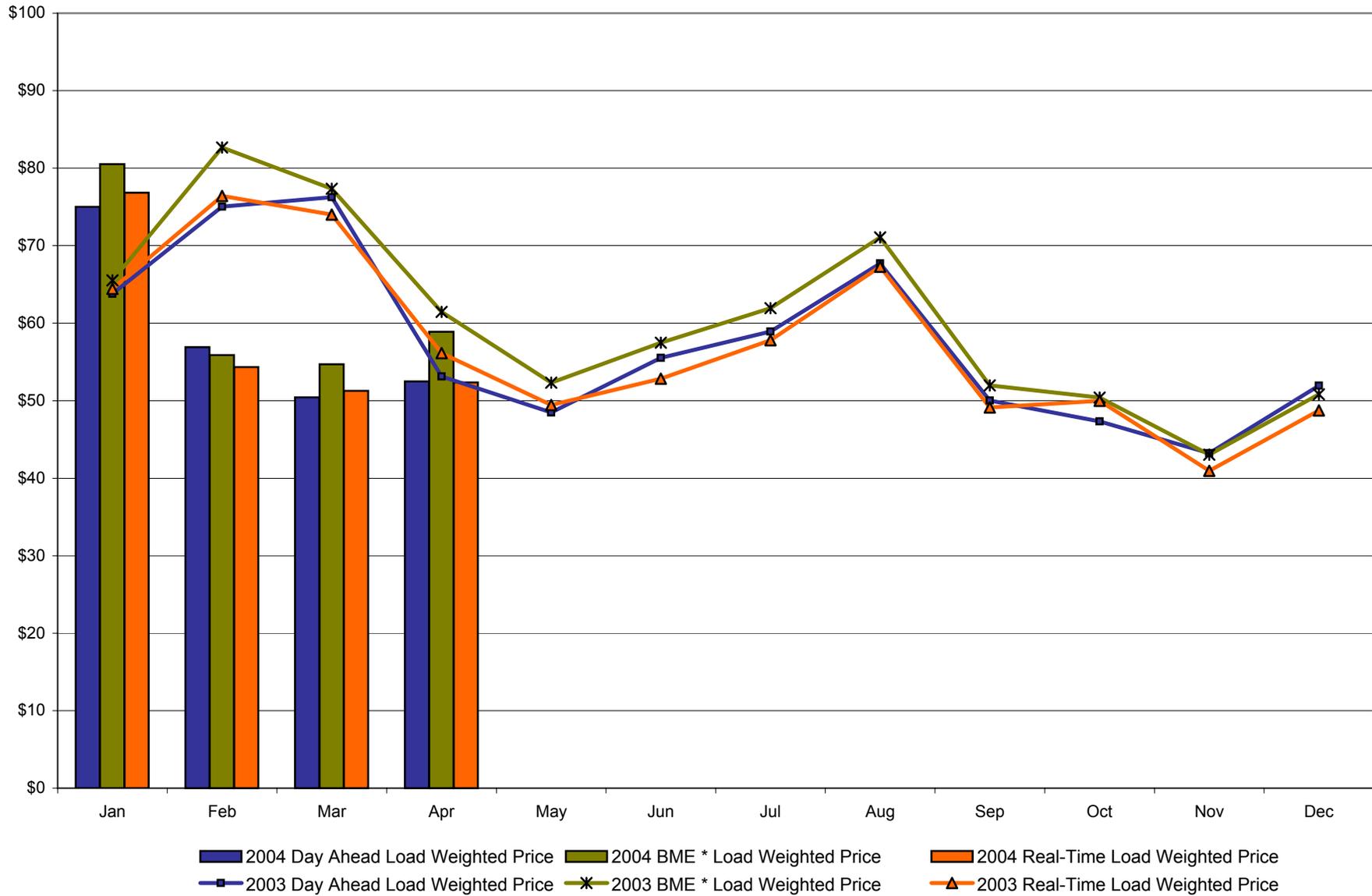
|  | January | February | March   | April   | May     | June    | July    | August  | September | October | November | December |
|--|---------|----------|---------|---------|---------|---------|---------|---------|-----------|---------|----------|----------|
| <b><u>DAY AHEAD LBMP</u></b>           |         |          |         |         |         |         |         |         |           |         |          |          |
| 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  |
| <b><u>BME *** LBMP</u></b>             |         |          |         |         |         |         |         |         |           |         |          |          |
| 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  |
| <b><u>REAL TIME LBMP</u></b>           |         |          |         |         |         |         |         |         |           |         |          |          |
| 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      |

\* Average zonal load weighted prices

\*\* Average zonal load weighted prices, load weighted in each hour

\*\*\* Commonly referred to as Hour Ahead Market (HAM)

**NYISO Monthly Average Internal LBMPs  
2003 - 2004**



\* Commonly referred to as Hour Ahead Market (HAM)

4-F

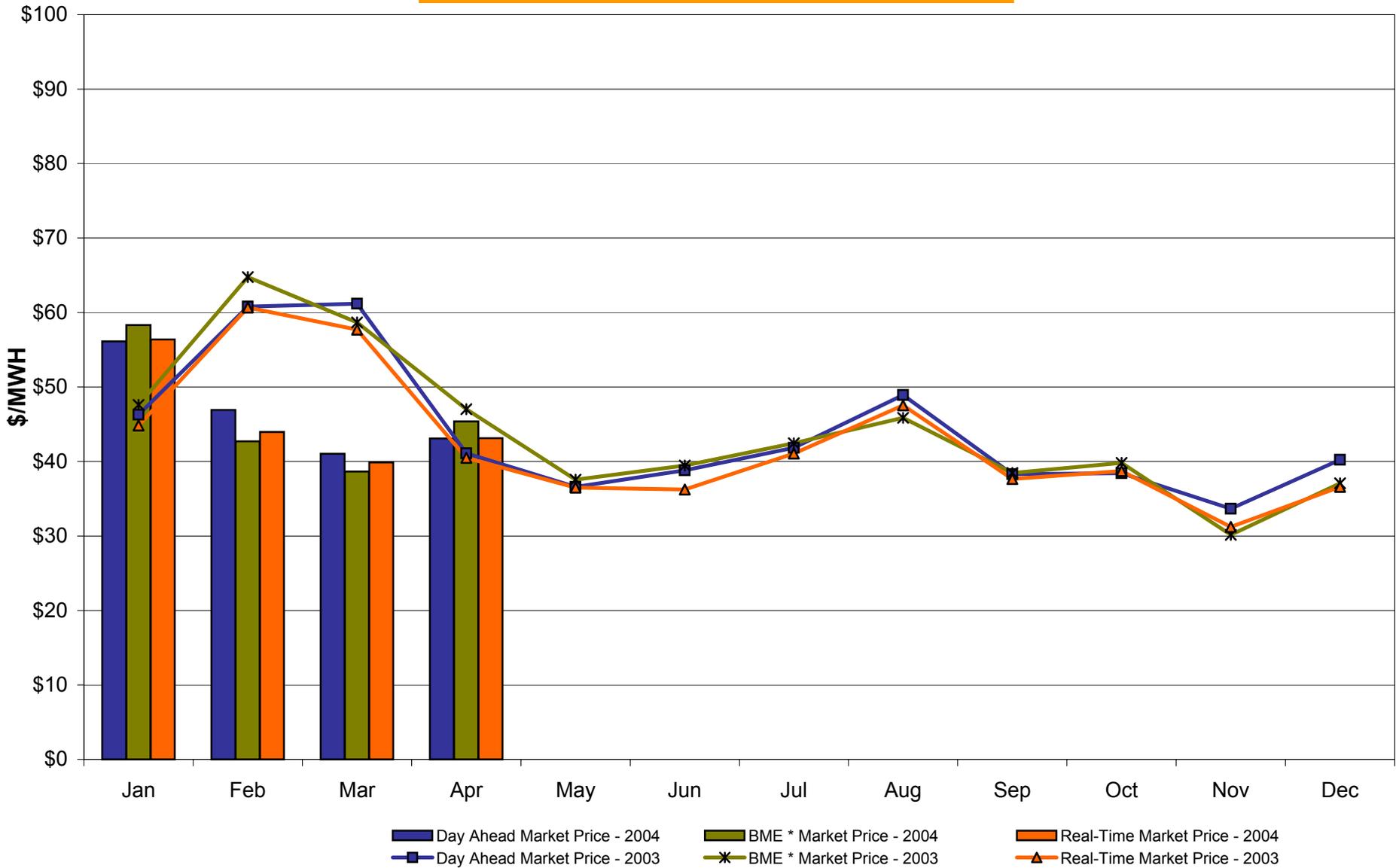
**April 2004 Zonal Statistics for NYISO (\$/MWH)**

|                              | <b>WEST<br/>Zone A</b>            | <b>GENESEE<br/>Zone B</b>          | <b>NORTH<br/>Zone D</b> | <b>CENTRAL<br/>Zone C</b>         | <b>MOHAWK<br/>VALLEY<br/>Zone E</b> | <b>CAPITAL<br/>Zone F</b> | <b>HUDSON<br/>VALLEY<br/>Zone G</b> | <b>MILLWOOD<br/>Zone H</b> | <b>DUNWOODIE<br/>Zone I</b> | <b>NEW YORK<br/>CITY<br/>Zone J</b> | <b>LONG<br/>ISLAND<br/>Zone K</b> |
|------------------------------|-----------------------------------|------------------------------------|-------------------------|-----------------------------------|-------------------------------------|---------------------------|-------------------------------------|----------------------------|-----------------------------|-------------------------------------|-----------------------------------|
| <b><u>DAY AHEAD LBMP</u></b> |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 43.09                             | 45.78                              | 46.47                   | 46.60                             | 47.49                               | 50.33                     | 49.68                               | 49.66                      | 50.34                       | 55.73                               | 55.46                             |
| Standard Deviation           | 1713.72                           | 10.51                              | 10.19                   | 10.54                             | 10.61                               | 11.03                     | 10.80                               | 10.98                      | 11.25                       | 13.60                               | 11.63                             |
| <b><u>BME ** LBMP</u></b>    |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 45.37                             | 47.12                              | 50.82                   | 50.78                             | 51.67                               | 52.85                     | 53.79                               | 53.47                      | 54.20                       | 63.19                               | 68.45                             |
| Standard Deviation           | 46.60                             | 12.88                              | 13.29                   | 13.73                             | 13.82                               | 14.14                     | 14.37                               | 14.30                      | 14.51                       | 22.11                               | 64.93                             |
| <b><u>REAL TIME LBMP</u></b> |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 43.12                             | 46.43                              | 46.73                   | 46.57                             | 47.80                               | 51.08                     | 49.05                               | 49.45                      | 50.20                       | 55.45                               | 54.52                             |
| Standard Deviation           | 50.78                             | 12.99                              | 13.17                   | 13.15                             | 13.48                               | 14.97                     | 14.12                               | 14.34                      | 14.59                       | 17.04                               | 15.60                             |
|                              | <b>ONTARIO<br/>IMO<br/>Zone O</b> | <b>HYDRO<br/>QUEBEC<br/>Zone M</b> | <b>PJM<br/>Zone P</b>   | <b>NEW<br/>ENGLAND<br/>Zone N</b> |                                     |                           |                                     |                            |                             |                                     |                                   |
| <b><u>DAY AHEAD LBMP</u></b> |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 42.36                             | 47.04                              | 44.62                   | 50.16                             |                                     |                           |                                     |                            |                             |                                     |                                   |
| Standard Deviation           | 9.72                              | 10.42                              | 10.90                   | 11.06                             |                                     |                           |                                     |                            |                             |                                     |                                   |
| <b><u>BME ** LBMP</u></b>    |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 44.30                             | 51.40                              | 48.75                   | 53.33                             |                                     |                           |                                     |                            |                             |                                     |                                   |
| Standard Deviation           | 12.50                             | 13.49                              | 14.44                   | 14.46                             |                                     |                           |                                     |                            |                             |                                     |                                   |
| <b><u>REAL TIME LBMP</u></b> |                                   |                                    |                         |                                   |                                     |                           |                                     |                            |                             |                                     |                                   |
| Unweighted Price *           | 43.46                             | 47.19                              | 44.55                   | 49.97                             |                                     |                           |                                     |                            |                             |                                     |                                   |
| Standard Deviation           | 12.52                             | 13.42                              | 13.15                   | 14.73                             |                                     |                           |                                     |                            |                             |                                     |                                   |

\* Straight zonal LBMP averages

\*\* Commonly referred to as Hour Ahead Market (HAM)

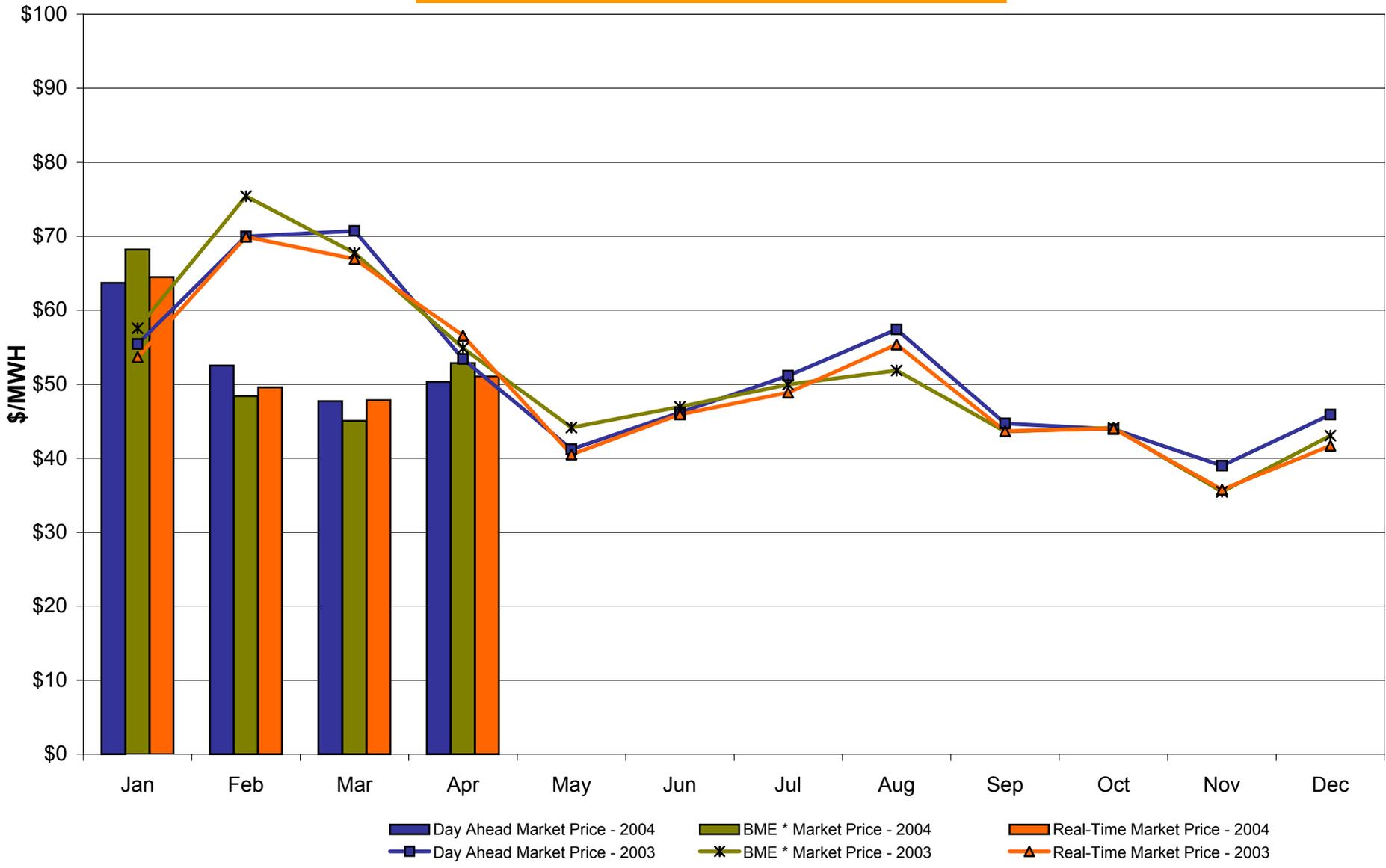
## West Zone A Monthly Average LBMP Prices 2003 - 2004



\* Commonly referred to as Hour Ahead Market (HAM)

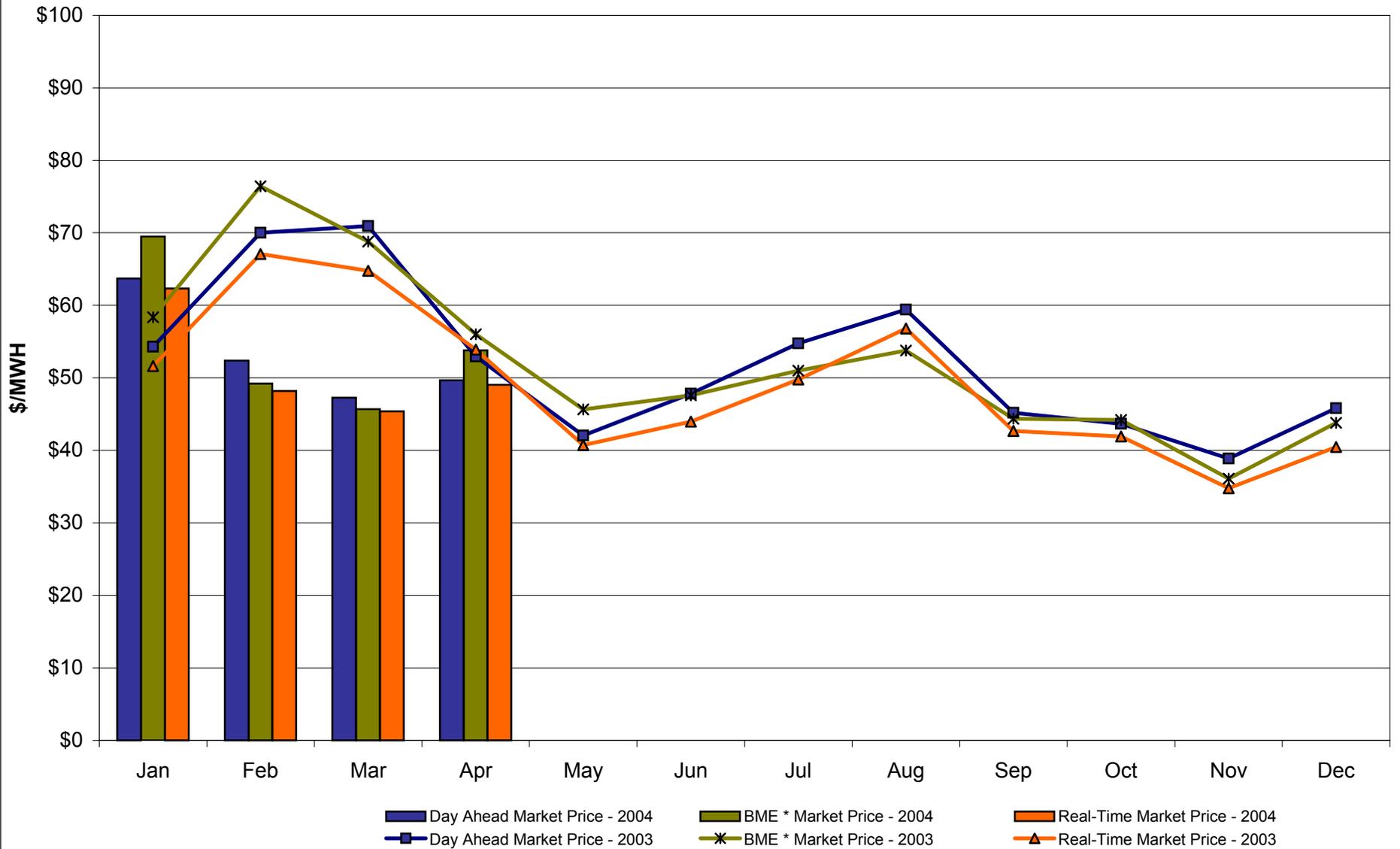
4-H

## Capital Zone F Monthly Average LBMP Prices 2003 - 2004



\* Commonly referred to as Hour Ahead Market (HAM)

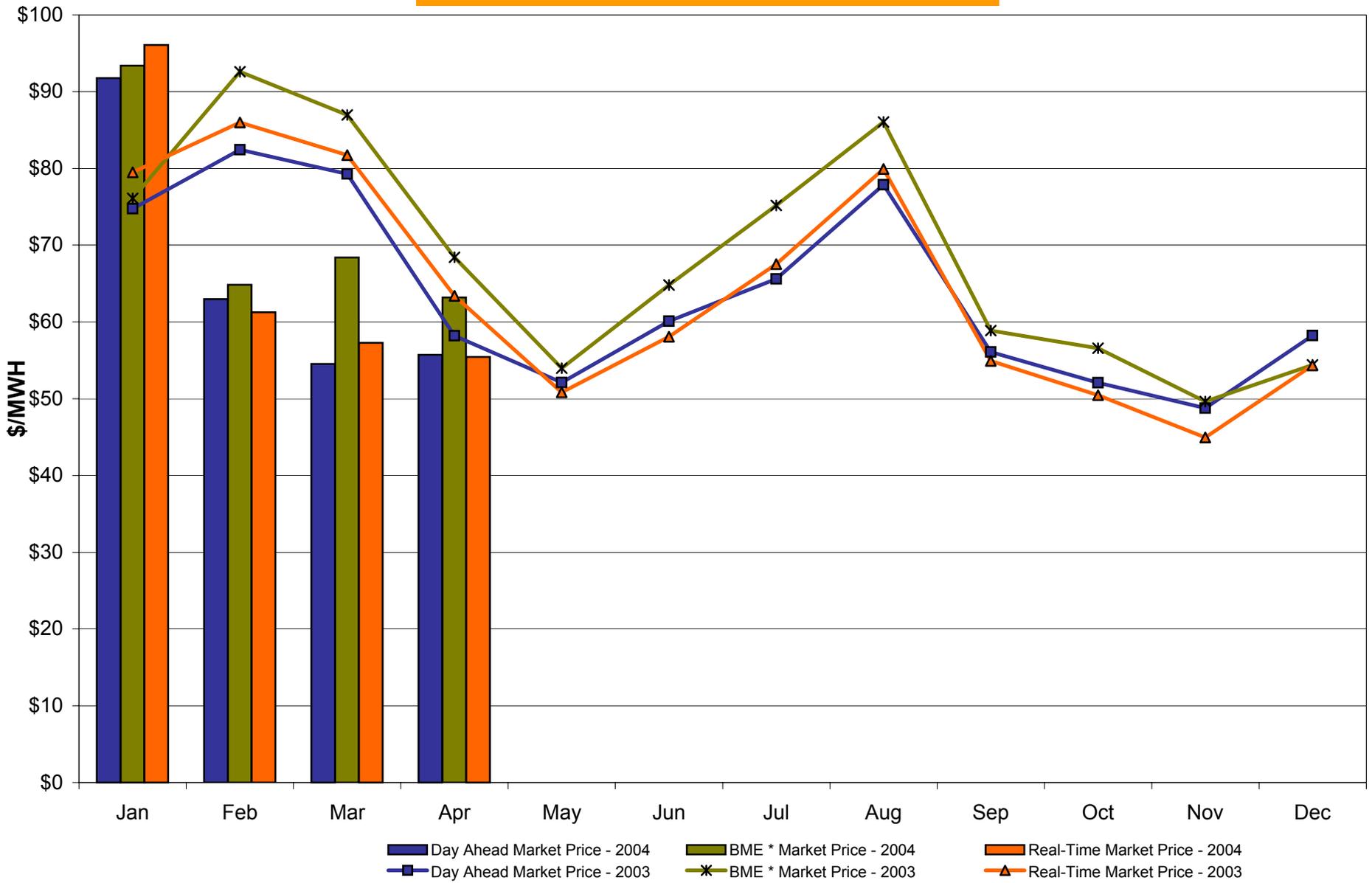
## Hudson Valley Zone G Monthly Average LBMP Prices 2003 - 2004



\* Commonly referred to as Hour Ahead Market (HAM)

4-J

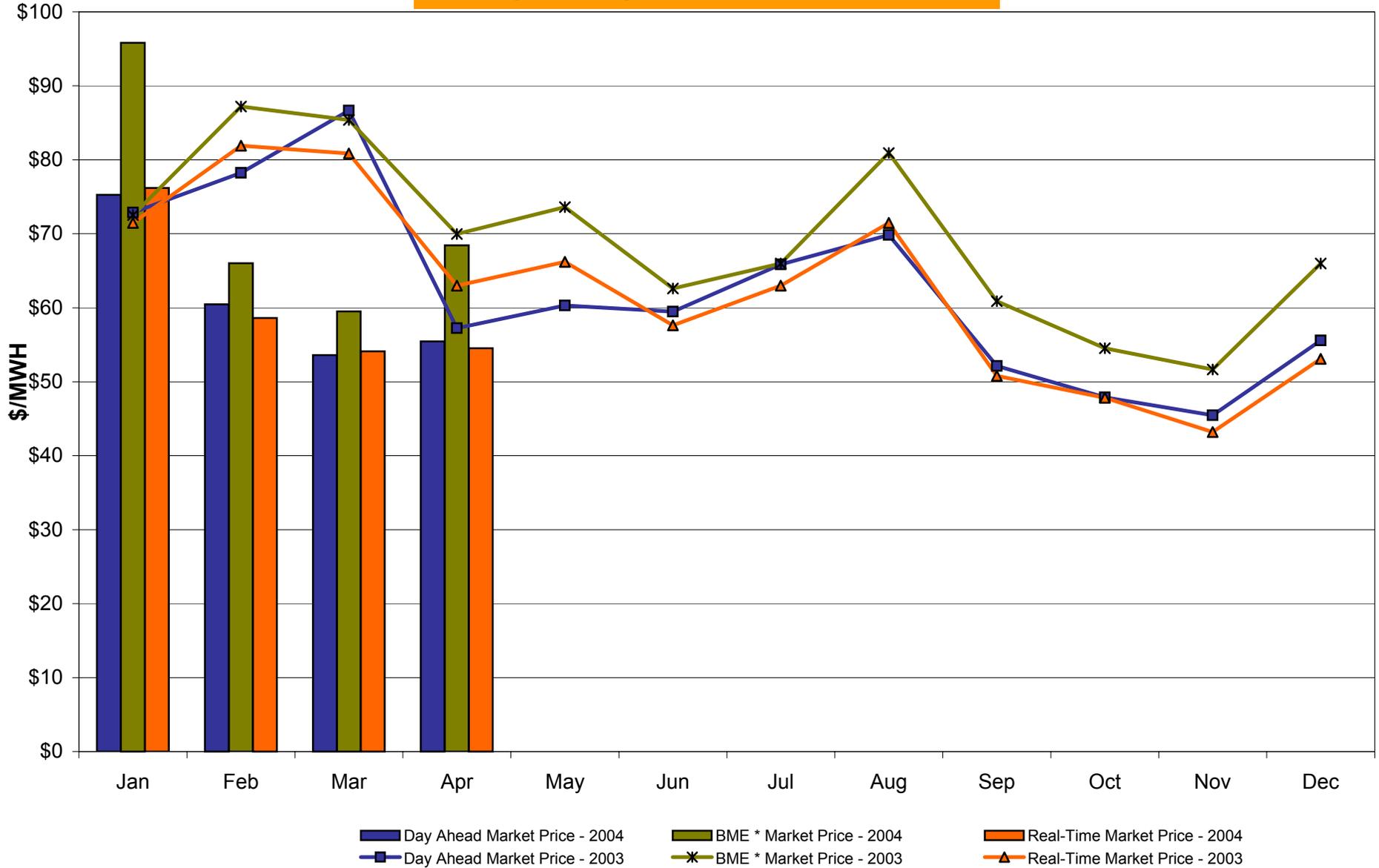
## NYC Zone J Monthly Average LBMP Prices 2003 - 2004



\* Commonly referred to as Hour Ahead Market (HAM)

4-K

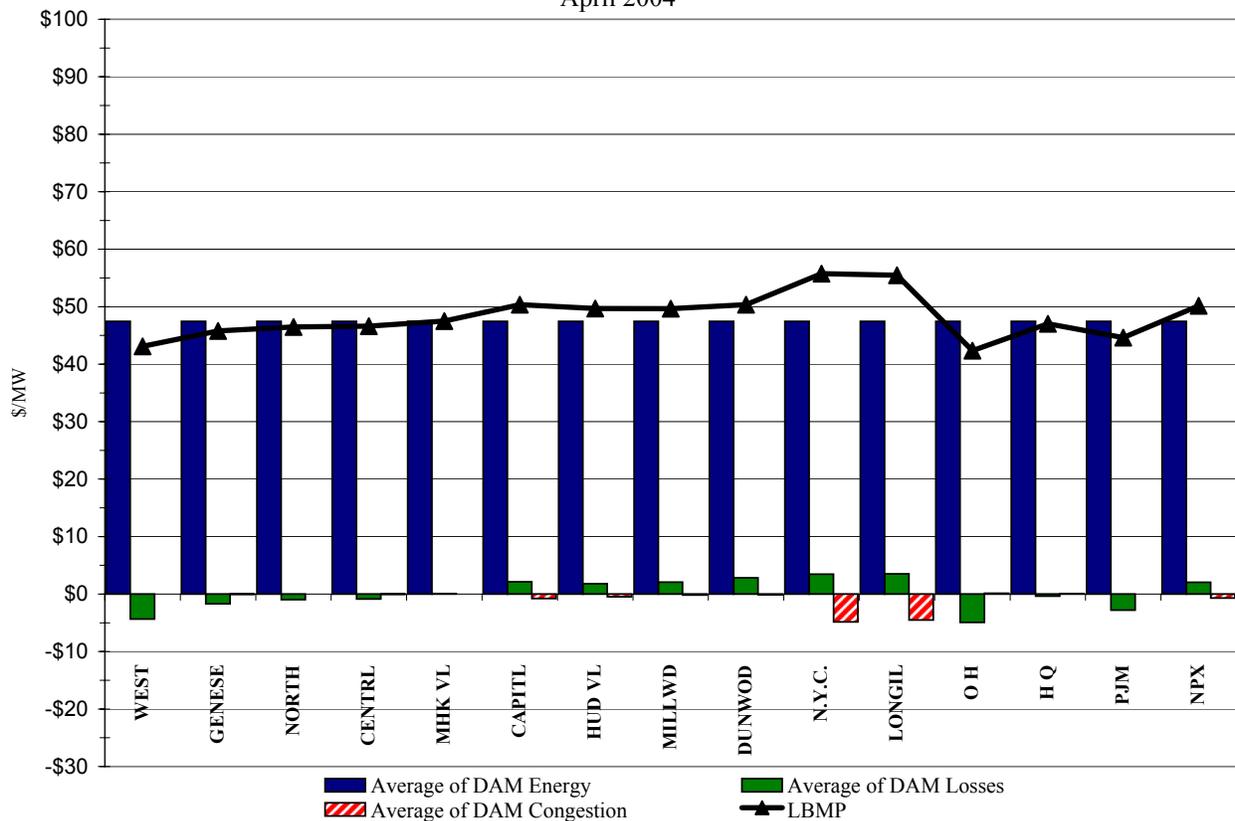
## Long Island Zone K Monthly Average LBMP Prices 2003 - 2004



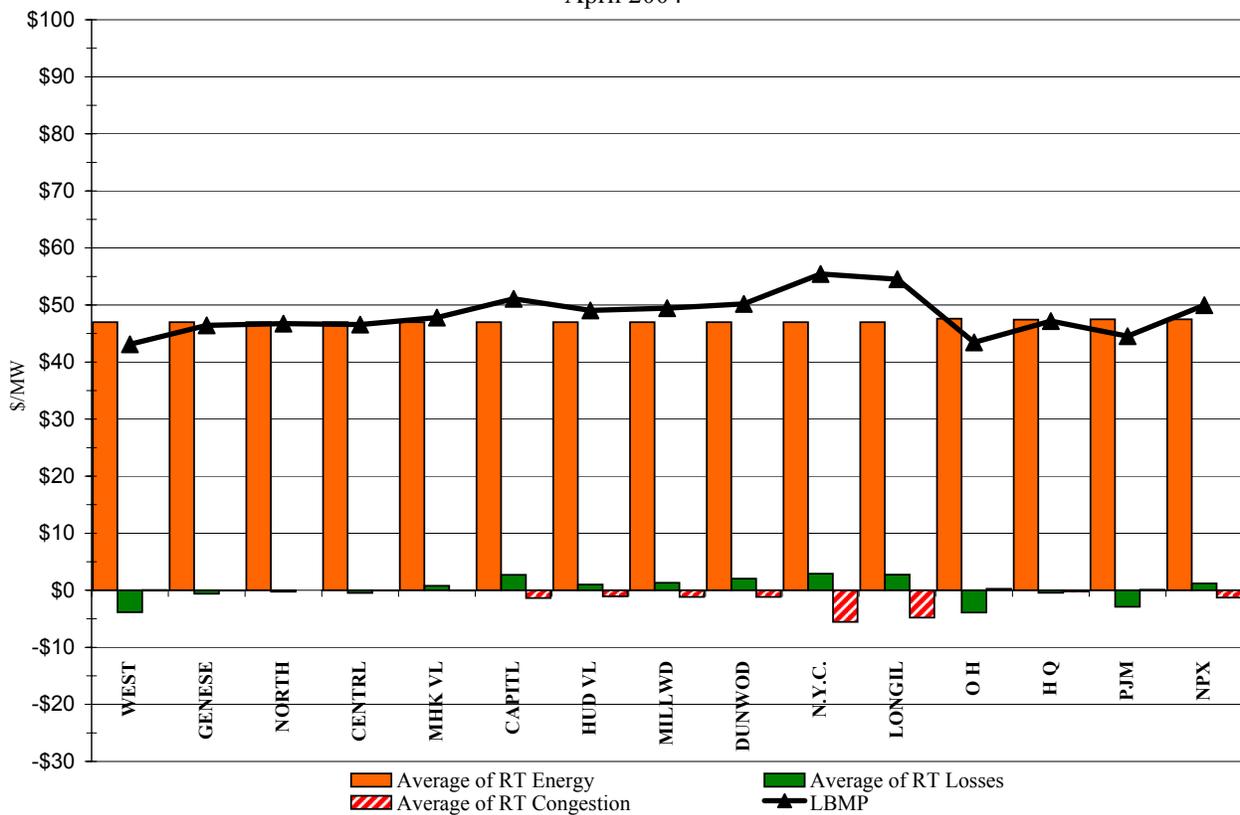
4-L

\* Commonly referred to as Hour Ahead Market (HAM)

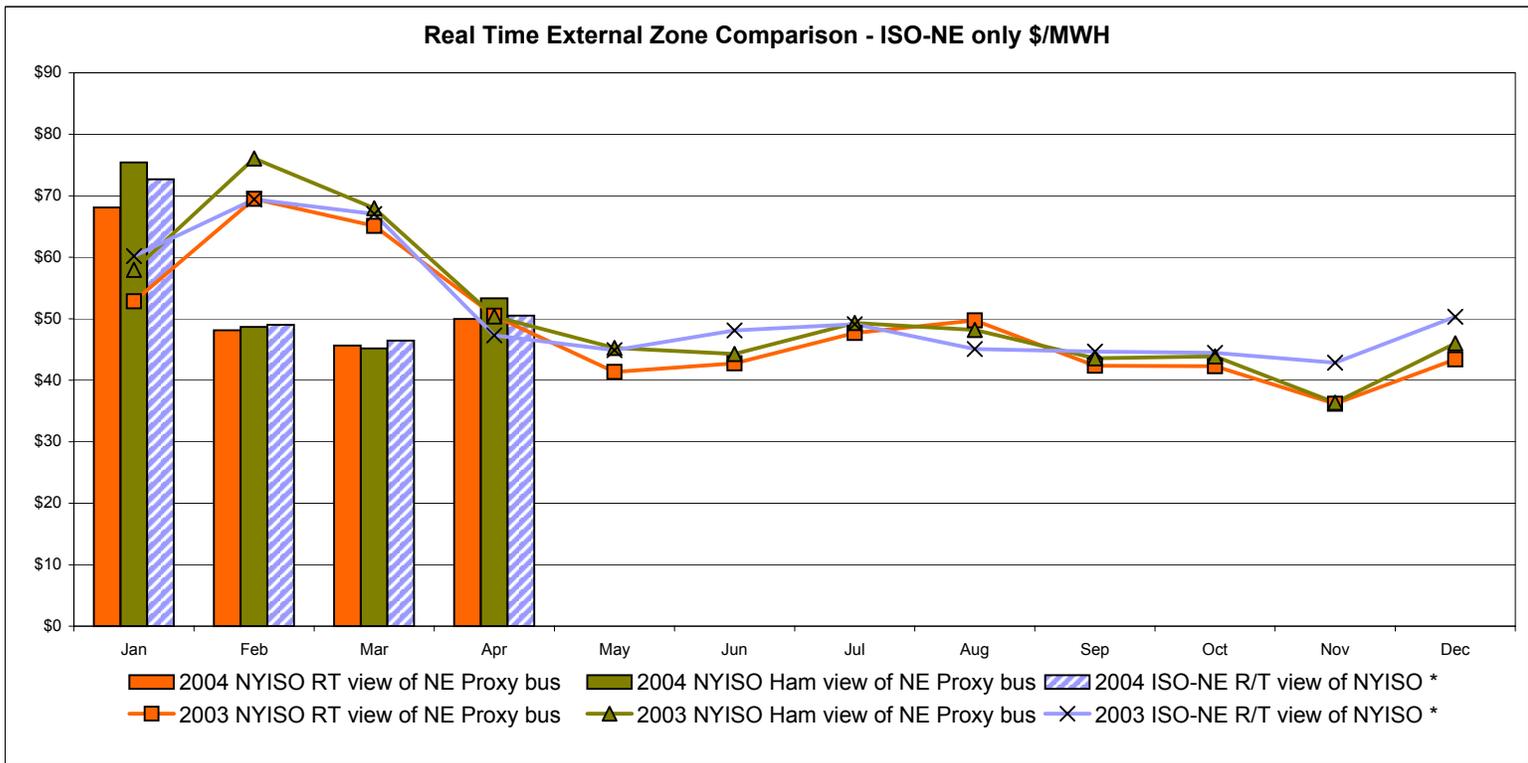
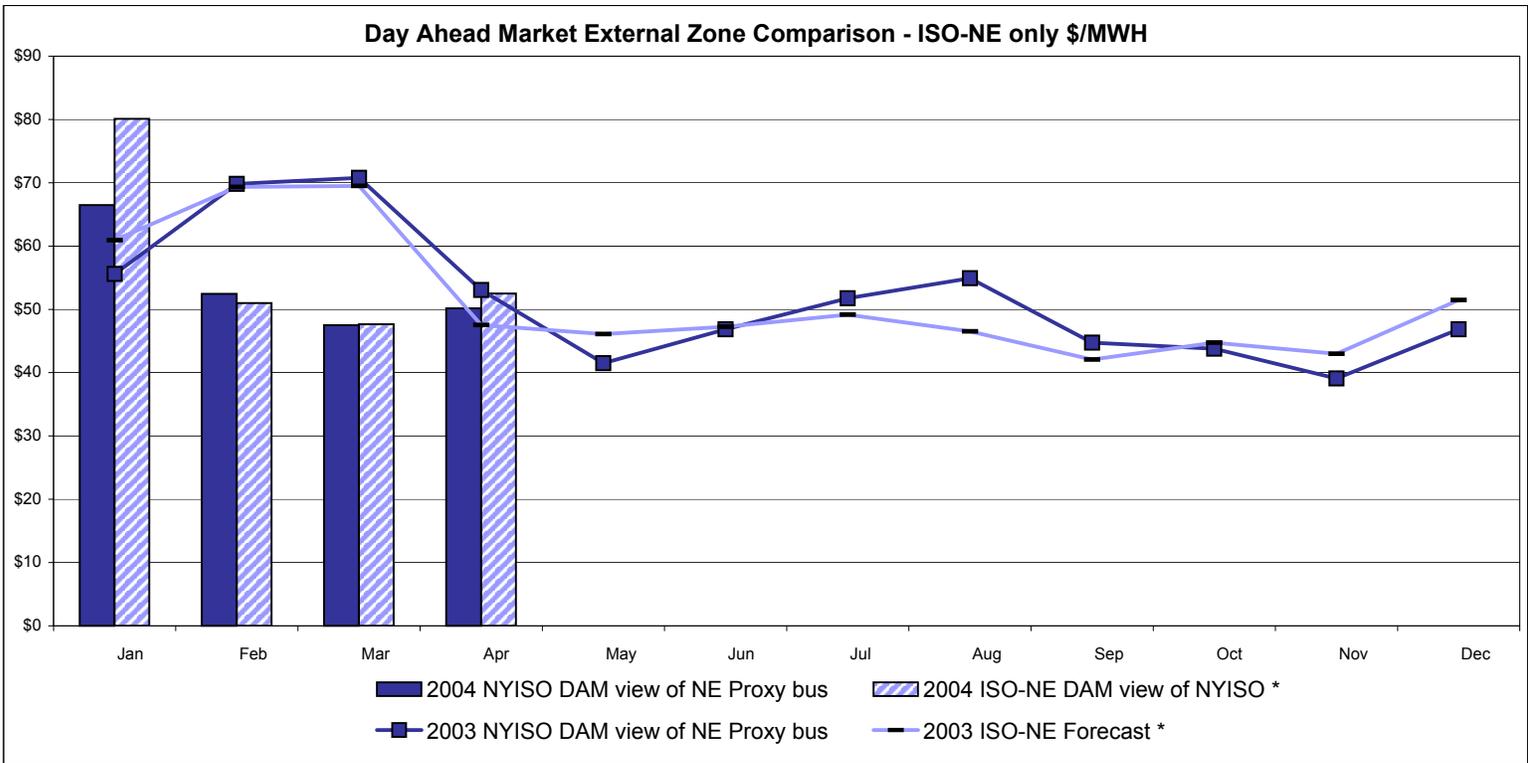
DAM Zonal Unweighted Monthly Average LBMP Components  
April 2004



RT Zonal Unweighted Monthly Average LBMP Components  
April 2004



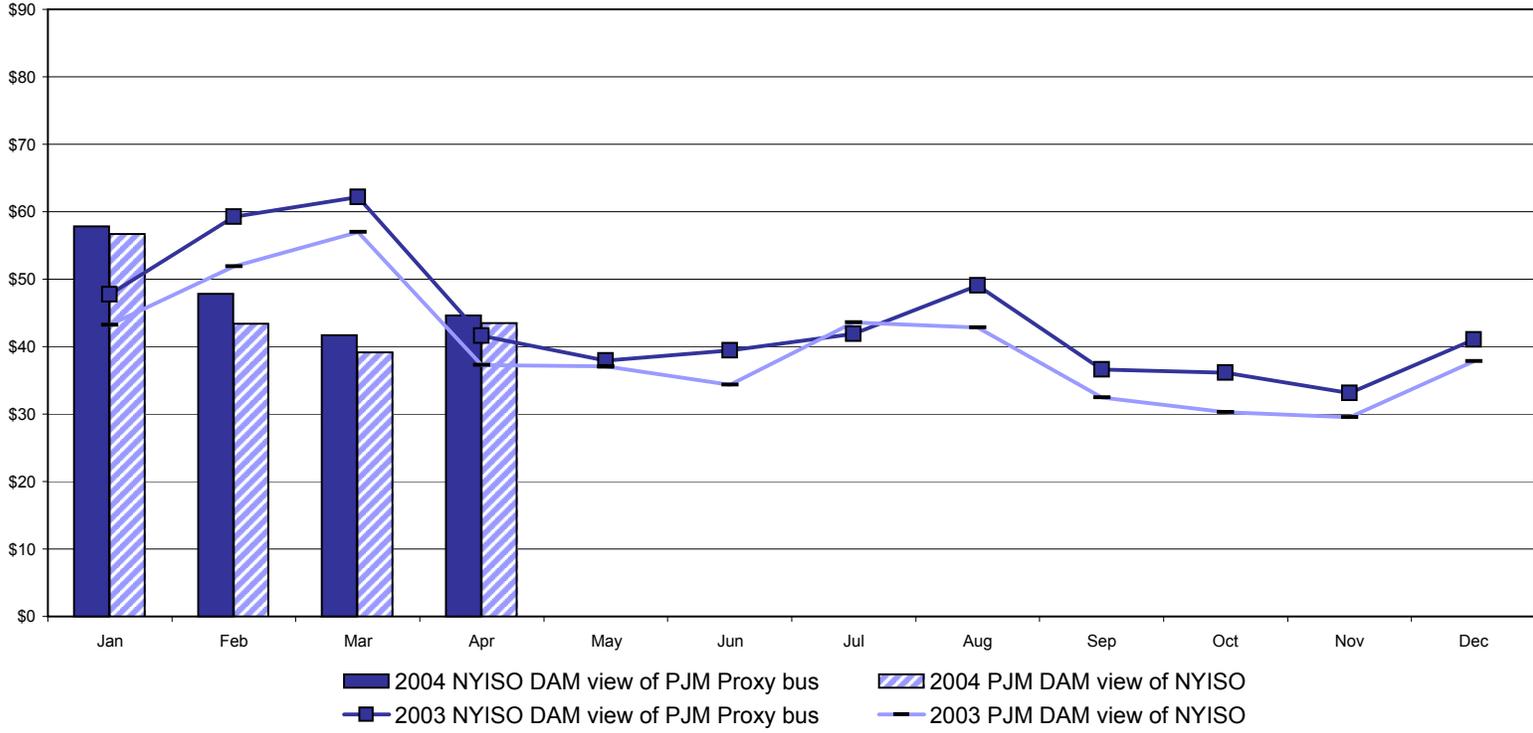
# External Comparison ISO-NE



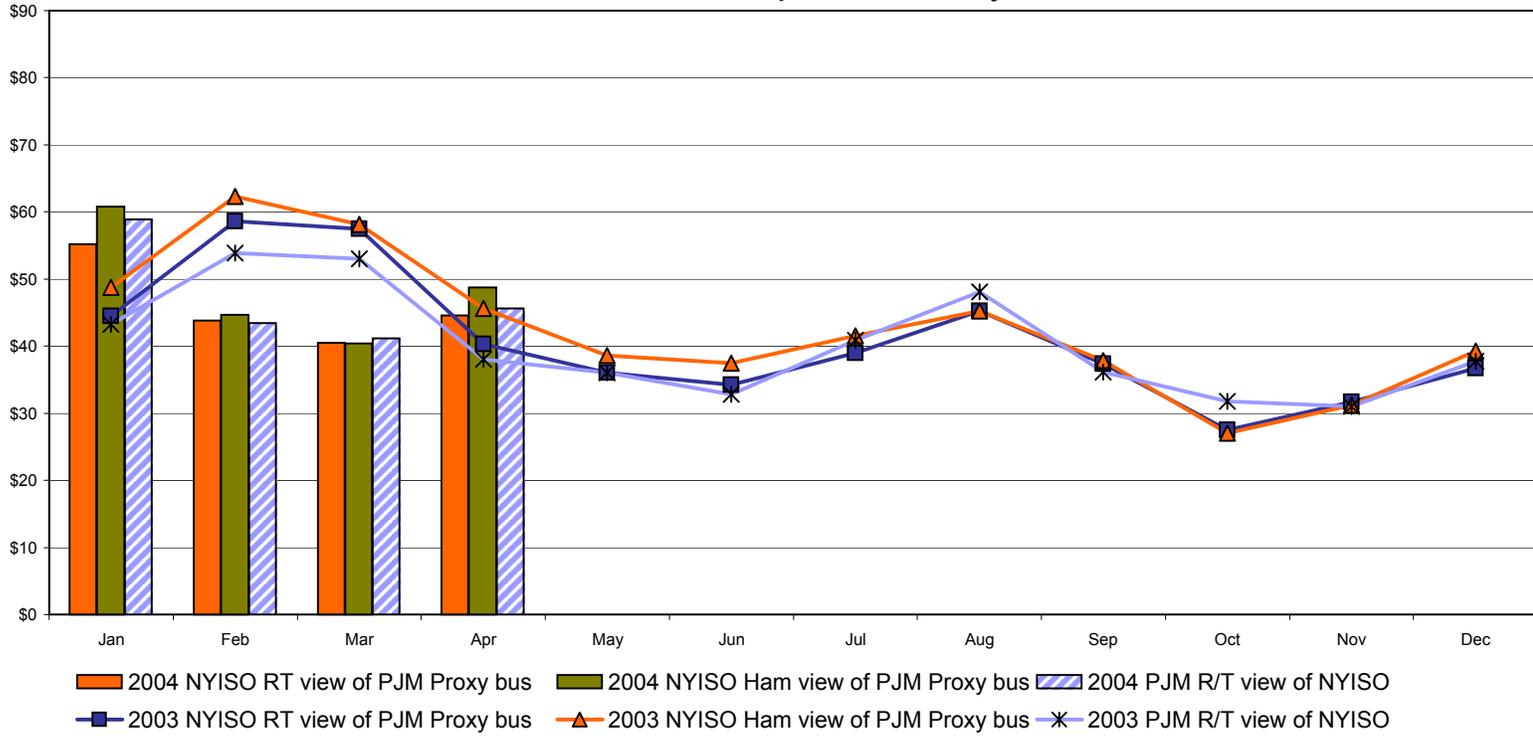
Note:  
 ISO-NE Forecast is an advisory posting @ 18:00 day before  
 \* Effective 3/1/2003 SMD implemented by ISO-NE. The DAM and R/T prices at the Roseton interface are now used.

# External Comparison PJM

## Day Ahead Market External Zone Comparison - PJM only \$/MWH

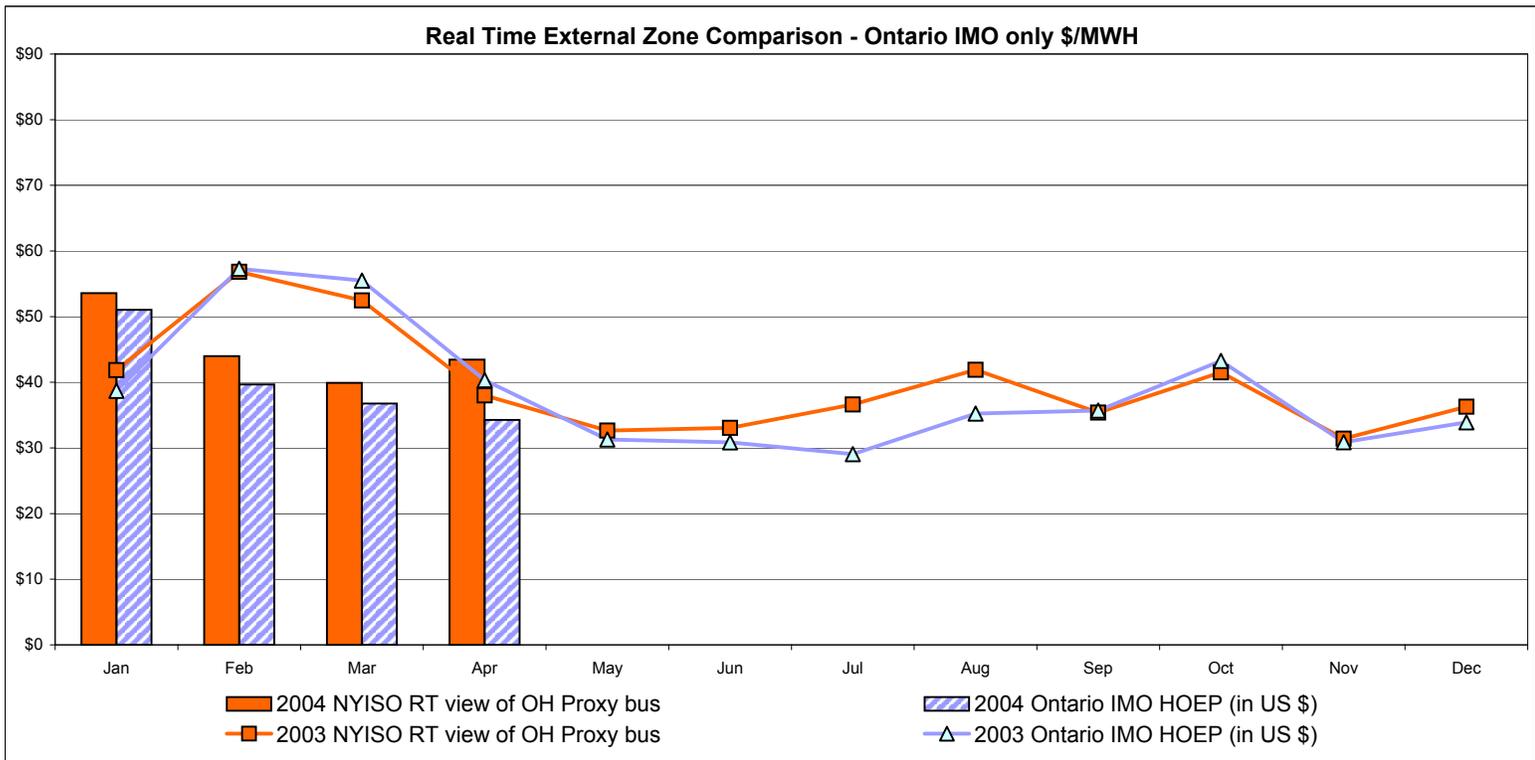
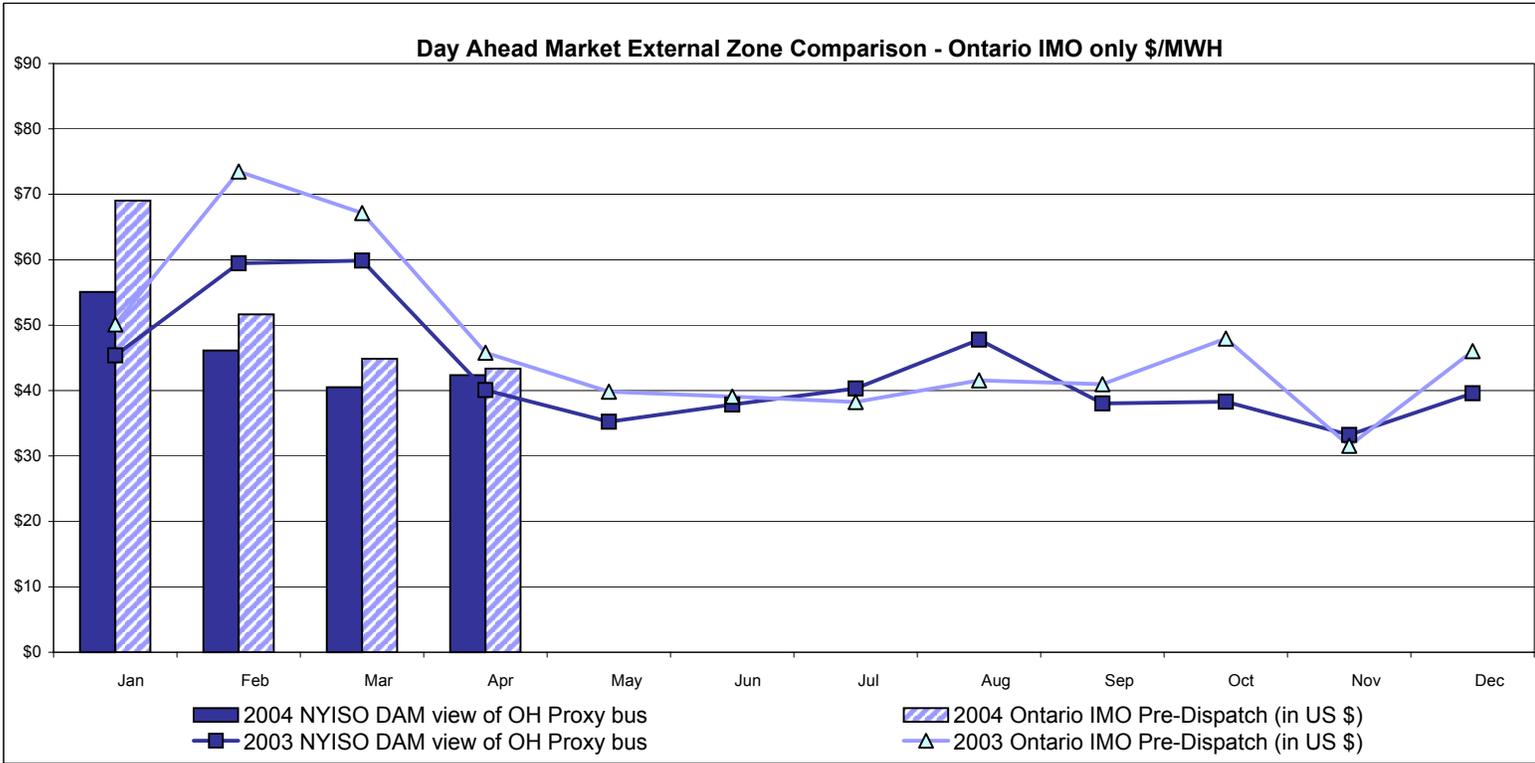


## Real Time External Zone Comparison - PJM only \$/MWH



Note:  
After 5/1/02 PJM lists only one interface as NYIS

# External Comparison Ontario IMO



Notes: Exchange factor used for April 2004 was .75 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

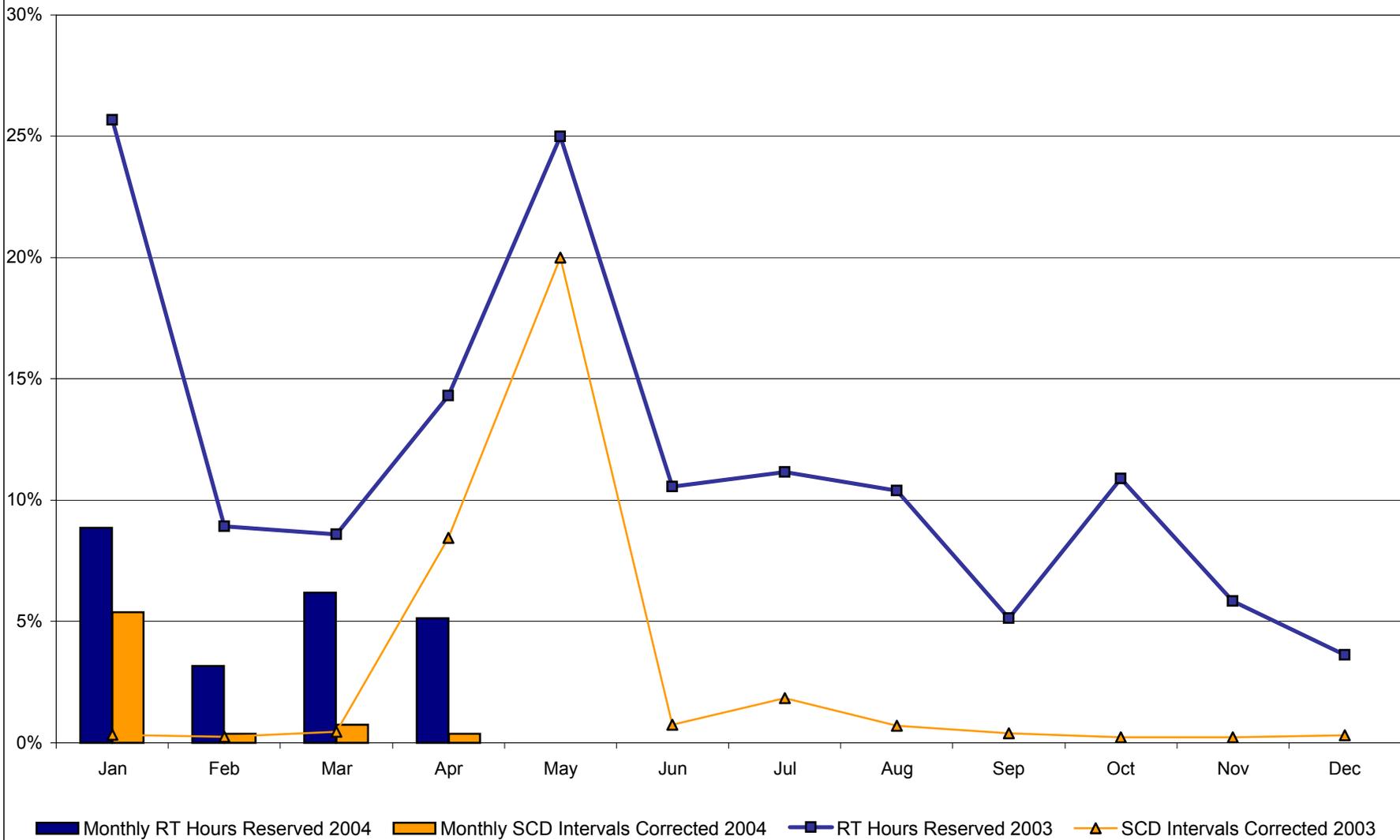
| <u>Interval Corrections</u>                    | January | February | March  | April  | May | June | July | August | September | October | November | December |
|--|---------|----------|--------|--------|-----|------|------|--------|-----------|---------|----------|----------|
| Number of Intervals corrected in the month     | 597     | 40       | 83     | 40     |     |      |      |        |           |         |          |          |
| Number of Intervals in the month               | 11,089  | 10,495   | 11,085 | 10,805 |     |      |      |        |           |         |          |          |
| Percentage of intervals corrected in the month | 5.38%   | 0.38%    | 0.75%  | 0.37%  |     |      |      |        |           |         |          |          |
| Number of Intervals corrected Year-to-date     | 597     | 637      | 720    | 760    |     |      |      |        |           |         |          |          |
| Number of Intervals Year-to-date               | 11,089  | 21,584   | 32,669 | 43,474 |     |      |      |        |           |         |          |          |
| Percentage of intervals corrected Year-to-date | 5.38%   | 2.95%    | 2.20%  | 1.75%  |     |      |      |        |           |         |          |          |
| <u>Hours Reserved</u>                          |         |          |        |        |     |      |      |        |           |         |          |          |
| Number of hours reserved in the month          | 66      | 22       | 46     | 37     |     |      |      |        |           |         |          |          |
| Number of hours in the month                   | 744     | 696      | 744    | 720    |     |      |      |        |           |         |          |          |
| Percentage of hours reserved in the month      | 8.87%   | 3.16%    | 6.18%  | 5.14%  |     |      |      |        |           |         |          |          |
| Number of hours reserved Year-to-date          | 66      | 88       | 134    | 171    |     |      |      |        |           |         |          |          |
| Number of hours Year-to-date                   | 744     | 1,440    | 2,184  | 2,904  |     |      |      |        |           |         |          |          |
| Percentage of hours reserved Year-to-date      | 8.87%   | 6.11%    | 6.14%  | 5.89%  |     |      |      |        |           |         |          |          |
| <u>Days Without Corrections</u>                |         |          |        |        |     |      |      |        |           |         |          |          |
| Days without price corrections in the month    | 14      | 20       | 11     | 9      |     |      |      |        |           |         |          |          |
| Days without price corrections Year-to-date    | 14      | 34       | 45     | 54     |     |      |      |        |           |         |          |          |

### NYISO Price Corrections 2003

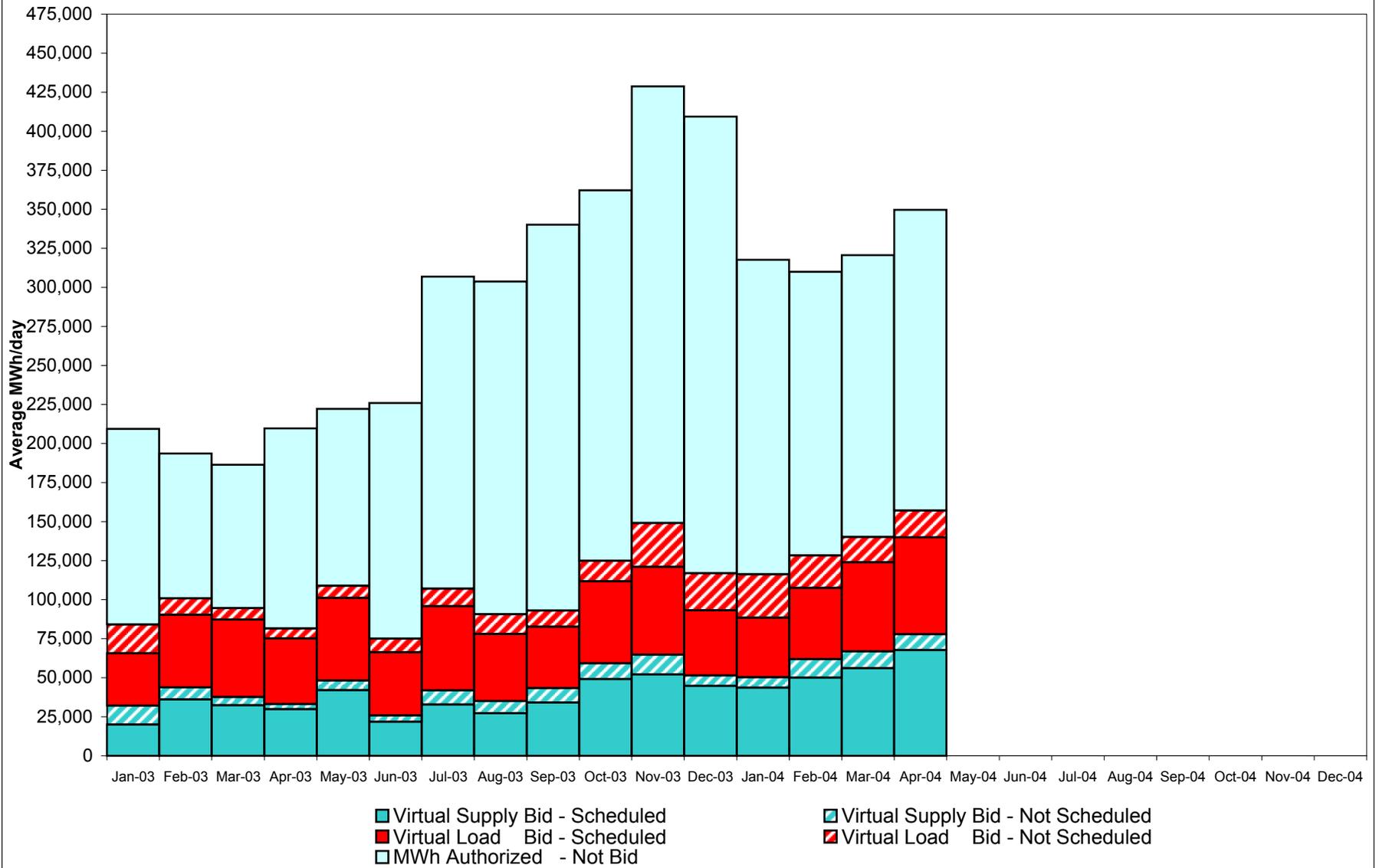
| <u>Interval Corrections</u>                    | January | February | March  | April  | May    | June   | July   | August | September | October | November | December |
|--|---------|----------|--------|--------|--------|--------|--------|--------|-----------|---------|----------|----------|
| Number 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%    |
| <u>Hours Reserved</u>                          |         |          |        |        |        |        |        |        |           |         |          |          |
| 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%   |
| <u>Days Without Corrections</u>                |         |          |        |        |        |        |        |        |           |         |          |          |
| 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

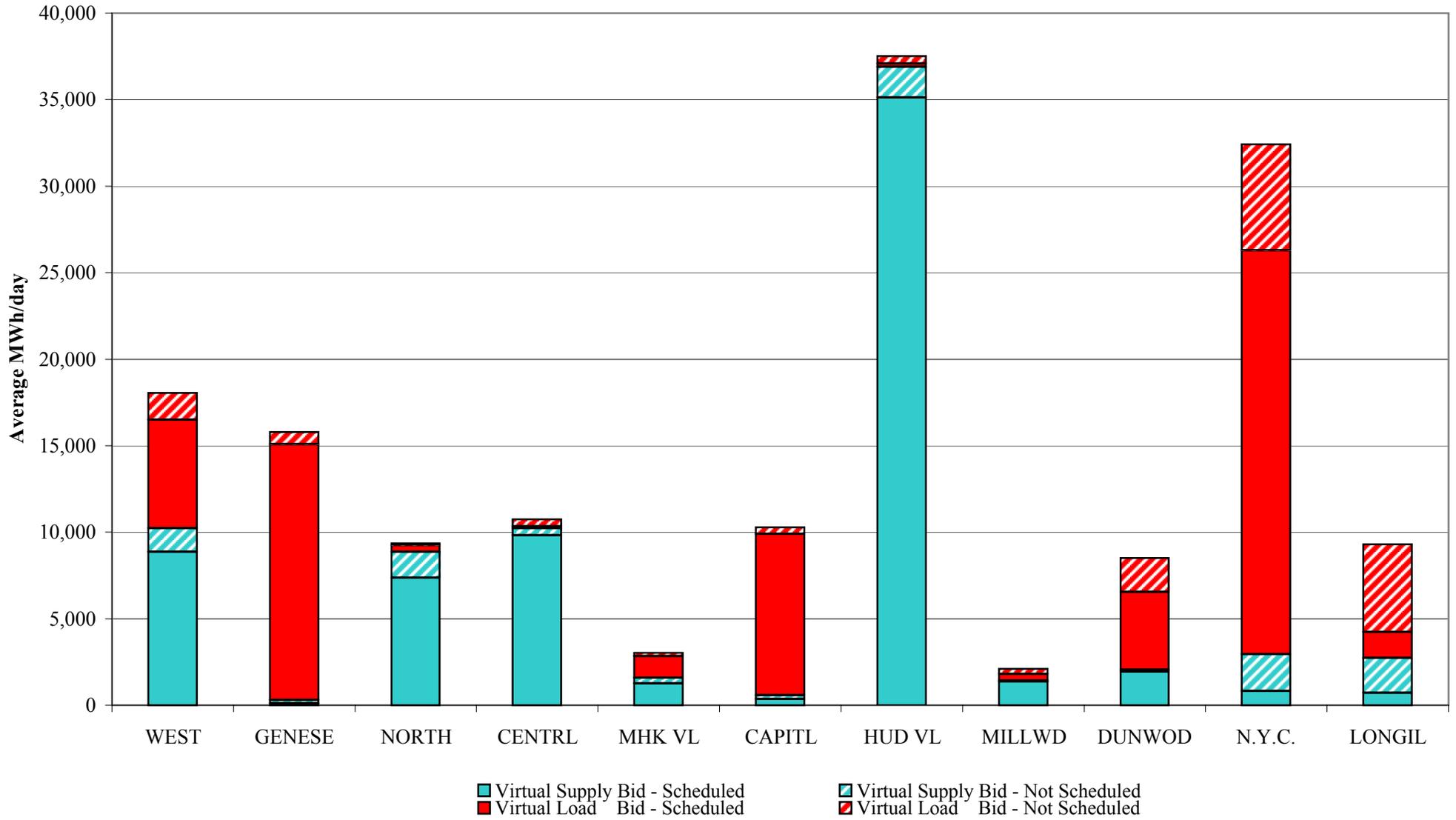
### Percentage of Real-Time Corrections



**NYISO Virtual Trading  
Average MWh per day**

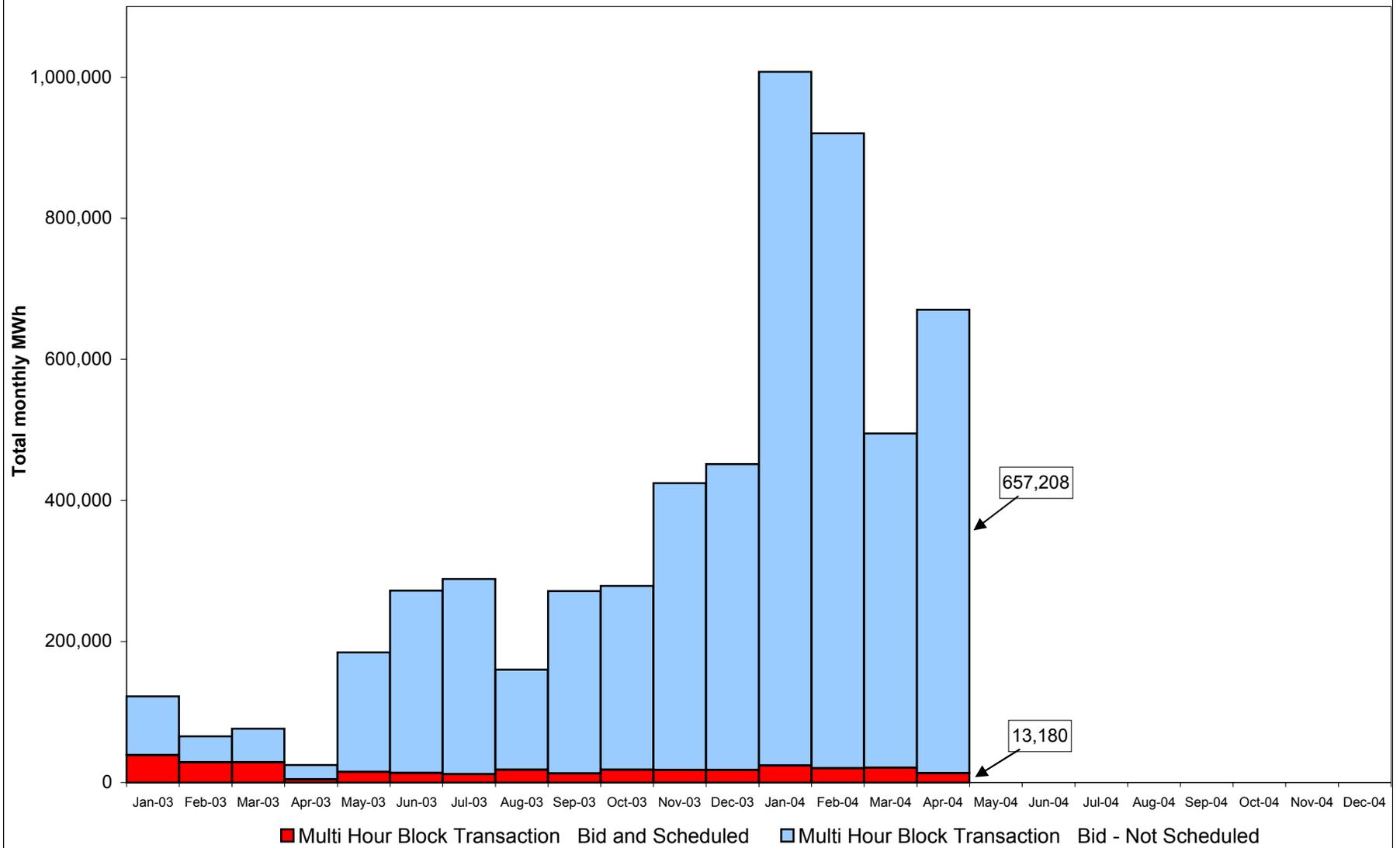


## Virtual Load and Supply Zonal Statistics April 2004

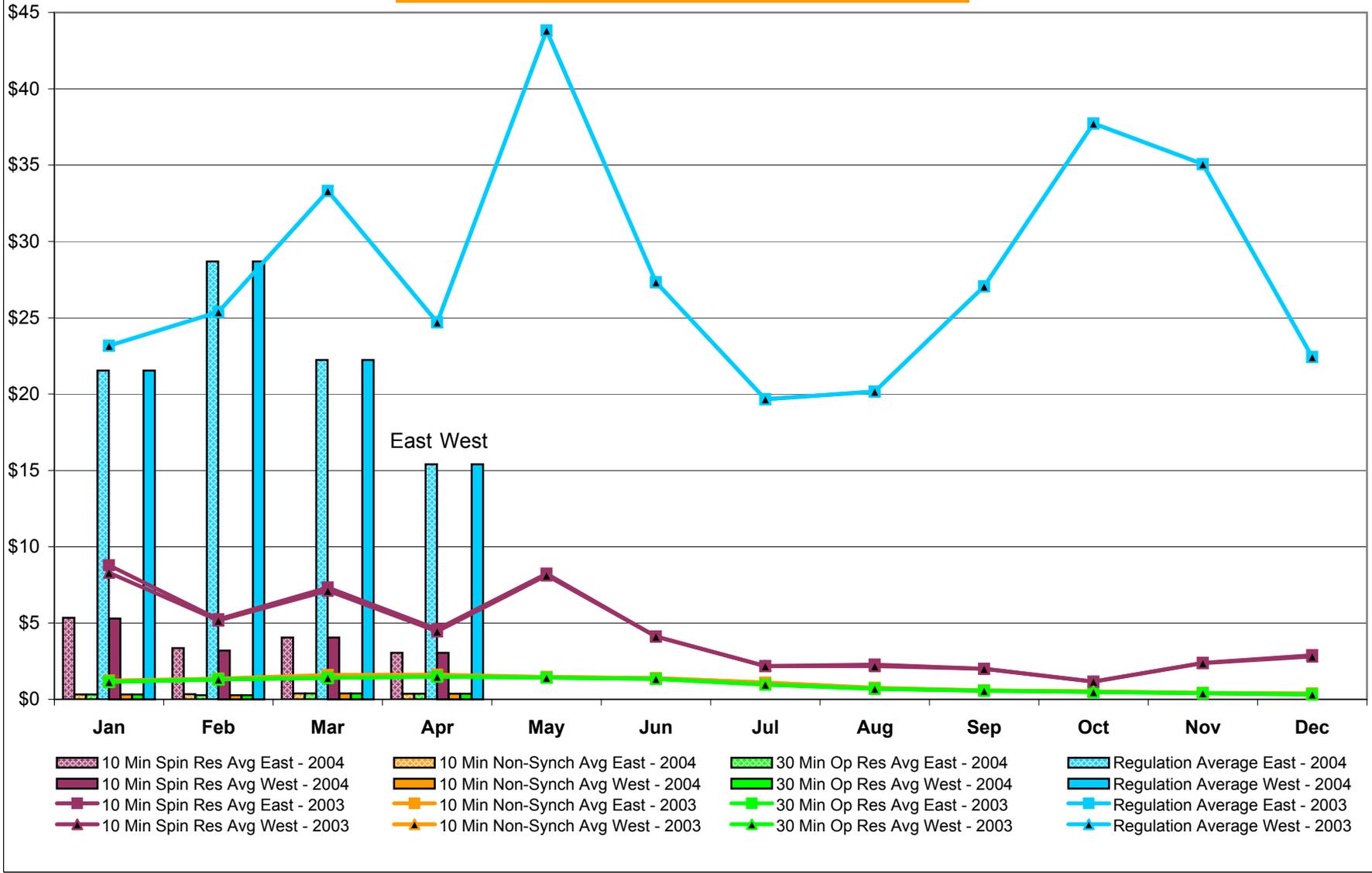


4-T

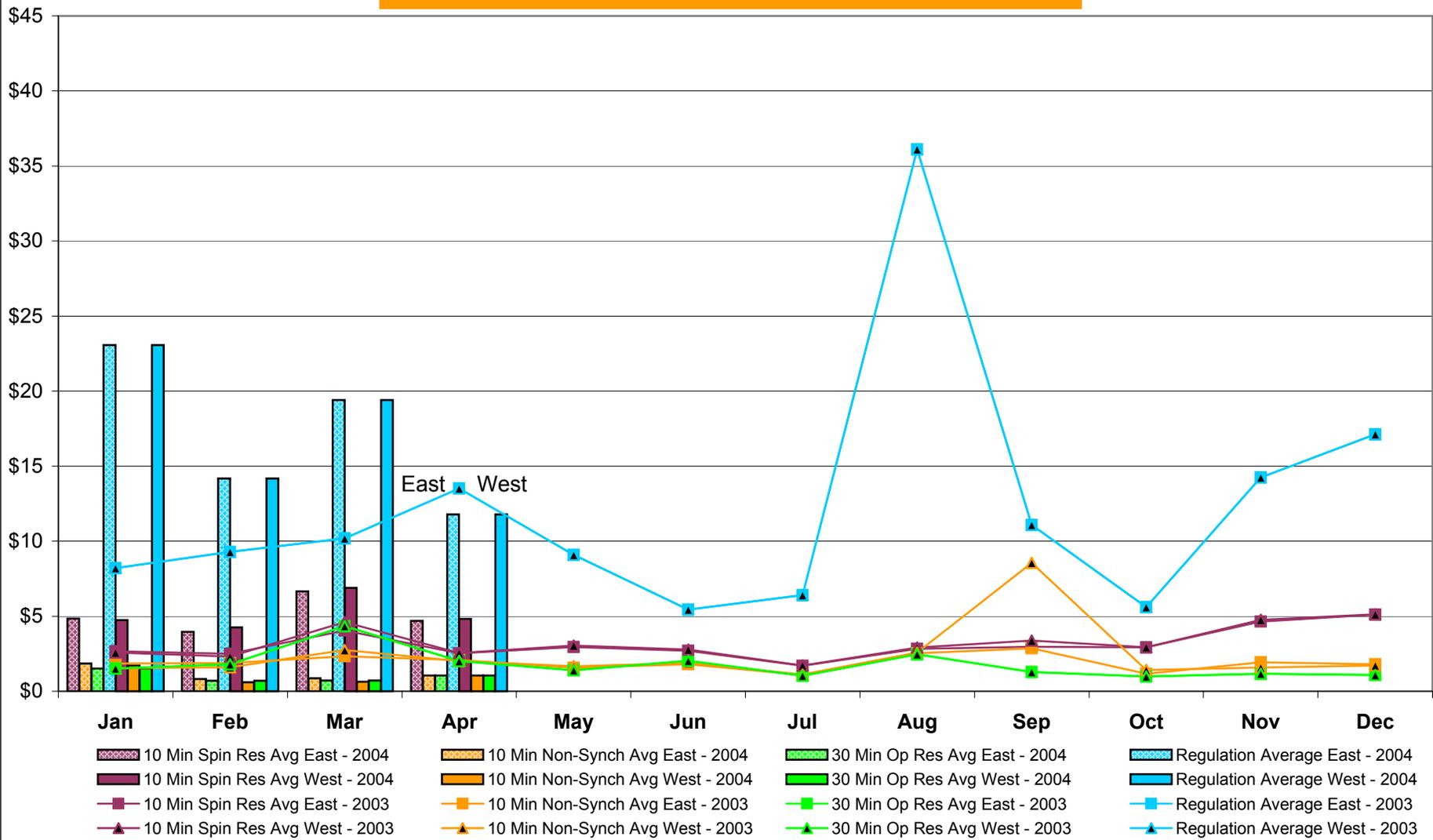
## NYISO Multi Hour Block Transactions Monthly Total MWh



**NYISO Monthly Average Ancillary Service Prices  
Day Ahead Market 2003 - 2004**



## NYISO Monthly Average Ancillary Service Prices BME \* 2003 - 2004



\* Commonly referred to as Hour Ahead Market (HAM)

## NYISO Markets Ancillary Services Statistics

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

### ANCILLARY SERVICES Unweighted Price (\$/MWH) 2004

#### Day Ahead Market

|                       |       |       |       |       |
|-----------------------|-------|-------|-------|-------|
| 10 Min Spin East      | 5.35  | 3.36  | 4.05  | 3.04  |
| 10 Min Spin West      | 5.29  | 3.20  | 4.05  | 3.04  |
| 10 Min Non Synch East | 0.33  | 0.33  | 0.39  | 0.38  |
| 10 Min Non Synch West | 0.32  | 0.27  | 0.39  | 0.38  |
| 30 Min East           | 0.32  | 0.27  | 0.39  | 0.38  |
| 30 Min West           | 0.32  | 0.27  | 0.39  | 0.38  |
| Regulation East       | 21.54 | 28.69 | 22.23 | 15.41 |
| Regulation West       | 21.54 | 28.69 | 22.23 | 15.41 |

#### BME\* Market

|                       |       |       |       |       |
|-----------------------|-------|-------|-------|-------|
| 10 Min Spin East      | 4.84  | 3.96  | 6.65  | 4.69  |
| 10 Min Spin West      | 4.75  | 4.27  | 6.89  | 4.82  |
| 10 Min Non Synch East | 1.85  | 0.81  | 0.87  | 1.05  |
| 10 Min Non Synch West | 1.71  | 0.60  | 0.64  | 1.06  |
| 30 Min East           | 1.51  | 0.70  | 0.72  | 1.06  |
| 30 Min West           | 1.51  | 0.70  | 0.72  | 1.06  |
| Regulation East       | 23.07 | 14.18 | 19.41 | 11.78 |
| Regulation West       | 23.07 | 14.18 | 19.41 | 11.78 |

### ANCILLARY SERVICES Unweighted Price (\$/MWH) 2003

#### 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 |

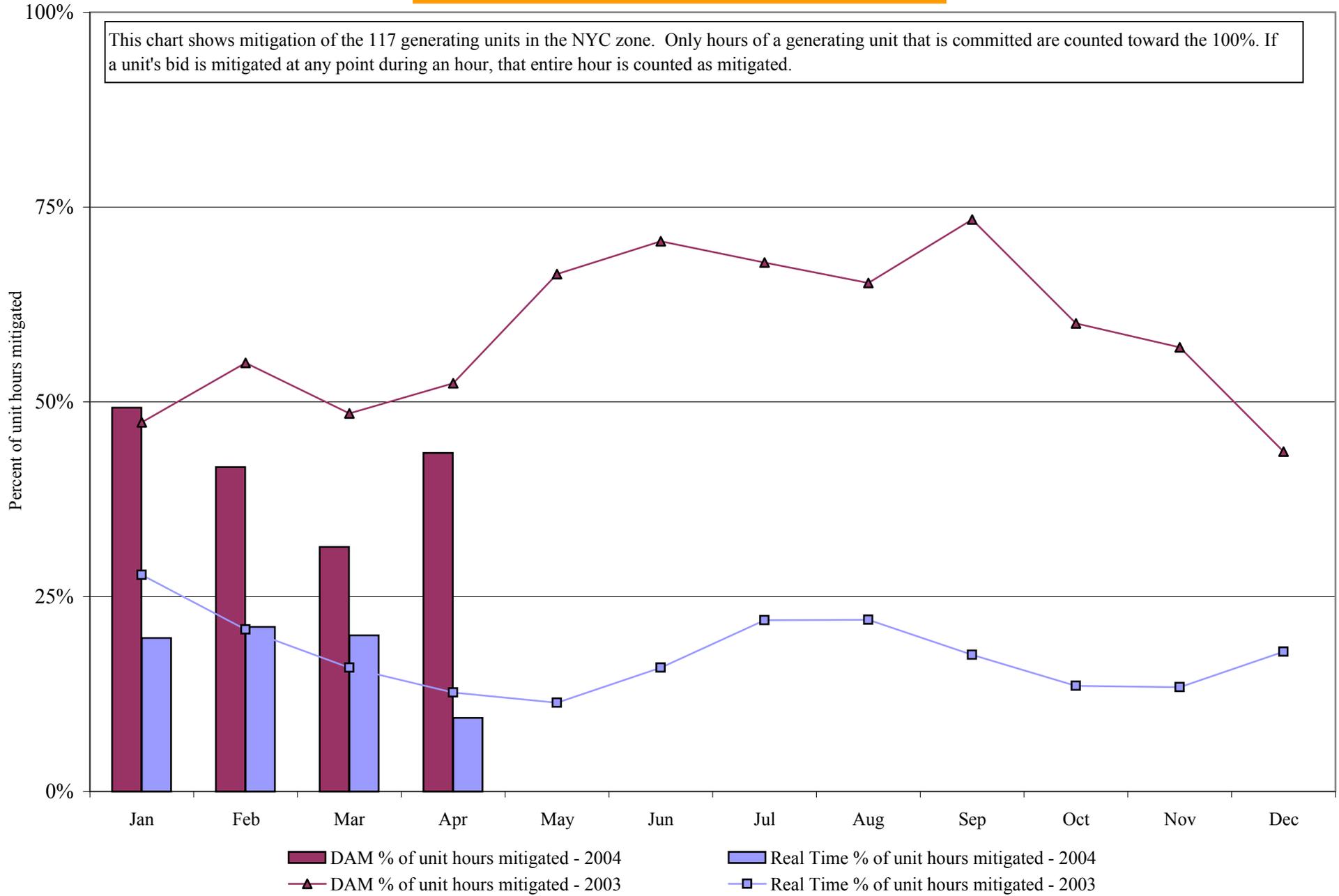
#### BME\* Market

|                       |      |      |       |       |      |      |      |       |       |      |       |       |
|-----------------------|------|------|-------|-------|------|------|------|-------|-------|------|-------|-------|
| 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 |

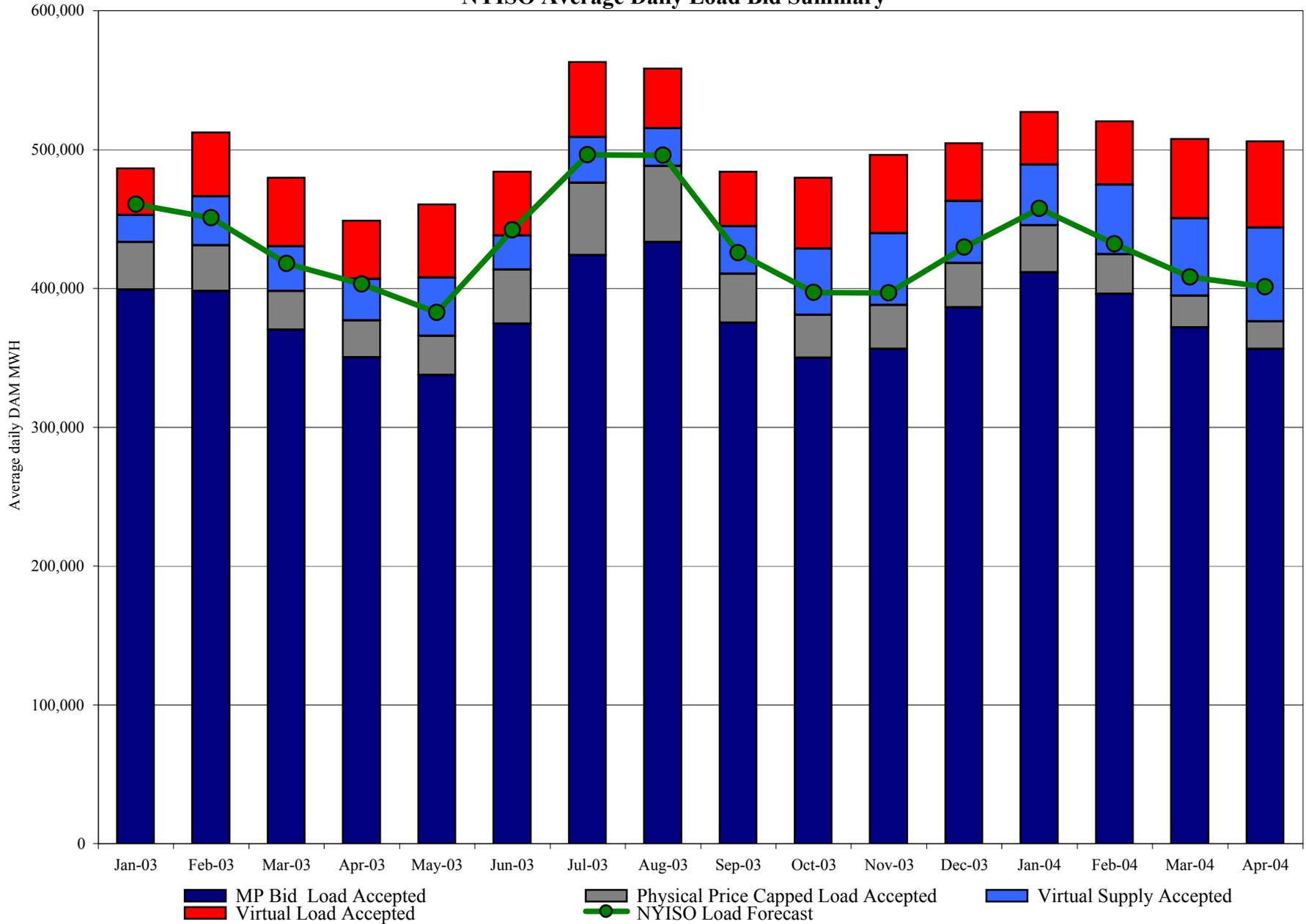
\* Commonly Referred to as Hour Ahead Market (HAM)

## NYISO In City Mitigation (NYC Zone) 2003-2004

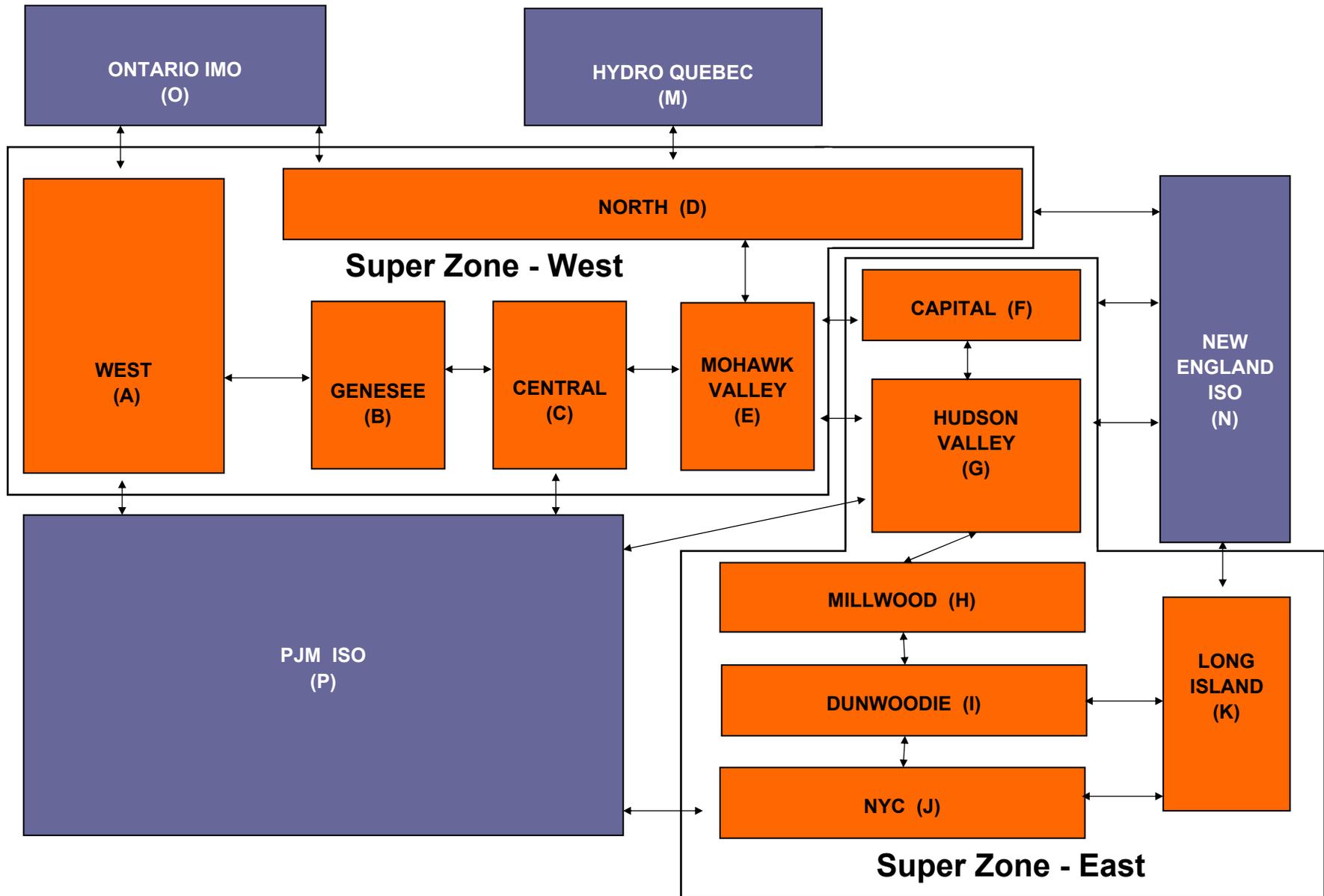
### Percentage of committed unit-hours mitigated



### NYISO Average Daily Load Bid Summary



# NYISO LBMP ZONES



**RELIABILITY GATEWAY GOAL**

|   |   |    |   |
|---|---|----|---|
| 1. Maintain service to NYCA load.<br>No interruption of load because of improper implementation of NYISO operating procedures by the NYISO. |  | -- | No loss of load or deliberate load shedding triggering a NERC reportable event (>300MW for >15 minutes) |
|---|---|----|---|

**MARKET GATEWAY GOAL**

|   |   |    |  |
|---|---|----|--|
| 2. Successfully post DAM schedules/forward contracts. |  | -- | DAM schedules/forward contracts are posted >=99.7% of the time during 2004 |
|---|---|----|--|

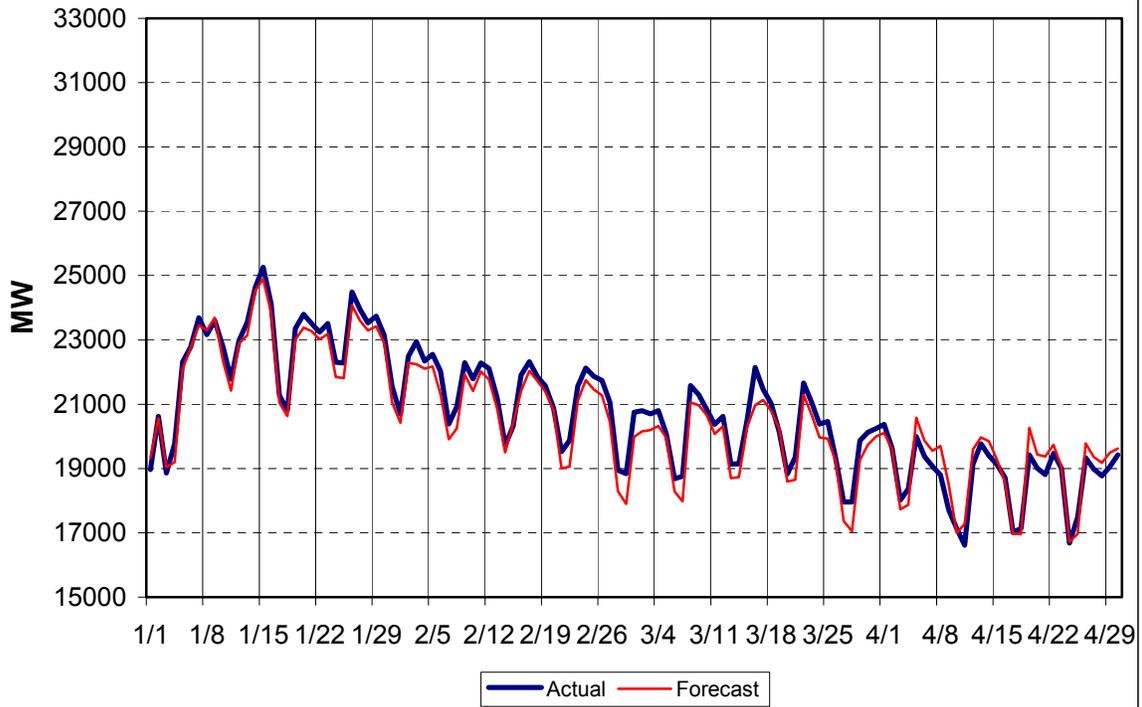
**Goal Values**

| Goal Description  | YTD Data  | Threshold Payout-50%                                  | Target Payout-100%   | Superior Payout-150%   |
|---|---|---|--|--|
| 3. Comprehensive Electric System Planning<br>a. Complete Phase I Study<br>b. Complete FERC filing of Phase II   | <br>  | --<br>--  | 7/1/04<br>12/1/04  | 6/1/04<br>11/1/04  |
| 4. Comply with NERC/NAERO Operating Standards<br>a. CPS-2:<br>b. Disturbance Control Standards (DCS):   | <br>  | 4/4 months<br>April – 96.34<br>4/4 months             | 10 of 12 months<br>10 of 12 months   | 12 of 12 months<br>11 of 12 months   |
| 5.a. Achieve timely posting of DAM schedules and forward contracts. Post by 11 a.m.:<br>b. i) MIS availability >= 9x.x% as planned, based on current availability metrics<br>ii) During the year, an individual occurrence of unplanned (i.e., <48 hours' notice) service interruptions will not be greater than 4 hours; there won't be more than: | <br><br>    | 121/121 postings<br>3 occurrences                     | 360/366 postings<br>10 of 12 months<br>3 occurrences of 1-4 hours each             | 363/366 postings<br>11 of 12 months<br>2 occurrences of 1-4 hours each         |
| 6. Improve the certainty and accuracy of Real-Time prices:<br>a. Hours reserved:<br>b. Intervals corrected:   | <br>  | Through April – 5.85%<br>1.75%                        | <= 12%<br><= 0.6%  | <= 10%<br><= 0.5%  |
| 7. Improve the billing and true-up process:<br>a. Posting of all invoices within 5 business-days of the month according to invoice schedule<br>b. Metering improvements<br>c. Turnaround of Billing Defects (from NYISO notification)   | <br><br> | 3/3 months<br>--<br>27 B-Ds                           | 10 of 12 months<br>Finalize a formal meter quality and tracking program<br>40 B-Ds | 11 of 12 months<br>Implement program with Meter Authority agreement<br>35 B-Ds |
| 8. Improve Customer Satisfaction with NYISO services as determined via surveying three times annually (average baseline score: 6.397)   |    | April survey: 6.747                                   | Score of >= 6.525  | Score of >= 6.653  |
| 9. Project execution (weighted 20%)<br>a. 1) Project Management – Scheduling<br>2) Project Management - Costs<br>b. SMD 2.0   | <br><br> | 2 projects qualified – 1 comp (sch);<br>1 comp (cost) | 3 misses<br>3 misses<br>11/16  | 2 misses<br>2 misses<br>10/12**  |

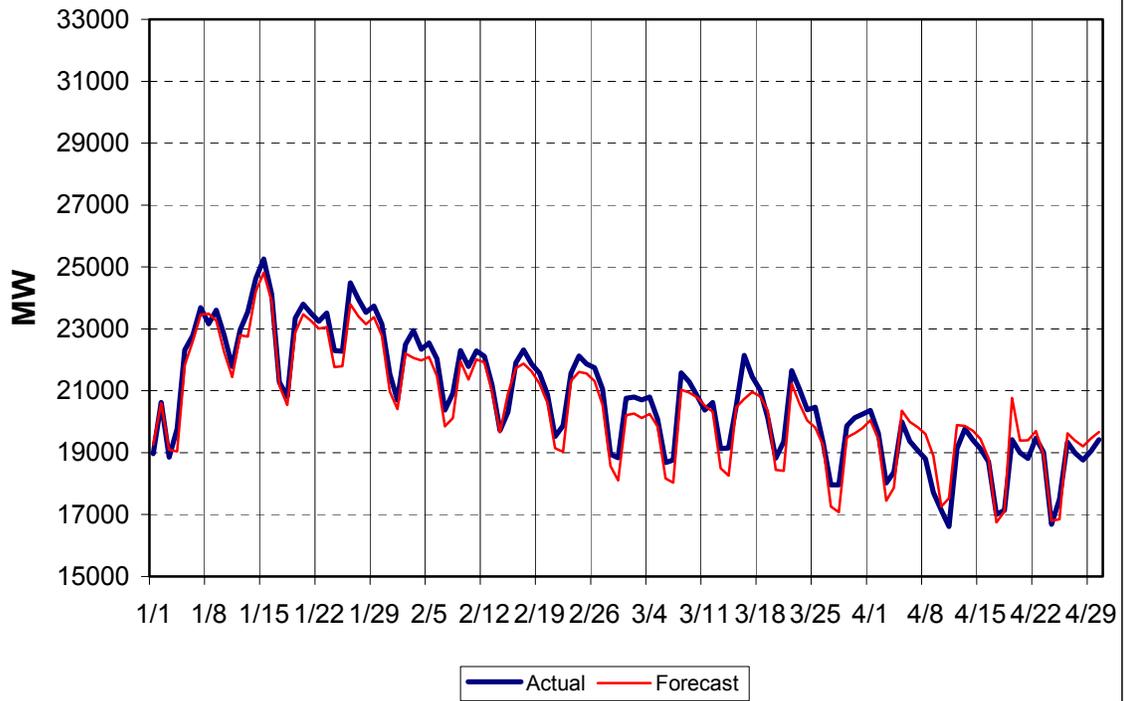
\* where there is a  potential payouts have not been included or calculated

\*\* internal schedule driving to 10/5 deployment

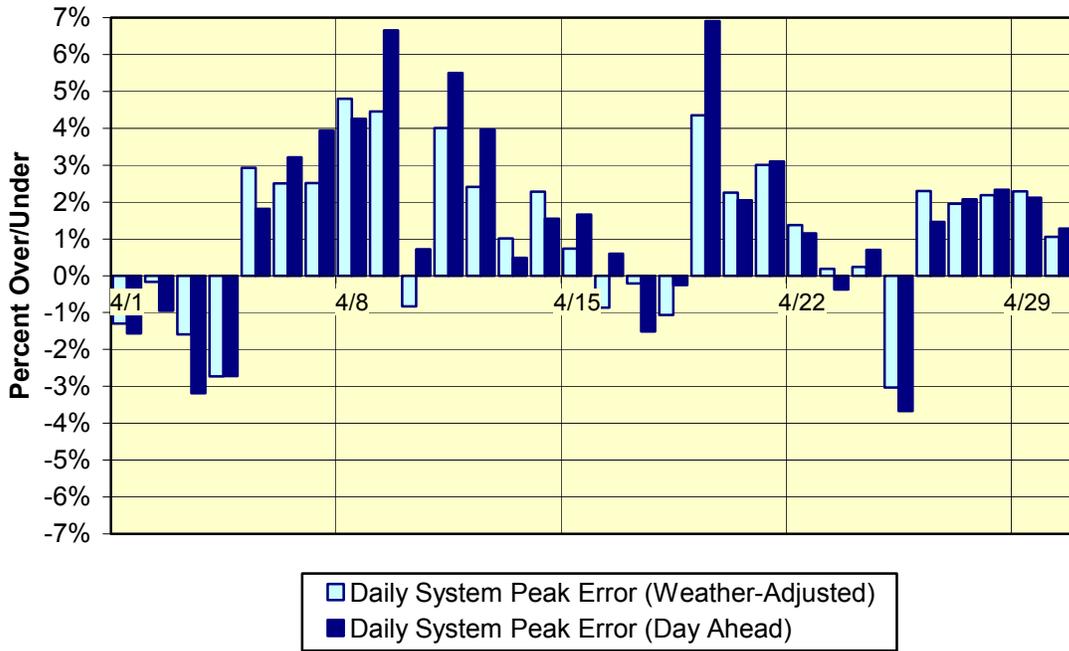
### NYISO Daily Peak Load Actual vs. Weather-Adjusted Forecast



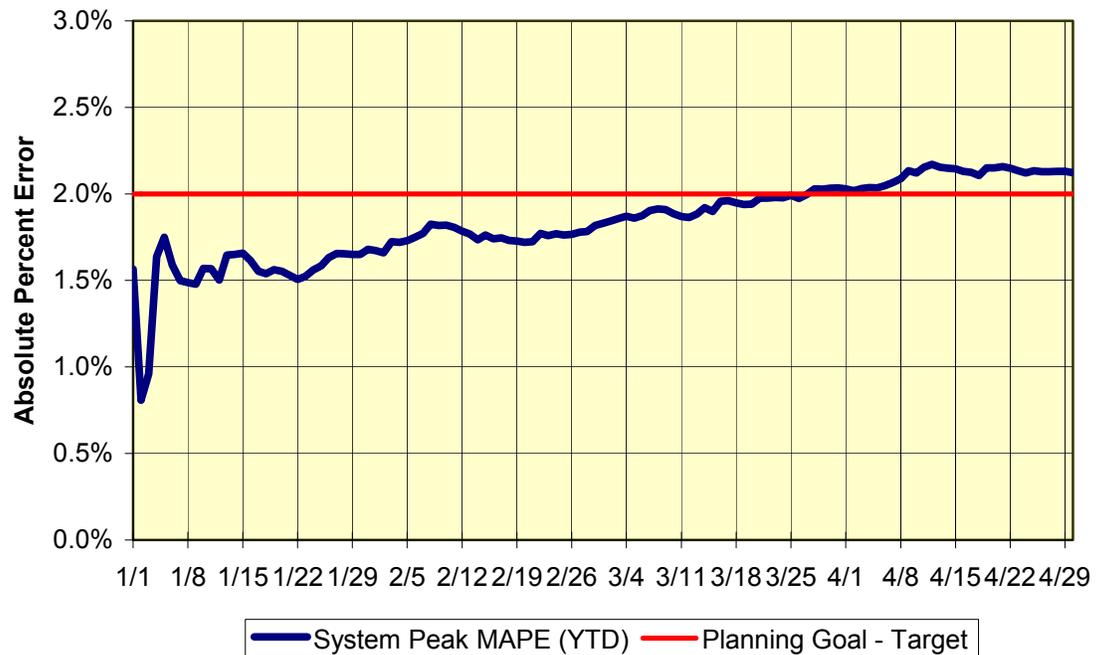
### NYISO Daily Peak Load Actual vs. Forecast



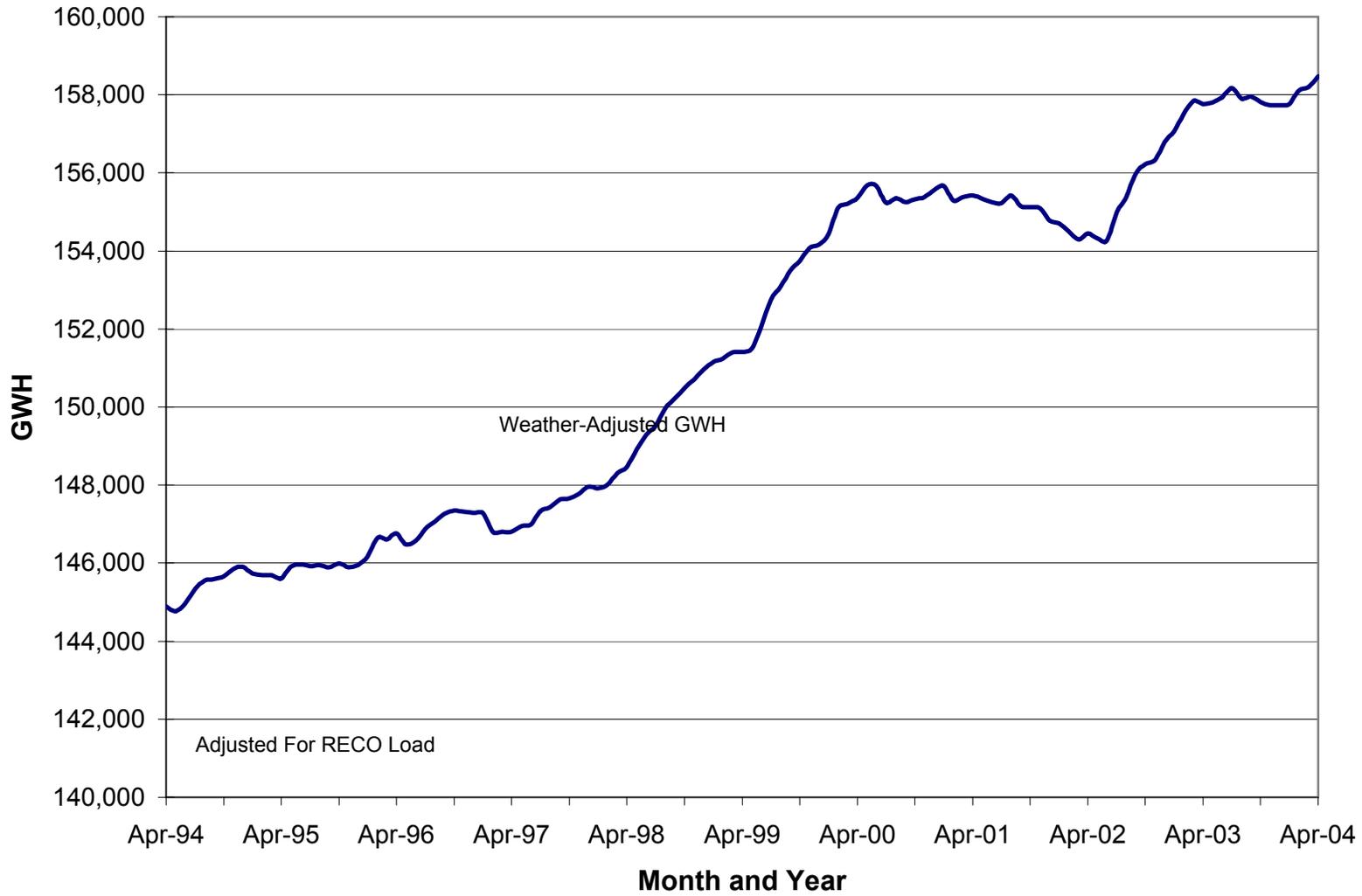
### Day-Ahead Forecast Daily Forecast Errors of System Peak April, 2004



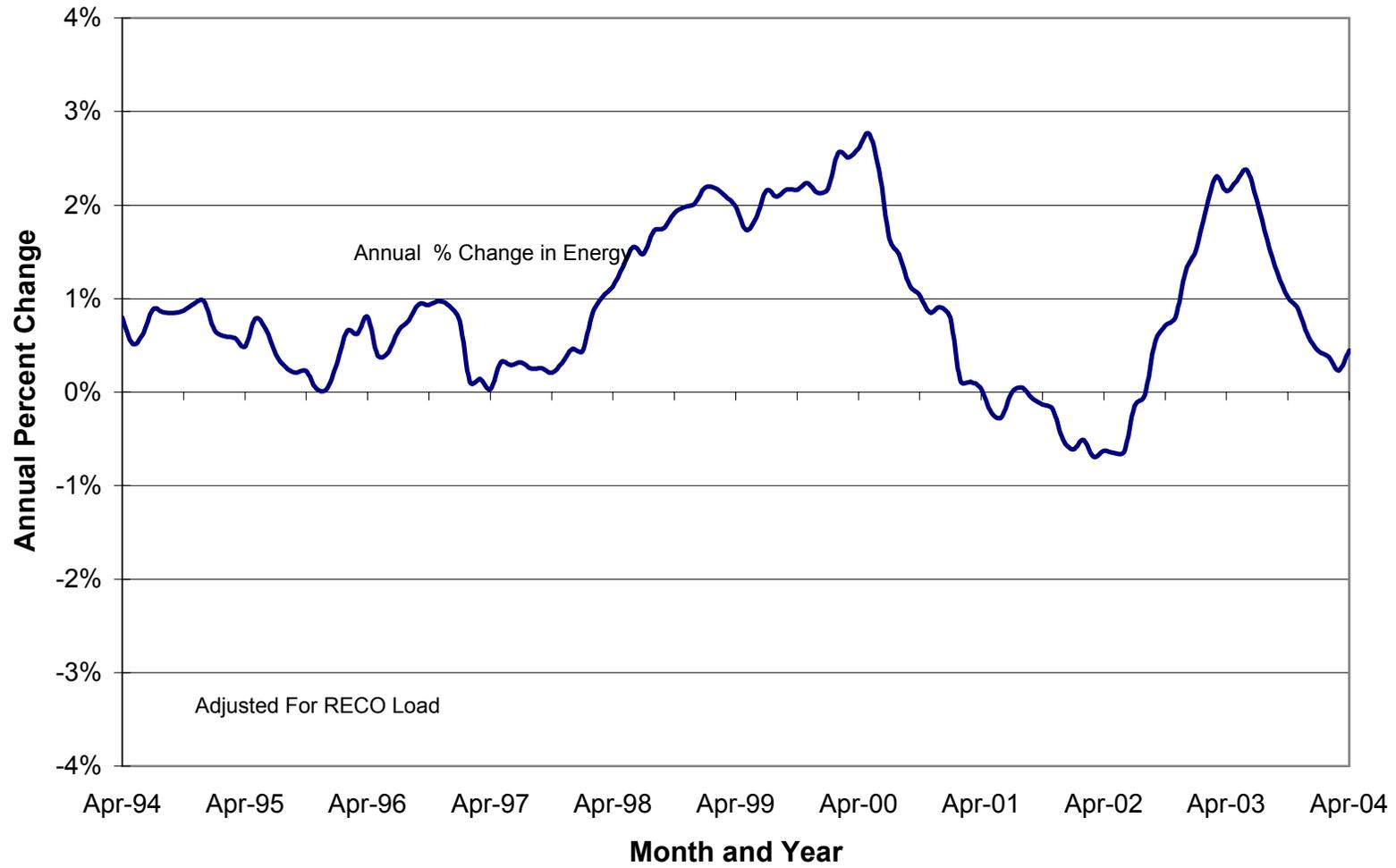
### Day-Ahead Forecast Cumulative Performance - Daily System Peak 2004 Year-to-Date



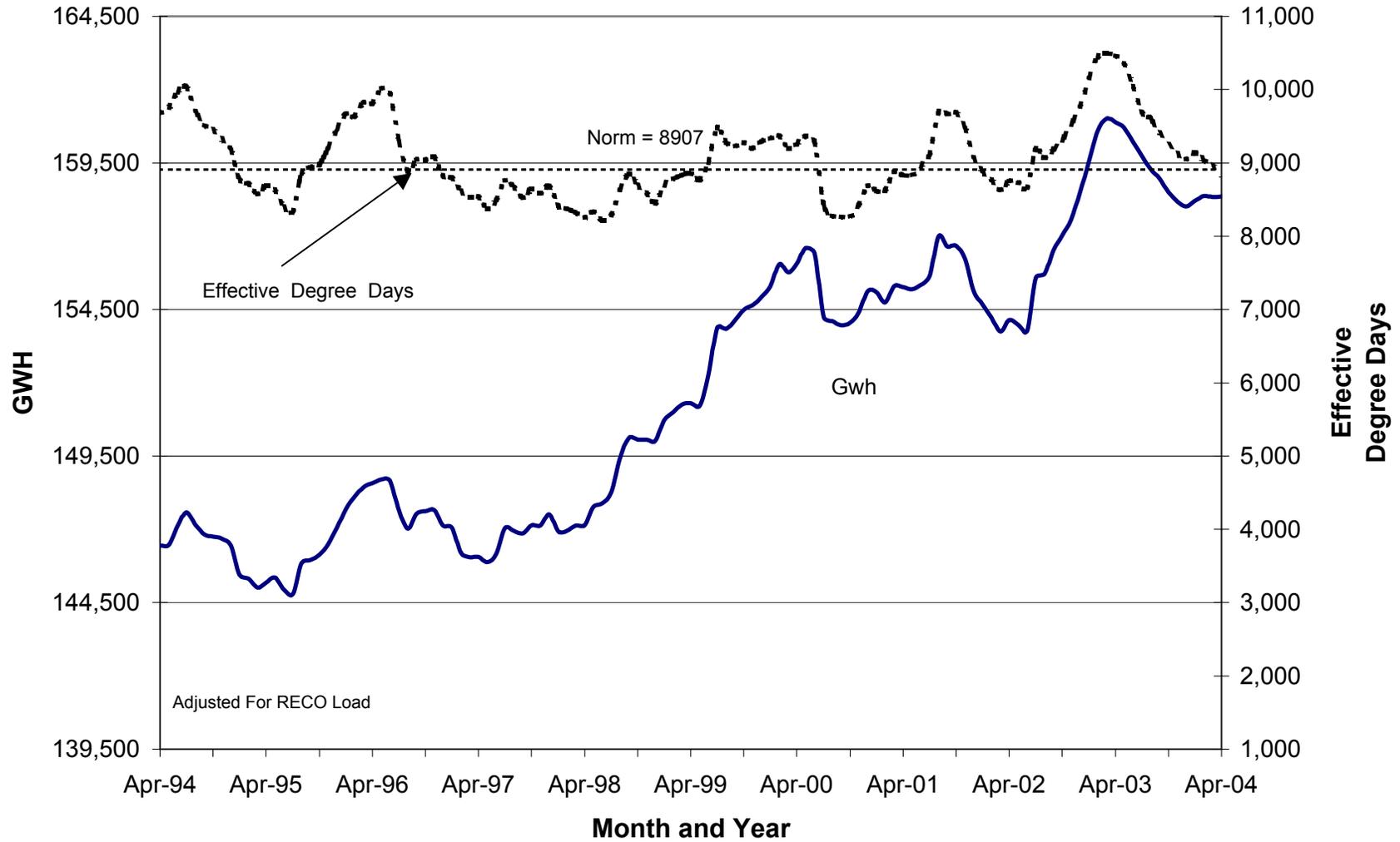
**Plot Of 12 Month Moving Total Of NYCA Weather Adjusted Energy Sendout**



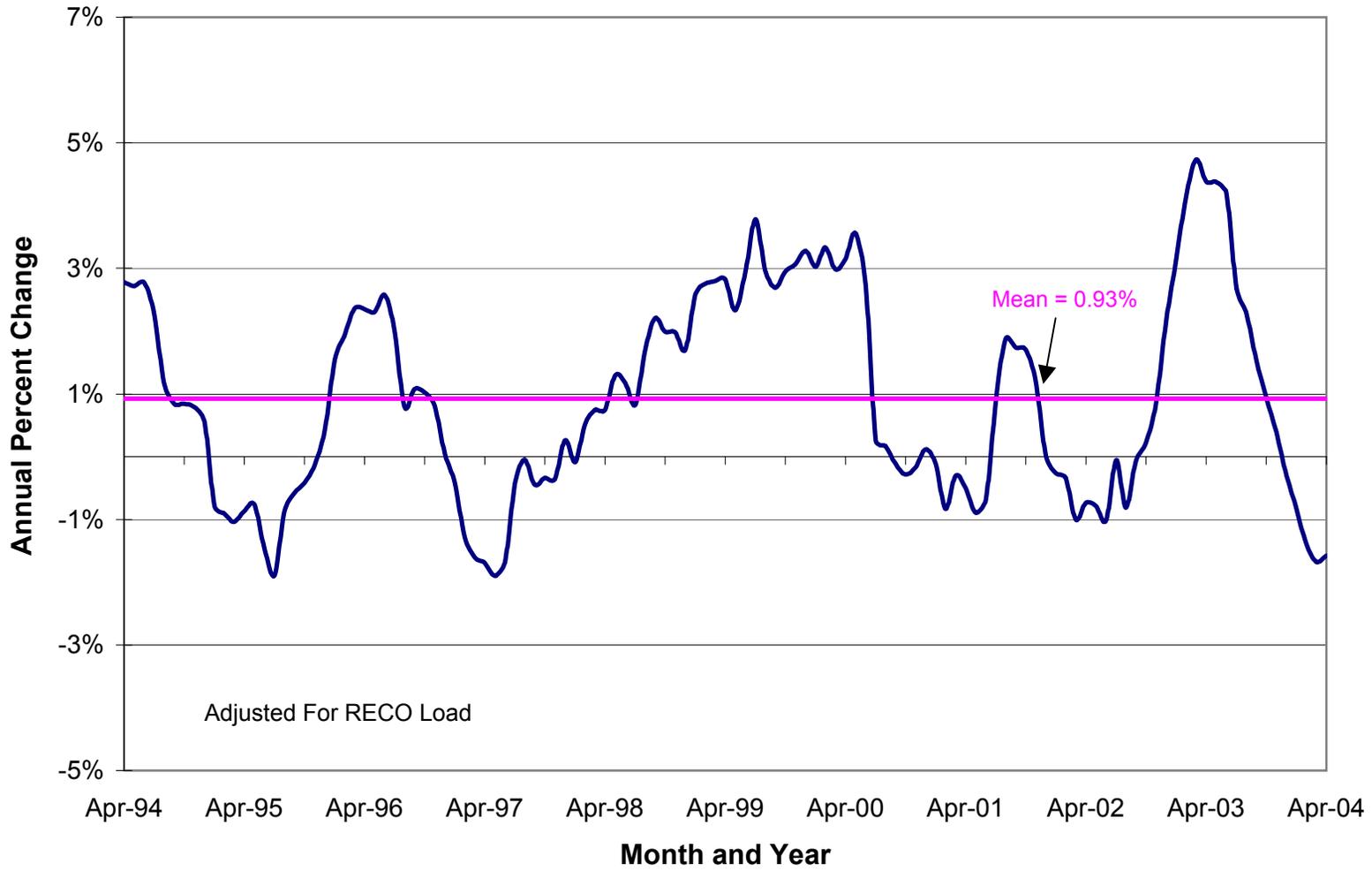
### Plot Of Weather Adjusted 12 Month Moving Total Energy Sendout Annual Percent Change



**Plot Of 12 Month Moving Total Of NYCA Energy Sendout  
And Effective Degree Days For 10 Years**



**Plot Of 12 Month Moving Total Energy Sendout  
Annual Percent Change For 10 Years**



# NYISO Regulatory Filings April 2004

- April 1, 2004 NYISO filing of responses to FERC data requests regarding NYISO's real time scheduling software (ER04-230-004)
- April 5, 2004 NYISO and NYTO joint filing of a request for clarification, waiver, or in the alternative, rehearing of Order No. 2003-A concerning standardization of generation interconnection agreements and procedures (RM02-1-001)
- April 8, 2004 NYISO and NYTOs joint filing of motion to supplement their January 20, 2004 compliance filing in response to Order 2003-A regarding the standard generator interconnection procedures (ER04-449-001)
- April 14, 2004 Northeast ISOs posting of their quarterly seams reduction progress report
- April 15, 2004 NYISO filing of a motion for clarification regarding FERC's June 23, 2003, scarcity pricing order (ER03-766-003)
- April 20, 2004 NYISO filing of a motion to reject, request for leave to answer, and an answer regarding a third party protest of its RTS compliance filing (ER04-230-003)
- April 20, 2004 Third party filing of a motion to intervene regarding the NYISO's tariff filing to modify the pricing rules at noncompetitive external proxy generator buses (ER04-696-000)
- April 20, 2004 NYPSC answer from Con Edison to take official notice of the final Report of the US-Canada Power System Outage Task Force (EL02-23-000)
- April 25, 2004 NYISO filing of a motion to intervene in a NYPSC proceeding regarding provider of last resort responsibilities; the role of utilities in competitive energy markets; and fostering the development of retail competitive opportunities (Case 00-M-0504)
- April 26, 2004 NYISO and NYTOs joint compliance filing of revised standard interconnection procedures and a standard interconnection agreement (ER04-449-002)
- April 26, 2004 NYISO compliance filing to amend Attachment H of its OATT regarding wholesale TSC rates for New York Electric & Gas (EL04-56-001)
- April 29, 2004 NYISO filing of its FERC Form 582 regarding the total megawatt-hours of transmission service for calendar year 2003 (RM87-3-000)
- April 30, 2004 Third party filing of a motion to intervene and comment in support of NYISO's filing of a request to extend the scarcity pricing rules (ER03-766-003)
- April 30, 2004 NYISO section 205 filing of interim scheduling procedures for external transactions at the Shoreham proxy generator bus (ER04-791-000)
- April 30, 2004 NYISO filing of its Electric Quarterly Report for the first quarter of 2004 (RM01-8-000)

## **FERC ORDERS – APRIL 2004**

- April 5, 2004 FERC tolling order granting rehearing for further consideration regarding NYISO's real time scheduling software (ER04-230-002)
- April 12, 2004 FERC tolling order granting rehearing for further consideration regarding quarterly financial reporting to the annual reports (RM03-8-001)
- April 13, 2004 FERC letter order accepting the NYISO and Niagara Mohawk refund calculation data compliance filings and directing a refund payment (ER97-1523-080)
- April 14, 2004 FERC order announcing an initiation of rulemaking proceeding on market-based rates and technical conferences (RM04-7-000)
- April 16, 2004 FERC order granting and denying in part and providing clarification of Order No. 2004-A regarding the standards of conducts for gas pipelines and electric utility providers (RM01-10-001)
- April 22, 2004 FERC letter order accepting NYISO compliance filing and modifications to reduce the magnitude of congestion rent shortfalls (ER04-615-000)

## **NYISO Management Committee Meeting**

April 19, 2004

*Consolidated Edison, New York, NY*

### **MOTIONS FROM THE MEETING**

**Motion #1:**

Motion to approve the Minutes from the March 2, 2004 MC meeting.

**(Motion passed unanimously by show of hands)**

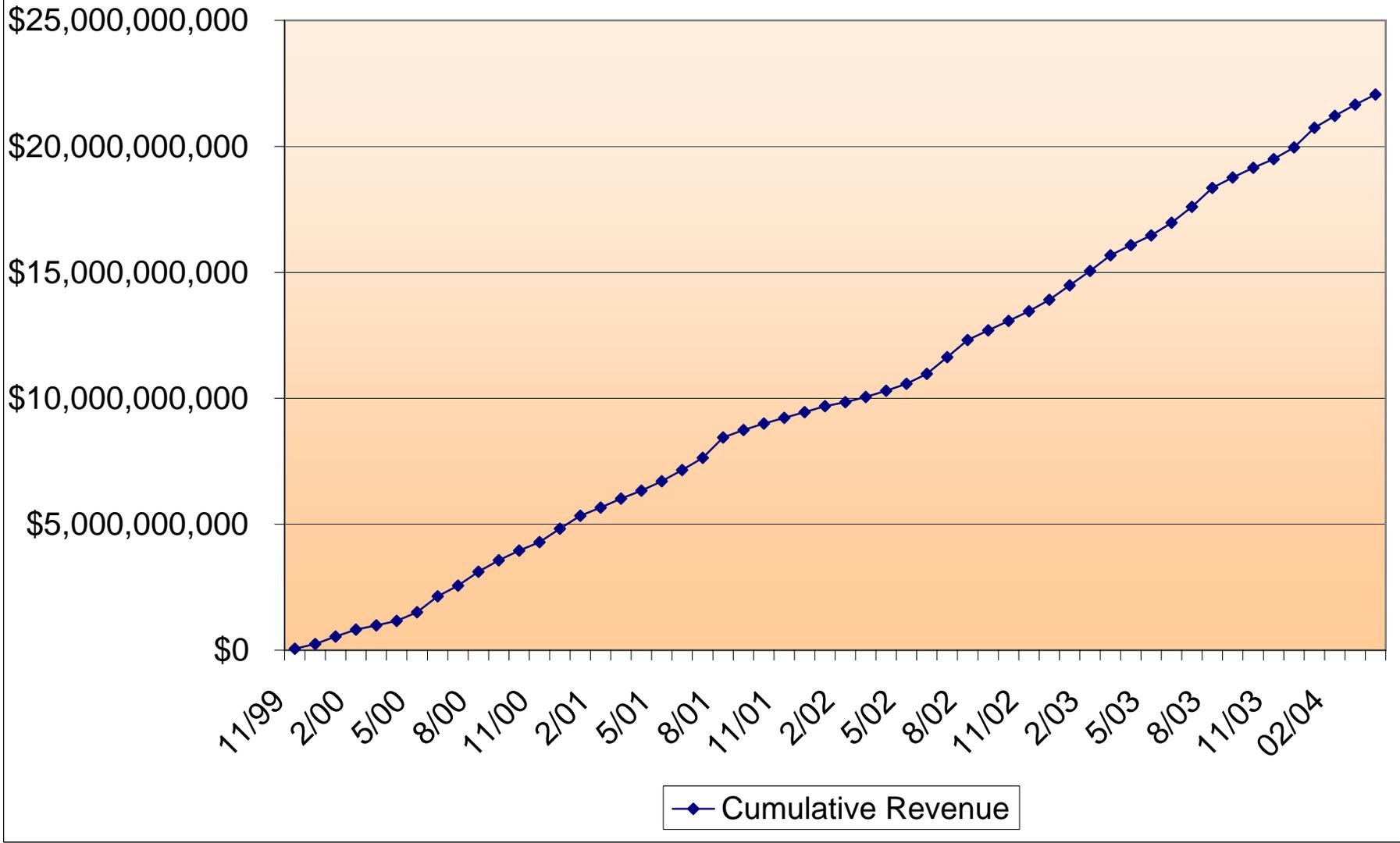


## 2004 BUDGET VS. ACTUAL VARIANCES

(dollar amounts in thousands)

|   | <u>YTD through April 2004</u> |                  |                   |               |
|---|-------------------------------|------------------|-------------------|---------------|
|   | <u>Budget</u>                 | <u>Actuals</u>   | <u>\$ Var.</u>    | <u>% Var.</u> |
| Capital Assets  | \$ 6,052                      | \$ 2,454         | \$ (3,598)        | -59%          |
| Salaries & Benefits                                     | 14,612                        | 13,633           | (979)             | -7%           |
| Consultants   | 8,389                         | 7,309            | (1,080)           | -13%          |
| Legal   | 2,000                         | 2,018            | 18                | 1%            |
| Building Services                                       | 1,171                         | 1,096            | (75)              | -6%           |
| Computer Services                                       | 8,517                         | 13,308           | 4,791             | 56%           |
| Insurance   | 2,571                         | 2,146            | (425)             | -17%          |
| Telecommunications                                      | 958                           | 1,364            | 406               | 42%           |
| Board of Directors                                      | 308                           | 254              | (54)              | -18%          |
| Meetings, Travel, Training                              | 967                           | 753              | (214)             | -22%          |
| NPCC Fees   | 508                           | 565              | 57                | 11%           |
| FERC Fees   | 2,667                         | 2,667            | 0                 | 0%            |
| Debt Service & Bank Fees                                | 8,037                         | 7,710            | (327)             | -4%           |
| <b>TOTAL BUDGET SPENDING</b>                            | <b>\$ 56,757</b>              | <b>\$ 55,277</b> | <b>\$ (1,480)</b> | <b>-3%</b>    |
| Less: Miscellaneous Revenues                            | (355)                         | (345)            | 10                | -3%           |
| Less: Net Proceeds from Bank Financing                  | (15,000)                      | (15,000)         | 0                 | 0%            |
| <b>EQUALS: Funds Needed via RS#1</b>                    | <b>\$ 41,402</b>              | <b>\$ 39,932</b> | <b>\$ (1,470)</b> | <b>-4%</b>    |
| <b>COMPARED TO: Funds Received via RS#1</b>             |                               |                  | <b>618</b>        |               |
| <b>EQUALS: Total Budget &amp; Load Over/(Under) Run</b> |                               |                  | <b>\$ 2,087</b>   |               |

## Cumulative Gross Revenue of all Monthly Components



**NYISO  
MARKET PARTICIPANT ENERGY BILLINGS  
SUMMARY OF NET RECEIVABLES**

**\*\*RECEIVABLES\*\***

|             | ORIGINAL<br>INVOICE | 4 MO TU        | 12 MO TU        | 24 MO TU         | REBILL        | Final Bill<br>Challenge | TU TOTAL         | % OF TU       |               |    |
|-------------|---------------------|----------------|-----------------|------------------|---------------|-------------------------|------------------|---------------|---------------|----|
| Nov-99      | \$ 41,914,277       | \$ -           | \$ 4,601,583    | 11% \$ 1,653,001 | 4%            | \$ 435,491              | 1% \$ 6,690,076  | 16%           |               |    |
| Dec-99      | \$ 133,158,638      | \$ -           | \$ 9,535,988    | 7% \$ 1,707,927  | 1%            | \$ 3,510,999            | 3% \$ 14,754,914 | 11%           |               |    |
| Jan-00      | \$ 217,994,281      | \$ -           | \$ 13,514,891   | 6% \$ 6,139,030  | 3%            | \$ 3,934,882            | 2% \$ 23,588,803 | 11%           |               |    |
| Feb-00      | \$ 186,799,918      | \$ -           | \$ 13,029,978   | 7% \$ 1,518,328  | 1%            | \$ 3,133,700            | 2% \$ 17,682,007 | 9%            |               |    |
| Mar-00      | \$ 124,028,665      | \$ -           | \$ -            | 0% \$ 889,309    | 1%            | \$ 24,987,775           | \$ 25,877,084    | 21%           |               |    |
| Apr-00      | \$ 135,512,224      | \$ -           | \$ -            | 0% \$ 1,287,032  | 1%            |                         | \$ 1,287,032     | 1%            |               |    |
| May-00      | \$ 222,997,916      | \$ -           | \$ 19,374,704   | 9% \$ 7,788,534  | 3%            |                         | \$ 27,163,238    | 12%           |               |    |
| Jun-00      | \$ 415,492,540      | \$ -           | \$ 27,121,792   | 7% \$ 12,457,711 | 3%            |                         | \$ 39,579,503    | 10%           |               |    |
| Jul-00      | \$ 252,252,351      | \$ -           | \$ 19,489,697   | 8% \$ 2,724,735  | 1%            |                         | \$ 22,214,432    | 9%            |               |    |
| Aug-00      | \$ 361,947,692      | \$ -           | \$ 35,775,647   | 10% \$ 5,508,600 | 2%            |                         | \$ 41,284,247    | 11%           |               |    |
| Sep-00      | \$ 319,094,875      | \$ -           | \$ 31,071,138   | 10% \$ 6,605,678 | 2%            |                         | \$ 37,676,816    | 12%           |               |    |
| Oct-00      | \$ 274,787,453      | \$ 15,496,075  | 6% \$ 3,205,891 | 1% \$ 3,745,905  | 1%            |                         | \$ 22,447,871    | 8%            |               |    |
| Nov-00      | \$ 256,009,720      | \$ 16,262,668  | 6% \$ 2,052,169 | 1% \$ 1,784,229  | 1%            |                         | \$ 20,099,066    | 8%            |               |    |
| Dec-00      | \$ 396,610,564      | \$ 19,537,029  | 5% \$ 4,026,996 | 1% \$ 4,066,092  | 1%            |                         | \$ 27,630,117    | 7%            |               |    |
| Jan-01      | \$ 344,295,355      | \$ 12,571,017  | 4% \$ 2,521,671 | 1% \$ 1,474,285  | 0%            |                         | \$ 16,566,973    | 5%            |               |    |
| Feb-01      | \$ 234,382,099      | \$ 9,148,844   | 4% \$ 1,699,302 | 1% \$ 1,263,189  | 1%            |                         | \$ 12,111,335    | 5%            |               |    |
| Mar-01      | \$ 245,443,896      | \$ 9,390,961   | 4% \$ 1,698,249 | 1% \$ 743,656    | 0%            | \$ 796,426              | 0%               | \$ 12,629,292 | 5%            |    |
| Apr-01      | \$ 231,563,601      | \$ 11,382,682  | 5% \$ 2,133,766 | 1% \$ 890,456    | 0%            | \$ 658,768              | 0%               | \$ 15,065,671 | 7%            |    |
| May-01      | \$ 258,524,171      | \$ 16,241,860  | 6% \$ 9,994,318 | 4% \$ 1,825,702  | 1%            | \$ 1,368,697            | 1%               | \$ 29,430,577 | 11%           |    |
| Jun-01      | \$ 295,777,209      | \$ 15,607,316  | 5% \$ 4,491,251 | 2% \$ 1,542,666  | 1%            | \$ 1,187,881            | 0%               | \$ 22,829,115 | 8%            |    |
| Jul-01      | \$ 331,328,591      | \$ 12,637,804  | 4% \$ 1,772,024 | 1% \$ 1,625,857  | 0%            | \$ 1,603,042            | 0%               | \$ 17,638,727 | 5%            |    |
| Aug-01      | \$ 569,513,449      | \$ 15,344,918  | 3% \$ 3,305,630 | 1% \$ 4,545,234  | 1%            | \$ 4,801,994            | 1%               | \$ 27,997,775 | 5%            |    |
| Sep-01      | \$ 193,119,838      | \$ 6,492,345   | 3% \$ 1,089,635 | 1% \$ 2,225,022  | 1%            | \$ 689,003              | 0%               | \$ 10,496,005 | 5%            |    |
| Oct-01      | \$ 167,598,022      | \$ 7,307,617   | 4% \$ 1,514,234 | 1% \$ 5,582,048  | 3%            |                         | \$ 14,403,899    | 9%            |               |    |
| Nov-01      | \$ 152,726,458      | \$ 5,896,866   | 4% \$ 1,932,100 | 1% \$ 891,443    | 1%            |                         | \$ 8,720,410     | 6%            |               |    |
| Dec-01      | \$ 162,617,275      | \$ 4,249,430   | 3% \$ 995,912   | 1% \$ 1,795,660  | 1%            |                         | \$ 7,041,002     | 4%            |               |    |
| Jan-02      | \$ 169,114,538      | \$ 4,603,989   | 3% \$ 1,328,924 | 1% \$ 999,869    | 1%            |                         | \$ 6,932,782     | 4%            |               |    |
| Feb-02      | \$ 128,174,423      | \$ 4,949,637   | 4% \$ 988,313   | 1% \$ 760,711    | 1%            |                         | \$ 6,698,661     | 5%            |               |    |
| Mar-02      | \$ 173,757,055      | \$ 7,871,772   | 5% \$ 1,361,075 | 1% \$ 1,070,136  | 1%            | \$ 591,897              | 0%               | \$ 10,894,880 | 6%            |    |
| Apr-02      | \$ 227,372,883      | \$ 8,763,681   | 4% \$ 799,348   | 0%               | \$ 1,412,591  | 1%                      | \$ 3,012,033     | 1%            | \$ 13,987,653 | 6% |
| May-02      | \$ 193,153,839      | \$ 4,859,821   | 3% \$ 1,976,821 | 1%               |               |                         | \$ 6,836,641     | 4%            |               |    |
| Jun-02      | \$ 243,510,171      | \$ 10,447,096  | 4% \$ 2,158,556 | 1%               |               |                         | \$ 12,605,652    | 5%            |               |    |
| Jul-02      | \$ 423,363,985      | \$ 14,296,715  | 3% \$ 3,381,899 | 1%               |               |                         | \$ 17,678,614    | 4%            |               |    |
| Aug-02      | \$ 417,275,164      | \$ 10,037,896  | 2% \$ 2,592,885 | 1%               |               |                         | \$ 12,630,782    | 3%            |               |    |
| Sep-02      | \$ 254,643,037      | \$ 8,336,608   | 3% \$ 3,209,330 | 1%               |               |                         | \$ 11,545,938    | 5%            |               |    |
| Oct-02      | \$ 259,006,539      | \$ 5,948,283   | 2% \$ 2,087,459 | 1%               | \$ 2,139,799  | 1%                      | \$ 10,175,540    | 4%            |               |    |
| Nov-02      | \$ 253,526,260      | \$ 5,452,407   | 2% \$ 1,839,940 | 1%               | \$ 2,351,205  | 1%                      | \$ 9,643,551     | 4%            |               |    |
| Dec-02      | \$ 299,517,867      | \$ 8,205,366   | 3% \$ 1,386,782 | 0%               | \$ 2,029,395  | 1%                      | \$ 11,621,543    | 4%            |               |    |
| Jan-03      | \$ 399,263,104      | \$ 9,844,614   | 2% \$ 2,098,338 | 1%               | \$ 1,191,493  | 0%                      | \$ 13,134,445    | 3%            |               |    |
| Feb-03      | \$ 418,175,564      | \$ 11,981,141  | 3% \$ 2,458,047 | 1%               | \$ 1,187,456  | 0%                      | \$ 15,626,644    | 4%            |               |    |
| Mar-03      | \$ 426,467,140      | \$ 9,873,309   | 2% \$ 1,267,254 | 0%               | \$ 1,773,369  | 0%                      | \$ 12,913,933    | 3%            |               |    |
| Apr-03      | \$ 288,946,161      | \$ 7,395,252   | 3% \$ 1,494,349 | 1%               |               |                         | \$ 8,889,601     | 3%            |               |    |
| May-03      | \$ 248,638,313      | \$ 5,874,403   | 2%              |                  |               |                         | \$ 5,874,403     | 2%            |               |    |
| Jun-03      | \$ 300,747,684      | \$ 7,396,478   | 2%              |                  |               |                         | \$ 7,396,478     | 2%            |               |    |
| Jul-03      | \$ 418,581,237      | \$ 13,132,010  | 3%              |                  |               |                         | \$ 13,132,010    | 3%            |               |    |
| Aug-03      | \$ 514,126,607      | \$ 13,977,562  | 3%              |                  |               |                         | \$ 13,977,562    | 3%            |               |    |
| Sep-03      | \$ 283,123,546      | \$ 6,445,812   | 2%              |                  |               |                         | \$ 6,445,812     | 2%            |               |    |
| Oct-03      | \$ 245,463,938      | \$ 5,837,631   | 2%              |                  |               |                         | \$ 5,837,631     | 2%            |               |    |
| Nov-03      | \$ 216,846,601      | \$ 9,096,310   | 4%              |                  |               |                         | \$ 9,096,310     | 4%            |               |    |
| Dec-03      | \$ 287,418,382      | \$ 11,239,879  | 4%              |                  |               |                         | \$ 11,239,879    | 4%            |               |    |
| SUBTOTAL    | \$ 13,615,705,116   | \$ 383,435,103 | \$ 246,377,886  | \$ 86,524,633    | \$ 50,370,235 |                         | \$ 777,722,933   | 6%            |               |    |
| Jan-04      | \$ 505,153,722      |                |                 |                  |               |                         |                  |               |               |    |
| Feb-04      | \$ 312,550,760      |                |                 |                  |               |                         |                  |               |               |    |
| Mar-04      | \$ 300,111,357      |                |                 |                  |               |                         |                  |               |               |    |
| Apr-04      | \$ 275,622,576      |                |                 |                  |               |                         |                  |               |               |    |
| GRAND TOTAL | \$ 15,009,143,531   | \$ 383,435,103 | \$ 246,377,886  | \$ 86,524,633    | \$ 50,370,235 |                         | \$ 777,722,933   | 5%            |               |    |

11-C

\*\*24 month True ups for May 2000 & June 2000 were fairly high due to significant adjustments to two customers' congestion rent. (\$5M in May 2000 & \$11M in June 2000)

**NYISO  
MARKET PARTICIPANT ENERGY BILLINGS  
SUMMARY OF NET PAYABLES**

**\*\*PAYABLES\*\***

|             | ORIGINAL<br>INVOICE | 4 MO TU        | 12 MO TU      | 24 MO TU       | REBILL        | Final Bill<br>Challenge | TU TOTAL      | % OF TU       |     |                |    |
|-------------|---------------------|----------------|---------------|----------------|---------------|-------------------------|---------------|---------------|-----|----------------|----|
| Nov-99      | \$ 35,518,827       | \$ -           | \$ 4,367,509  | 12%            | \$ 1,679,571  | 5%                      | \$ 7,385,458  | 21%           |     |                |    |
| Dec-99      | \$ 102,079,272      | \$ -           | \$ 8,340,216  | 8%             | \$ 1,696,026  | 2%                      | \$ 22,876,134 | 22%           |     |                |    |
| Jan-00      | \$ 183,037,026      | \$ -           | \$ 12,925,858 | 7%             | \$ 6,158,187  | 3%                      | \$ 32,697,224 | 18%           |     |                |    |
| Feb-00      | \$ 185,282,663      | \$ -           | \$ 12,448,203 | 7%             | \$ 1,547,338  | 1%                      | \$ 25,036,185 | 14%           |     |                |    |
| Mar-00      | \$ 122,503,213      | \$ -           | \$ -          | 0%             | \$ 1,160,468  | 1%                      | \$ 31,123,571 | 25%           |     |                |    |
| Apr-00      | \$ 124,848,119      | \$ -           | \$ 9,564,586  | 8%             | \$ 1,593,548  | 1%                      | \$ 11,158,134 | 9%            |     |                |    |
| May-00      | \$ 232,582,089      | \$ -           | \$ 18,902,475 | 8%             | \$ 7,780,529  | 3%                      | \$ 26,683,004 | 11%           |     |                |    |
| Jun-00      | \$ 406,914,315      | \$ -           | \$ 26,020,673 | 6%             | \$ 12,146,262 | 3%                      | \$ 38,166,935 | 9%            |     |                |    |
| Jul-00      | \$ 243,016,054      | \$ -           | \$ 18,485,919 | 8%             | \$ 2,720,323  | 1%                      | \$ 21,206,242 | 9%            |     |                |    |
| Aug-00      | \$ 361,347,651      | \$ -           | \$ 35,133,640 | 10%            | \$ 5,522,743  | 2%                      | \$ 40,656,383 | 11%           |     |                |    |
| Sep-00      | \$ 294,082,367      | \$ -           | \$ 30,486,502 | 10%            | \$ 6,594,252  | 2%                      | \$ 37,080,754 | 13%           |     |                |    |
| Oct-00      | \$ 266,390,264      | \$ -           | \$ 2,714,042  | 1%             | \$ 3,747,010  | 1%                      | \$ 22,519,570 | 8%            |     |                |    |
| Nov-00      | \$ 246,642,946      | \$ -           | \$ 1,641,605  | 1%             | \$ 1,788,082  | 1%                      | \$ 15,630,189 | 6%            |     |                |    |
| Dec-00      | \$ 385,457,152      | \$ -           | \$ 3,608,151  | 1%             | \$ 4,070,768  | 1%                      | \$ 27,238,727 | 7%            |     |                |    |
| Jan-01      | \$ 334,775,998      | \$ 12,164,291  | 4%            | \$ 2,555,817   | 1%            | \$ 1,505,088            | 0%            | \$ 20,149,851 | 6%  |                |    |
| Feb-01      | \$ 227,544,273      | \$ 8,654,168   | 4%            | \$ 1,776,808   | 1%            | \$ 1,256,091            | 1%            | \$ 14,800,320 | 7%  |                |    |
| Mar-01      | \$ 234,105,528      | \$ 7,955,548   | 3%            | \$ 1,720,487   | 1%            | \$ 748,584              | 0%            | \$ 14,489,543 | 6%  |                |    |
| Apr-01      | \$ 223,148,288      | \$ 11,261,833  | 5%            | \$ 2,545,748   | 1%            | \$ 891,614              | 0%            | \$ 15,357,752 | 7%  |                |    |
| May-01      | \$ 250,351,122      | \$ 16,266,662  | 6%            | \$ 10,011,715  | 4%            | \$ 1,839,840            | 1%            | \$ 29,498,559 | 12% |                |    |
| Jun-01      | \$ 283,165,040      | \$ 15,595,541  | 6%            | \$ 4,128,716   | 1%            | \$ 1,542,154            | 1%            | \$ 22,577,694 | 8%  |                |    |
| Jul-01      | \$ 319,423,484      | \$ 13,300,599  | 4%            | \$ 2,091,582   | 1%            | \$ 1,642,515            | 1%            | \$ 18,627,000 | 6%  |                |    |
| Aug-01      | \$ 554,917,297      | \$ 15,292,776  | 3%            | \$ 3,690,366   | 1%            | \$ 4,308,889            | 1%            | \$ 28,089,500 | 5%  |                |    |
| Sep-01      | \$ 182,063,076      | \$ 6,493,353   | 4%            | \$ 1,429,526   | 1%            | \$ 2,218,595            | 1%            | \$ 10,830,471 | 6%  |                |    |
| Oct-01      | \$ 157,220,616      | \$ 7,283,603   | 5%            | \$ 1,830,221   | 1%            | \$ 2,087,459            | 1%            | \$ 11,201,283 | 7%  |                |    |
| Nov-01      | \$ 143,420,554      | \$ 5,970,571   | 4%            | \$ 1,932,886   | 1%            | \$ 870,293              | 1%            | \$ 8,773,751  | 6%  |                |    |
| Dec-01      | \$ 154,098,810      | \$ 4,286,144   | 3%            | \$ 999,872     | 1%            | \$ 1,765,734            | 1%            | \$ 7,051,750  | 5%  |                |    |
| Jan-02      | \$ 160,819,725      | \$ 4,626,721   | 3%            | \$ 1,299,584   | 1%            | \$ 1,005,172            | 1%            | \$ 6,931,478  | 4%  |                |    |
| Feb-02      | \$ 120,848,588      | \$ 4,931,677   | 4%            | \$ 989,372     | 1%            | \$ 743,028              | 1%            | \$ 6,664,077  | 6%  |                |    |
| Mar-02      | \$ 165,725,539      | \$ 7,827,174   | 5%            | \$ 1,411,595   | 1%            | \$ 1,045,083            | 1%            | \$ 10,876,406 | 7%  |                |    |
| Apr-02      | \$ 222,151,382      | \$ 8,779,909   | 4%            | \$ 832,067     | 0%            | \$ 1,398,781            | 1%            | \$ 13,992,808 | 6%  |                |    |
| May-02      | \$ 183,815,292      | \$ 4,546,883   | 2%            | \$ 1,976,201   | 1%            |                         |               | \$ 6,523,084  | 4%  |                |    |
| Jun-02      | \$ 246,221,592      | \$ 10,434,484  | 4%            | \$ 2,155,248   | 1%            |                         |               | \$ 12,589,732 | 5%  |                |    |
| Jul-02      | \$ 409,240,558      | \$ 14,528,756  | 4%            | \$ 3,375,870   | 1%            |                         |               | \$ 17,904,627 | 4%  |                |    |
| Aug-02      | \$ 404,158,825      | \$ 10,211,707  | 3%            | \$ 2,426,894   | 1%            |                         |               | \$ 12,638,601 | 3%  |                |    |
| Sep-02      | \$ 243,973,745      | \$ 8,363,796   | 3%            | \$ 3,174,497   | 1%            |                         |               | \$ 11,538,293 | 5%  |                |    |
| Oct-02      | \$ 248,659,897      | \$ 5,971,255   | 2%            | \$ 1,740,455   | 1%            | \$ 2,130,811            | 1%            | \$ 9,842,521  | 4%  |                |    |
| Nov-02      | \$ 243,580,981      | \$ 5,477,164   | 2%            | \$ 1,818,673   | 1%            | \$ 2,336,086            | 1%            | \$ 9,631,923  | 4%  |                |    |
| Dec-02      | \$ 288,570,651      | \$ 8,221,256   | 3%            | \$ 1,368,392   | 0%            | \$ 2,029,091            | 1%            | \$ 11,618,739 | 4%  |                |    |
| Jan-03      | \$ 386,692,211      | \$ 9,867,267   | 3%            | \$ 2,071,685   | 1%            | \$ 1,195,113            | 0%            | \$ 13,134,066 | 3%  |                |    |
| Feb-03      | \$ 407,240,054      | \$ 12,015,097  | 3%            | \$ 2,443,568   | 1%            | \$ 1,185,813            | 0%            | \$ 15,644,478 | 4%  |                |    |
| Mar-03      | \$ 415,026,752      | \$ 9,888,707   | 2%            | \$ 1,259,304   | 0%            | \$ 1,773,369            | 0%            | \$ 12,921,381 | 3%  |                |    |
| Apr-03      | \$ 278,826,241      | \$ 7,393,788   | 3%            | \$ 1,500,815   | 1%            |                         |               | \$ 8,894,603  | 3%  |                |    |
| May-03      | \$ 238,359,528      | \$ 5,856,019   | 2%            |                |               |                         |               | \$ 5,856,019  | 2%  |                |    |
| Jun-03      | \$ 289,166,413      | \$ 7,355,535   | 3%            |                |               |                         |               | \$ 7,355,535  | 3%  |                |    |
| Jul-03      | \$ 404,807,368      | \$ 13,029,763  | 3%            |                |               |                         |               | \$ 13,029,763 | 3%  |                |    |
| Aug-03      | \$ 494,075,742      | \$ 14,065,141  | 3%            |                |               |                         |               | \$ 14,065,141 | 3%  |                |    |
| Sep-03      | \$ 271,779,605      | \$ 6,246,294   | 2%            |                |               |                         |               | \$ 6,246,294  | 2%  |                |    |
| Oct-03      | \$ 234,334,309      | \$ 5,816,672   | 2%            |                |               |                         |               | \$ 5,816,672  | 2%  |                |    |
| Nov-03      | \$ 206,281,555      | \$ 9,061,998   | 4%            |                |               |                         |               | \$ 9,061,998  | 4%  |                |    |
| Dec-03      | \$ 275,110,914      | \$ 11,168,245  | 4%            |                |               |                         |               | \$ 11,168,245 | 4%  |                |    |
| SUBTOTAL    | \$ 13,093,403,510   | \$ 330,210,398 | 3%            | \$ 249,197,341 | 2%            | \$ 83,074,030           | 1%            | \$ 50,464,227 | 0%  | \$ 814,152,466 | 6% |
| Jan-04      | \$ 491,534,651      |                |               |                |               |                         |               |               |     |                |    |
| Feb-04      | \$ 300,622,192      |                |               |                |               |                         |               |               |     |                |    |
| Mar-04      | \$ 287,880,497      |                |               |                |               |                         |               |               |     |                |    |
| Apr-04      | \$ 264,840,195      |                |               |                |               |                         |               |               |     |                |    |
| GRAND TOTAL | \$ 14,438,281,045   | \$ 330,210,398 |               | \$ 249,197,341 |               | \$ 83,074,030           |               | \$ 50,464,227 |     | \$ 814,152,466 |    |

# NYISO Projects Portfolio Status Report April 2004

This report provides the current status of projects prioritized by the Project Prioritization Team (PPT). Please refer to the accompanying Projects Portfolio (Gantt chart) for the latest scheduling and deployment information. This information is updated monthly in preparation for the scheduled PPT meetings.

## Priority Projects

### **A725 2004 SAS 70 Type 2 Audit**

- KPMG auditing NYISO Bid-to-Bill process – progress continues.
- Audit scope period ends November 30.
- Designated as “exempt” priority meaning that resources are made available when and as needed to support the audit.

### **A683 BEA Upgrade**

- The primary deliverable of the second phase of this project has changed and is effectively a Proof of Concept of BEA clustering for use in the SMD2 project.
- Work on the project has been put on hold since March 11 as resources were reallocated to address production issues.
- Once the production issues are resolved, work on this project will resume.

### **A573 SMD 2.0 Internal NYISO System Implementation**

- MIS interfaces are in Phase E – Project System Operation/Functional Test Phase.
- BAS re-bills are in Phase E – Project System Operation/Functional Test Phase.
- MIS rules changes are in Phase E – Project System Operation/Functional Test Phase.
- BAS rules changes are in Phase D – Build/Unit-Sub System Test.
- Upload/Download is in Phase E – Project System Operation/Functional Test Phase.
- Bid Post is in Phase E – Project System Operation/Functional Test Phase.
- The PTS replacement is in Phase D – Build/Unit-Sub System Test.
- Price Verification is in Phase D – Build/Unit-Sub System Test.
- MMRD is in Phase D - Build/Unit-Sub System Test
- Probe support is in Phase B – Concept.
- The new Load Forecaster is in Phase E – Project System Operation/Functional Test Phase.

### **A574 SMD 2.0 ABB System Implementation Support**

- Factory Acceptance Testing (FAT) was conducted on schedule at the NYISO facility for the Phase 2a SCADA / EMS software. Most scheduled tests were completed on time and successfully; a small number of tests were deferred until May to integrate the EMS software with the Business Management System (BMS) software being delivered by ABB.
- Pre-FAT tests for the Phase 2a BMS software were successfully completed at the ABB factory. A new software release was delivered to the NYISO and deployed in the NYISO test beds in advance of the Phase 2a BMS FAT tests scheduled to start in early May.

# NYISO Projects Portfolio

## Status Report

### April 2004

- Software fixes were provided by ABB for almost all the Phase 1 medium severity defects. These are being validated by NYISO staff in support of the project milestone related to this activity.
- Software development activities for the NYISO software is largely complete and the internal NYISO systems have been fully integrated with the newest versions of the ABB software.
- System design document review and approval is being conducted with ABB staff, and test planning activities for the upcoming Phase 2 acceptance tests are continuing.
- Certain Market Trial tests have been successfully started. Upload / Download testing has been completed and the Market Participant sandbox for Upload / Download has been opened for general access. Internal Quality Assurance and functional testing of the core applications is tracking to plan.

#### **A620 AMP IV including Start-up and Min Gen Mitigation**

- Project was Deployed on April 29
- Project is currently in Phase F –Post-Deployment support and Project Closure
- AMP IV will be incorporated into Legacy for pre-summer deployment, then into SMD2.

#### **A688 Inadvertent Package Replacement**

- Project is currently in Phase E – System Operational / Functional Test.
- This project is required to replace the current inadvertent interchange billing application that will be eliminated when SMD is deployed. The new application can be deployed once it has completed testing, as it is not dependent upon the SMD deployment.

#### **A697 Auto Sys Replacement**

- Project script development is 75% complete.
- Failover and recovery development is on schedule to be complete for market trials.
- The second draft of the test plan has been sent to the project team for review and feedback/approval.
- Integration testing is being coordinated with the other SMD project schedules.

#### **Next Steps:**

- Continue to track project progress on development and finalizing the test plan.
- Continue coordination efforts with the other SMD project managers in order to integrate all work and testing schedules.

#### **A696 SMD-DAC**

- Project Sponsor is reviewing final modifications to the FRS and will provide approval/comments by 5/7.
- Development is about 75% complete.
- ABB's test plan for mapboard testing was approved and preliminary FAT testing is underway.
- The overall test plan is approved and ready to proceed.

# NYISO Projects Portfolio Status Report April 2004

## Next Steps:

- Receive final approval on the baseline FRS.
- Continue to track development progress.
- Continue coordination efforts with the other SMD project managers in order to integrate all work and testing schedules.

## **A647 Station Power Accounting**

- All remaining code including the Consolidated invoice code was successfully deployed into production on April 20.
- A lessons learned session was conducted on Wednesday, April 28.

## Next Steps:

- Compile information from lessons learned and communicate results with all project stakeholders.

## **A667 Scarcity Pricing in SMD**

- This project is required for performing Scarcity Pricing calculations in SMD2.
- FRS pending final approval
- SDS/Code development in process.
- Scheduled SMD integration date is June 1.

## **A710 SMD Web Environment**

- Implementation of ACC (Wolf Road) Production and Staging Web environments is underway.
- The Sandbox version of SMD2's marketplace.nyiso.com and mis.nyiso.com have been made available for preliminary Market Participant testing.
- Activities for SMD's Web Posting of OASIS data span Phases C, D and E. Approximately 70% of the OASIS postings have completed QA, 20% are under development and the remaining 10% are under design.
- Phase D Development activities are now underway for the billing information changes to bidpost.nyiso.com (i.e., the download templates to temporarily replace Customer Settlement Statements).

## **A709 Reserve Pickup Reporting**

- Project is currently in Phase D - Development

## **A577 SMD2 Integration**

- Various Project activities are in Phases D & E, Development and QA Testing.
- Phase D Development activities are nearing completion for an application to create preMGF files for Transmission Owners
- Phase E QA testing has been completed on the interface to provide actual load values to the Load Forecast application; will be deployed once the PI system is complete.
- The Phase II iteration of the Price Verification (LECG) interface is entering Phase E QA testing.

# NYISO Projects Portfolio Status Report April 2004

## **A729 MIS / BAS Cluster and Site Failover**

- Clustering has been postponed until a later date.
- Failover includes hardware mirror for MIS/LF & BAS/HIST, DataGuard for MIS/LF & Oracle Forms failover.
- Configuration of hardware mirror was completed.
- MIS DataGuard configuration complete, LF in progress.

## **A690 Grouped Units**

- It was determined that this project must proceed as is has become a critical component for SMD. This project is now in Development & Testing.
- For prioritization purposes, this project is considered as a part of the Billing Automation projects.

## **A600 Open Billing Issues**

- The Billing Issues Group (BIG), chaired by the CFO, is responsible for resolving all identified billing issues. The A600 project was established to ensure timely action on internal billing issues (not including external items such as bad or missing metering data). Incentive Goal 7 tracks performance on the timely correction of these internal billing issues. The table below shows the total number of open billing issues coincident with the last BIG meeting, the meeting a month prior and the meeting six-months prior. Note that the four issues currently open are non-IT issues. Two pertain to FERC regulatory actions; two, to ongoing disputes between market participants.

| <b>*A600 – Open Billing Issues Status</b> |                   |                   |                   |
|---|-------------------|-------------------|-------------------|
| <b>Number of Open Issues Needing Work</b> | <b>04/28/2004</b> | <b>03/31/2004</b> | <b>10/29/2003</b> |
| <b>Total Goal 7 Issues</b>                | <b>2</b>          | <b>0</b>          | <b>2</b>          |
| <b>Total Non-Goal 7 Issues</b>            | <b>5</b>          | <b>4</b>          | <b>8</b>          |
| <b>Total Issues</b>                       | <b>7</b>          | <b>4</b>          | <b>10</b>         |

\* Note – the table structure and layout have changed to reflect the BIG committee review process.  
(Source Billing Issues Group weekly report)

## **A630 Automate Voltage Support Billing Calculation**

- Project is in Phase B – Requirements Development however, the ability to move forward with the project is dependent upon the availability of resources.
- For prioritization purposes, this project is considered as a part of the Billing Automation projects.

## **A687 Automate Local Black Start Calculation**

- Project is delayed pending availability of resources
- For prioritization purposes, this project is considered as a part of the Billing Automation projects.

# NYISO Projects Portfolio Status Report April 2004

## **A636 85/15 Schedule 1 Split - Phase 1**

- This project has been placed on hold pending the availability of resources.
- Customer Settlements will continue to calculate this component of customer bills manually until a software solution is made available.
- For prioritization purposes, this project is considered as a part of the Billing Automation projects.

## **A689 Store Intermediate Billing Calculation Data**

- The project is currently on hold.

## **A676 Automate DAM Congestion Shortfall Calculation**

- Automation of the billing process is delayed pending availability of resources.
- For prioritization purposes, this project is considered as a part of the Billing Automation projects.

## **A730 CSC Interim Solution**

- Project is currently in Phase B – Requirements
- Completion of contract with Scheduling Agent (SA) in progress. Requirements for SA and NYISO being defined.

## **A619 Controllable Tie Lines Scheduling & Pricing**

- Project is currently in Phase B – Requirements.
- Next step is FRS sign-off by VPs pending completion of NYISO review.

## **A707 Process to Enhance the Settlement Cycle**

- Project requirements are currently being defined.

## **A675 Billing Simulator**

- A feasibility study has been completed.
- A proof-of-concept demonstration has been provided and the statement of work has been completed and signed.
- Hardware and software configurations have been completed.
- Use case reviews are on going and near completion for this Phase.

## **A708 Consolidate NYISO Offices**

- The development of a detailed layout (Phase II Lamb Report) is in progress.
- The Site Selection process is continuing.

## **A724 PCC Modifications – Security**

- A Project Plan has been developed for Phase I of the project based on a detailed timeline from our Owners Rep.
- Bi-weekly meetings with the Owner Rep and sub contractors have been scheduled and are in progress.
- Phase I includes work in the Lobby and Guard House at the PCC and has begun.

# NYISO Projects Portfolio Status Report April 2004

## **A734 Guard Deployment – 24 x 7**

- Security stations have been set up at the PCC with others in the process of being configured.
- The redundant server has been received and configured for the Diamond II system.
- The new security system (Diamond II) is scheduled to be configured and rolled out to Wolf, Annex and Washington Ave. by May 14.

## **A737 Migration to New Facility**

- A preliminary project plan has been developed.
- Advisory committees have been identified to break down the work of the migration and develop a detailed plan.

## **A739 Capital Improvements at PCC in Guilderland**

- Meetings have been held to analyze and identify possible modifications.
- A preliminary report has been written identifying possible modifications to be made.
- Work has been put on hold as the focus of the resources have been place on the New Facility project.

## **A649 Oracle 9i Upgrades (Financials)**

- This project includes upgrading the Oracle Financials application to 11i, upgrading the database to 9i, and moving application & data to new hardware.
- FRS final draft to be sent out for approval after technical review.
- New Finance 1 server installed at PCC. Installation of Finance 2 (back up) server location TBD.

## **A732 Oracle Forms Upgrade to 6i**

- FRS draft completed
- Forms 6i server upgrade completed.
- Summer Intern to perform Client PC Launchpad upgrades for all NYISO users.

## **A658 Facilitated Checkout**

- ISO-NE plans to implement the production checkout service in early May. NYISO operations display to utilize this data targeted for release shortly thereafter.

## **A543 UCAP Market Automation**

- Project is currently in Phase E – Construction Phase.
- Coding is scheduled to complete on June 30.
- QA testing of the delivered builds is underway.

## **A541 TCC Online Auction Automation**

- Project to resume after A543 completed.

# NYISO Projects Portfolio Status Report April 2004

## **A706 Develop a Virtual Regional Dispatch**

- Scope and project requirements/deliverables are not yet defined.

## **A663 DSS Settlements Datamart IV**

- Deployed Holes Set 1 (intermediate data for Power Suppliers, Power Suppliers Ancillary, Day Ahead Demand Response Program, Reserves Pickup) -on April 6 & 7.
- Project has been completed.

## **A664 DSS Enhancements V**

- Deployed Automated Invoice and Transportable Table Space on April 6 & 7.
- Deployed November 1999 Phase 3 on April 15.
- ADD Phase 1 (External Deployment on June 30)
  - Development Phase (Risks due to Grouped Units track and availability of DSS QA environment)
  - Prepared technical documentation for MPs to be distributed on May 12
- Training and Mentoring:
  - Quickstart/Mentoring program: 80 % completed with Customer Settlement, Continued working with Market Monitoring, Started sessions with Credits
  - Updated materials for Introduction and Intermediate training
  - Worked on DSS Marketing Brochure
- Gathering technical requirements for SMD & Grouped Units (timing of Grouped Units, ADD, and SMD2 represents risks because 3 major tracks are sharing a single DSS development and QA environment)
  - Looking into the cost/resources impact of creating multiple development and QA environments to mitigate that risk.
- Resource: Working on staffing level for the DSS for the remainder of this year.

## **A700 Computer System Availability Monitoring**

- Scope and requirements have yet to be fully defined.

## **A699 MDEX Enhancements**

- Scope and requirements have yet to be fully defined.

## **A704 Operational Information to the Marketplace**

- Scope and project requirements/deliverables are not yet defined.

## **A705 Inter-ISO Standards for Market Messages**

- Scope and requirements have yet to be fully defined.

## **A556 Documentum Implementation**

- The deployment of Committee Support and Regulatory Affairs was completed on March 23.
- The next phase of the implementation will be managed under project A740 Documentum - IT Implementation.

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**A740 Documentum - IT Implementation**

- Work has begun on the FRS.
- A project kickoff meeting with the IT managers and supervisors occurred on April 20.

**A703 SW Development Lifecycle Tools**

- Bearing Point was contracted to perform an assessment of SW development lifecycle.

**A701 New Technology Initiatives**

- Scope and requirements have yet to be fully defined.

**A657 OSS SMD2 Support (15-Minute Schedules and ICAP Prescheduling)**

- Development complete. Targeted for integration with SMD SAT testing.
- Contingency plan under development to allow deployment to legacy base code in Spring 04.

**A660 E-Tagging Integration**

- Project was deployed on April 25.
- Currently in Phase F –Post-Deployment support and Project Closure.

**A702 Enhanced Market Security**

- Scope and requirements have yet to be fully defined.

| Project ID                    | Project Description                              | Priority | Next Deployment | Project Manager | Project Sponsor | Estim Level | Remaining Hours | 2004 |     |     |     |     |     |     |     |     |  |  |  |
|-------------------------------|--|----------|-----------------|-----------------|-----------------|-------------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
|                               |  |          |                 |                 |                 |             |                 | Apr  | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |  |  |  |
| <b>1 -- Priority Projects</b> |  |          |                 |                 |                 |             |                 |      |     |     |     |     |     |     |     |     |  |  |  |
| A725                          | 2004 SAS 70 Type 2 Audit                         | Exempt   |                 | RUBIN           | BUDD            | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A683                          | BEA Upgrade                                      | 1        | 04/30/04        | FARNEY          | FELL            | 2           | 609             |      |     |     |     |     |     |     |     |     |  |  |  |
| A573                          | SMD 2.0 Internal NYISO System Implementation     | 2        | 09/15/04        | SMITH           | CALIMANO & KING | 2           | 17,090          |      |     |     |     |     |     |     |     |     |  |  |  |
| A574                          | SMD 2.0 ABB System Impementation Support         | 2        | 09/15/04        | MILLS           | CALIMANO & KING | 2           | 19,772          |      |     |     |     |     |     |     |     |     |  |  |  |
| A620                          | AMP IV Including Startup & Mingen Mitigation     | 2        | 04/15/04        | PELUSO          | BUDD            | 2           | 519             |      |     |     |     |     |     |     |     |     |  |  |  |
| A688                          | Inadvertent Package Replacement                  | 2        | 04/19/04        | MCGINNIS        | FRANKOWSKI      | 2           | 193             |      |     |     |     |     |     |     |     |     |  |  |  |
| A697                          | AutoSys Replacement                              | 2        |                 | VETTER          | FELL            | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A696                          | SDAC Replacement                                 | 2        | 05/07/04        | VETTER          | FELL            | 2           | 1,534           |      |     |     |     |     |     |     |     |     |  |  |  |
| A647                          | Station Power Accounting                         | 2        | 04/13/04        | VETTER          | FRANKOWSKI      | 2           | 698             |      |     |     |     |     |     |     |     |     |  |  |  |
| A667                          | Scarcity Pricing in SMD [NEW]                    | 2        |                 | RINALDI         | KING            | 2           | 416             |      |     |     |     |     |     |     |     |     |  |  |  |
| A710                          | SMD Web Environment                              | 2        |                 | MILLER          | FELL            | 2           | 1,764           |      |     |     |     |     |     |     |     |     |  |  |  |
| A709                          | Reserve Pickup Reporting                         | 2        | Deploy with SMD | MCGINNIS        | CALIMANO        | 3           | 1,872           |      |     |     |     |     |     |     |     |     |  |  |  |
| A577                          | SMD 2.0 Integration                              | 2        |                 | MILLER          | FELL            | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A729                          | MIS / BAS Cluster and Site Failover              | 2        |                 | RINALDI         | FELL            | 1           | 159             |      |     |     |     |     |     |     |     |     |  |  |  |
| A690                          | Grouped Units                                    | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A600                          | Open Billing Issues                              | 3        |                 | DUFFY           | FRANKOWSKI      | 1           | 8,619           |      |     |     |     |     |     |     |     |     |  |  |  |
| A630                          | Automate the Voltage Support Service Corrections | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A687                          | Automate Local Black Start Calculation           | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A636                          | 85/15 Rate Schedule 1 Split - Phase 1            | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A689                          | Store Intermediate Billing Calculation Data      | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A676                          | Automate DAM Congestion Shortfall Calculation    | 3        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A730                          | CSC Interim Solution                             | 5        |                 | FITTS           | CALIMANO        | 1           | 385             |      |     |     |     |     |     |     |     |     |  |  |  |
| A619                          | Controllable Tie Lines Scheduling and Pricing    | 4        |                 | FITTS           | CALIMANO        | 1           | 5,696           |      |     |     |     |     |     |     |     |     |  |  |  |
| A707                          | Process to Enhance the Settlement Cycle          | 6        |                 | MCGINNIS        | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A675                          | Billing Simulator                                | 7        |                 | PELUSO          | FRANKOWSKI      | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A708                          | New NYISO Facility                               | 8        |                 | FARNEY          | RAGOGNA         | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A724                          | PCC Modifications - Security                     | 8        |                 | FARNEY          | RAGOGNA         | 1           | 547             |      |     |     |     |     |     |     |     |     |  |  |  |
| A734                          | Guard Deployment - 24 x 7                        | 8        |                 | FARNEY          | RAGOGNA         | 1           | 222             |      |     |     |     |     |     |     |     |     |  |  |  |

|               |             |  |   |
|---------------|-------------|--|---|
| <b>Legend</b> | <b>12-B</b> | <b>Estimate Level</b>  | Duration Based Schedule    |
|               |             | 1 - Class 100 Estimate Based on Concept of Operations                | Resource Limited Schedule  |
|               |             | 2 - Class 50 Estimate Based on Functional Requirements Specification | Deployment Milestone       |
|               |             | 3 - Class 10 Estimate Based on Detailed Design                       | Estimated FRS Completion   |
|               |             | * - Estimate Through Identified Deployments Only                     |   |

| Project ID | Project Description                                       | Priority | Next Deployment | Project Manager | Project Sponsor | Estim Level | Remaining Hours | 2004  |     |     |     |     |     |     |     |     |  |  |  |
|------------|---|----------|-----------------|-----------------|-----------------|-------------|-----------------|---|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
|            |   |          |                 |                 |                 |             |                 | Apr   | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |  |  |  |
| A737       | Migration to New Facility [NEW]                           | 8        |                 | FARNEY          | RAGOGNA         | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A739       | Capital Improvements of PCC in Guilderland [NEW]          | 8        |                 | FARNEY          | RAGOGNA         | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A649       | Oracle Financials Upgrades                                | 9        |                 | RINALDI         | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A732       | Oracle Forms Upgrade to 6i                                | 10       |                 | RINALDI         | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A658       | Facilitated Checkout                                      | 11       | Deployed        | MARTIN          | FELL            | 2           | 4,028           |    |     |     |     |     |     |     |     |     |  |  |  |
| A543       | UCAP Market Automation                                    | 13       | Post SMD        | FITTS           | KING            | 2           | 10,070          |    |     |     |     |     |     |     |     |     |  |  |  |
| A541       | TCC Online Auction Automation                             | 14       |                 | FITTS           | KING            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A706       | Develop a Virtual Regional Dispatch                       | 15       |                 | VETTER          | KING            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A663       | DSS Settlements Datamart IV                               | 16       |                 | LE              | FELL            | 2           | 1,126           |    |     |     |     |     |     |     |     |     |  |  |  |
| A664       | DSS Market Monitoring Datamart I                          | 17       |                 | LE              | FELL            | 2           | 3,728           |    |     |     |     |     |     |     |     |     |  |  |  |
| A700       | Computer Systems Availability Monitoring                  | 18       |                 | RINALDI         | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A699       | MDEX Enhancements   | 19       |                 | LE              | MURPHY          | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A704       | Operational Information to the Marketplace                | 20       |                 | VETTER          | KING            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A705       | Inter-ISO Standards for Market Messages                   | 21       |                 | PELUSO          | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A556       | Documentum Implementation                                 | 22       | Deployed        | FARNEY          | SANFORD         | 3           | 559             |    |     |     |     |     |     |     |     |     |  |  |  |
| A703       | SW Development Lifecycle Tools                            | 23       |                 | FITTS           | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A701       | New Technology Initiatives                                | 24       |                 | PELUSO          | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |
| A657       | OSS SMD Support (15-Min Schedules and ICAP Prescheduling) | 25       |                 | PELUSO          | FELL            | 2           | 1,839           |   |     |     |     |     |     |     |     |     |  |  |  |
| A660       | E-Tagging Integration                                     | 26       | 04/20/04        | PELUSO          | FELL            | 2           | 639             |  |     |     |     |     |     |     |     |     |  |  |  |
| A702       | Enhanced Market Security                                  | 27       |                 | FITTS           | FELL            | N/A         | N/A             |   |     |     |     |     |     |     |     |     |  |  |  |

|               |  |  |   |
|---------------|--|--|---|
| <b>Legend</b> | <b>12-B</b>                                      | <b>Estimate Level</b>  | Duration Based Schedule    |
|               |  | 1 - Class 100 Estimate Based on Concept of Operations                | Resource Limited Schedule  |
|               |  | 2 - Class 50 Estimate Based on Functional Requirements Specification | Deployment Milestone       |
|               |  | 3 - Class 10 Estimate Based on Detailed Design                       | Estimated FRS Completion   |
|               | * - Estimate Through Identified Deployments Only |  |   |

| Project ID                         | Project Description  | Priority | Next Deployment | Project Manager | Project Sponsor | Estim Level | Remaining Hours | 2004 |     |     |     |     |     |     |     |     |  |  |  |
|------------------------------------|--|----------|-----------------|-----------------|-----------------|-------------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
|                                    |  |          |                 |                 |                 |             |                 | Apr  | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |  |  |  |
| <b>2 -- Studies &amp; Training</b> |  |          |                 |                 |                 |             |                 |      |     |     |     |     |     |     |     |     |  |  |  |
| A680                               | Annual (2003) New York Area Transmission Review            | 1        | 04/28/04        | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A037                               | NYISO/TO Baseline Plan Study - 2001                        | 2        |                 | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A591                               | Calpine (was SkyGen) Waterford                             | 3        | 04/15/04        | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A208                               | NYSEG Solutions So. Glens Falls Expansion (Reimbursable)   | 4        |                 | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A679                               | SIS for Liberty Proposed Transmission Expansion            | 5        | 09/24/04        | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A682                               | NYISO Transmission Planning Process                        | 6        | 12/28/04        | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A692                               | NYISO-NYSERDA Wind Generation Integration Study            | 7        | 01/06/05        | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A726                               | SRIS for the East Coast Power Linden Gen Expansion Project | 8        |                 | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A727                               | SRIS for the East Coast Power Linden VFT Inter-Tie Project | 9        |                 | COREY           | BROWN           | 2           | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A621                               | Restoration Sensitivity Studies                            | N/A      |                 | WALDELE         | CALIMANO        | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A645                               | Operations Reactive Study                                  | N/A      |                 | WALDELE         | CALIMANO        | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A672                               | Quebec - New York Interconnection Limit Analysis           | N/A      |                 | WALDELE         | CALIMANO        | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |
| A673                               | Athens Generation In-Service Operating Study               | N/A      |                 | WALDELE         | CALIMANO        | N/A         | N/A             |      |     |     |     |     |     |     |     |     |  |  |  |

**Legend**
**12-B**
**Estimate Level**

- 1 - Class 100 Estimate Based on Concept of Operations
- 2 - Class 50 Estimate Based on Functional Requirements Specification
- 3 - Class 10 Estimate Based on Detailed Design
- \* - Estimate Through Identified Deployments Only

 Duration Based Schedule 

 Resource Limited Schedule 

 Deployment Milestone 

 Estimated FRS Completion 