# NYISO PRICE ERROR ELIMINATION REPORT AND ACTION PLAN

August 30, 2005

### BACKGROUND

Recent changes in the NYISO markets have produced an increase in price calculation errors. Accordingly, the NYISO and its Market Participants have identified a need to address the underlying causes of these price calculation errors. This report summarizes actions taken by the NYISO thus far in its efforts and describes the NYISO's plan for future actions to minimize price calculation errors.

## **PROGRESS REPORT**

The NYISO has made important progress in correcting the software problems that followed the implementation of the SMD2 systems in February 2005. Following the deployment of the new market and grid management software, an internal review team conducted a performance analysis of the underlying causes of pricing errors. Subsequently, the NYISO introduced numerous software enhancements to address price calculation errors that were resulting from the issues identified, thereby reducing the number of price reservations and corrections required. These efforts continue today as the NYISO continues to make the implementation of software improvements and enhancement to the SMD2 systems one of its highest priorities.

Specific software improvements that have already been implemented to address post-SMD2 price errors include:

- (i) Load forecasting software issues and modeling errors in managing transition between short-term and long-term forecasting models (*February 2005*);
- (ii) Real-time dispatch ("RTD") software unit ramping logic issues (*February* 2005);
- (iii) Desired Net Interchange ("DNI") constraint problem affecting external proxy pricing (*June 2005*);
- (iv) RTD commitment problem of gas turbines ("GTs") in corrective action mode ("RTD-CAM") (July 2005);
- (v) Out of Merit ("OOM") application incorrectly flagging committed Combustion Turbines ("CTs") as flexible units (*August 2005*); and
- (vi) Generator operating status issues (August 2005).

A limited number of software issues continue to cause price calculation errors, but the price calculation error rate is steadily improving. This has been reflected in the declining number of price reservations and corrections. The NYISO reports to the Federal Energy Regulatory Commission twice each month on the progress of the efforts described above.

In addition to software enhancement and modifications, the NYISO has created an internal task force—the Price Error Elimination Team—to investigate and document the causes of pricing errors and ultimately limit the recurrence of such errors through a combination of software, process, or rule-based solutions. The team is lead by Rich Dewey (Product and Project Management), and includes Robb Pike (Information Technology), Rick Gonzales (Market Operations), Bob Thompson (Market Strategy), and Nicole Bouchez (Market Monitoring). This task force will report regularly to the CEO, an executive steering committee, and stakeholders. To the extent that the correction of a specific pricing error represents a significant scope of work or would otherwise impact the NYISO project schedule adversely, the NYISO project prioritization process shall determine the impact, priority, and schedule of such issues. Finally, the NYISO has introduced a process improvement program based upon Lean Six Sigma principles. Several projects launched under this program target potential improvements to the system expected to yield further reduction in pricing errors.

#### **ACTION PLAN**

The Price Error Elimination Team at the NYISO will continue to work toward minimizing price calculation errors and the resulting reservations and corrections. Recognizing the varied causes of these errors, the NYISO will implement a number of measures, including:

- (i) Analysis and categorization of price errors, each with a recommendation for an appropriate remedial action;
- (ii) High-priority allocation of software resources to correct price calculation issues;
- (iii) Initiation of Lean Six Sigma projects targeting internal processes that contribute to pricing errors; and
- (iv) Additional design resources dedicated to create solutions for those price error issues that require new software designs or protocols.

The NYISO will revise and expand this Action Plan upon completion of its analysis of the existing causes of price calculation errors. The Price Error Elimination Team will address any modifications to this plan and regularly apprise stakeholders of progress.

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