UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.) Docket No. ER04-230-___

REQUEST FOR EXPEDITED ACTION AND FOR WAIVERS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

The New York Independent System Operator, Inc. ("NYISO") respectfully requests a waiver of tariff provisions as needed to enable the NYISO to correct errors in price determinations resulting from certain problems encountered in the implementation of the NYISO's Standard Market Design version 2 software ("SMD2"). The errors have caused prices to be either too high or too low relative to the price calculations specified in the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff") and Open Access Transmission Tariff ("OATT"). Thus, the corrections are necessary to ensure that prices conform to the tariffs. The nature of the SMD2 implementation problems, the proposed price corrections, and the requested waiver are described below.

I. Copies of Correspondence

Communications regarding this proceeding should be addressed to:

Robert E. Fernandez, General Counsel and Secretary
Mollie Lampi, Assistant General Counsel
Elaine D. Robinson, Acting Director of Regulatory Affairs
New York Independent System Operator, Inc.
290 Washington Avenue Extension
Albany, N.Y. 12203
Tel: (518) 356-7661
Fax: (518) 356-4702
rfernandez@nyiso.com
mlampi@nyiso.com
erobinson@nyiso.com

William F. Young
Ted J. Murphy
Susan E. Dove
Hunton & Williams LLP
1900 K Street, N.W.
Washington, D.C. 20006
Tel: (202) 955-1500
Fax: (202) 778-2201
wyoung@hunton.com
tmurphy@hunton.com
sdove@hunton.com

II. Background

The SMD2 represents a significant enhancement in the overall efficiency of the markets administered by the NYISO.[1] In SMD2, the Real-Time Commitment ("RTC") replaces the hour-ahead reliability commitment performed by the legacy Balancing Market Evaluation ("BME"), and the Real-Time Dispatch ("RTD") replaces the decades-old Security Constrained Dispatch ("SCD") software.[2] The RTC and RTD produce prices that more accurately reflect actual market and system conditions by, among other things, being fully compatible with each other, unlike BME and SCD, and being more tightly integrated with the Day-Ahead Market software.[3] RTC produces more complete and timely information than did BME, by issuing a commitment analysis every fifteen minutes that is based on the Day-Ahead commitment, and updated load and loss forecasts.[4] RTD co-optimizes to solve simultaneously for Load, Operating Reserves, and Regulation Service on a least-as-bid production cost basis, and normally runs every five minutes, with its solutions "coordinated to the extent possible with the quarter hourly points in time solved by RTC."[5]

---

[1] *New York Independent System Operator, Inc.*, New York Independent System Operator, Inc.'s Tariff Revisions Reflecting the Implementation of Enhanced Real-Time Scheduling Software, Docket No. ER04-230-000 (Nov. 26, 2003) ("SMD2 Filing").

[2] Unless otherwise specified, capitalized terms used herein have the meanings specified in the Services Tariff.

[3] SMD2 Filing at 8.

[4] *Id.* at 10.

[5] *Id.* at 11. SMD2 improves the efficiency of the New York markets by: (1) incorporating lost opportunity costs into the real-time ancillary services market-clearing prices; (2) enabling the NYISO to commit and dispatch resources more efficiently; (3) (continued…)

III. Real-Time Market Price Corrections and Tariff Waivers

A. SMD2 Implementation Errors

Overall, SMD2 is operating well, and is fulfilling its promise of substantial improvements in the efficiency of the Real-Time commitment and dispatch. Notwithstanding extensive testing, evaluation and market trials, however, some limited calculation and data input errors came to light in the SMD2 implementation. Two main categories of unanticipated implementation problems in establishing Real-Time prices were encountered. The first involved the load forecasting function, and the second involved unit start-up and shutdown sequences, which can be grouped as ramping modeling errors. A few miscellaneous errors were discovered as well. The NYISO has also encountered system limitations on the ability to post price corrections within the timeframes normally achieved.

The erroneous prices occurred only in the Real-Time Market. Day-Ahead Market prices, which account for 95% or more of the MW transacted in the NYISO-administered markets, were not affected. Thus, the price corrections encompass only a small fraction of the MW transacted in the NYISO markets.

---

lessening the need for out-of-merit resource calls; (4) increasing pricing consistency across time periods; (5) reducing uplift charges; and (6) integrating efficient scarcity pricing into the markets. SMD2 also permits the adoption of co-optimized two-settlement markets for Operating Reserves and Regulation Service, supports greater market participation by Demand Side Resources, facilitates the resolution of seams issues between markets, if any, and enhances the NYISO's market power mitigation measures to protect against market power abuses without compromising legitimate bidding behavior or scarcity prices. In addition to addressing longstanding issues, SMD2 serves as a foundation for future improvements and will help the New York markets reach their full potential. SMD2 Filing at 1, 2 and 8.

1. Forecasting Errors

The forecasting errors were remedied with software fixes installed and operating as of the hour beginning 15:00 on February 4. Thus, the forecasting errors only affected prices in the period from the beginning of February 1 through the hour beginning 14:00 on February 4.

There were two types of forecasting problems. First, there was an incorrect equation in a forecasting algorithm that caused the model to input hour-old data in the determination of the forward-looking load forecasts at minutes 45, 50 and 55 of each hour, instead of putting more current data into the forecasting algorithm. The most pronounced pricing effects from this inputting of untimely data occurred, as might be expected, in the periods when loads were changing significantly from hour to hour, which generally occurs in the morning load pickup, the evening load pickup, and the late evening load drop-off. The largest errors occurred in the intervals beginning at minute 45, but residual errors carried over to the intervals beginning at minutes 50 and 55. A total of 258 of the five minute intervals in the period described above were affected. The maximum hourly average under-forecast in any given hour was 524 MW, and the maximum hourly average over-forecast in any given hour was 331 MW. This compares with average forecasted loads during morning pickup periods of approximately 20-21,000 MW, and in evening pickup periods of 21-22,000. Relatively small forecast changes in these periods of relatively rapid load changes can have significant price effects, however, depending on the ramp rates of the available units.

The second type of problem arose from the software filter used to screen out faulty metering data from the load forecasts. The SMD2 design uses a range of metering

data as inputs to update and refine the SMD2 load forecasts. The design recognizes that some screening of the metering data would be needed to filter out the inevitable anomalies. The data filtering screens were erroneously set at levels that were too restrictive, however, and were screening out legitimate metering data. This filtering problem affected 549 of the five minute intervals over the period described above. Across the New York Control Area, the filtering errors under-reported load by an average of 111 MW, and over-reported by an average of 47 MW.

The two types of problems together affected 668, or 65%, of the five minute intervals in the period from the beginning of February 1 to the hour beginning 15:00 on February 4, with 139 intervals affected by both types of problems. The errors caused the load forecasts to be either too high or too low relative to forecasts generated with more timely and accurate data. As a result, any resulting pricing errors were not all in one direction; the prices may have been too high or too low.

2. Ramping Errors

The ramping errors resulted from inaccuracies in the software modeling of (i) single generator scheduling, (ii) uninstructed generation of gas turbine generators at the end of their operating cycles, (iii) pre-ramping of steam generators in their shut-down cycles, and (iv) the pre-ramping of self-scheduled resources both in starting up and shutting down. Identifying and particularizing these modeling problems required extensive new data searches and data screening. Working on an expedited basis with its contractors, the NYISO was able to get software fixes implemented to correct the ramping models, along with fixes for the miscellaneous errors described below, written, tested and installed by February 23.

In general, the errors caused the relevant units to be modeled as ramping more quickly than was actually the case, or not quickly enough. Thus, as with the forecasting errors, the ramping errors, and any resulting price effects, were not all in one direction.

Additional miscellaneous errors were encountered in the start-up, each affecting only a few RTC or RTD intervals relative to the other errors. These included: (a) erroneous metering data that caused a large unit to appear to have tripped off line when it had not, for a short period on one day; (b) an incorrect limit on the Total East transmission interface for one hour on one day; (c) incorrect shadow prices on the Astoria West-Queensbridge constraint on one day; (d) a self-scheduled resource erroneously setting prices for certain hours on one day; (e) incomplete data that affected the posting of RTC prices on February 4 and 5; (f) erroneous removal of an external shadow price from an external interface for one hour on one day; and (g) an outage of the Management Information System (MIS) and a backup control center changeover that caused all gas turbine generators to appear to be unavailable during two intervals on one day. As with the other start-up problems, the pricing effects of these errors were not all in one direction.

B. Proposed Price Corrections

1. Forecasting Errors

Ideally, the forecasting errors could be corrected by re-running RTD for each of the four days at issue with corrected forecasting data. The NYISO has concluded, however, with input from LECG, the consultant the NYISO has retained to assist on the technical aspects of price corrections, that this would be virtually impossible to do. During systems operations, the forecasting errors resulted in significant swings in the

Area Control Error (ACE) as the forecasted load deviated from the actual load. As part of their normal responsibilities, the NYISO system operators, while monitoring the ACE, made manual "load bias" adjustments to minimize ACE deviations. Correcting the load forecast errors would require compensating for the effects of those operator-directed load bias adjustments taken on account of the load forecast errors.

In addition, ACE deviations can arise from a range of other factors as well, all of which would have to be understood and quantified in order to limit any price corrections to the forecasting errors. Doing so would be an extremely burdensome and time consuming process, involving reconstruction of a myriad of load bias adjustments through examination of the operator logs for the four days involved, and would require sufficient detail in the logs to separate out any forecasting error adjustments from any load bias adjustments made for any other reasons. In addition, given the time pressures of Real-Time operations, load bias adjustments are generally made state-wide rather than on a more granular locational basis, whereas a significant portion of the forecasting errors were associated with one or more specific zones. Thus, it would also be necessary to reconcile the differing geographic scopes of the forecasting errors and any related load bias adjustments. The NYISO does not believe it would be possible as a practical matter to reconcile all of the interactive elements described above.

Accordingly, the NYISO proposes, after considering analysis and recommendations from LECG, to use RTC prices as a reasonable approximation of the Real-Time system conditions and prices during the affected RTD intervals. An alternative would be to substitute Day-Ahead prices, but RTC is a superior proxy because RTC runs far closer in time to any given RTD interval. On the days in question, RTC

solved for a much closer approximation of Real-Time conditions than the Day-Ahead software, including recognizing significant constraints on Central East and other interfaces that were not part of the Day-Ahead solutions. RTC was subject to the same forecasting errors as RTD, and is subject to similar load bias compensation problems, because both RTD and RTC use the same forecast data sources. The effects of the forecasting errors were significantly ameliorated in RTC, however, by the longer time horizon for RTC solutions. As noted above, RTC has 30 minutes, rather than five, to select resources, and thus can select units with longer ramp times than would be available to RTD solutions. RTC can also commit gas turbines, and can change import and export schedules. RTC prices thus provide a better approximation of Real-Time system conditions, while significantly reducing the effects of the load forecasting errors.

2. Ramping and Miscellaneous Errors

The incorrect prices resulting from the ramping errors described above can be corrected by using the relevant saved data sets to re-run RTD for the relevant intervals. This will result in prices that are calculated as specified in the RTD pricing methodology.

Re-running RTD is not, however, a trivial exercise. Since the RTD calculates solutions every five minutes, re-running RTD involves an enormous amount of data. The process of determining the relevant intervals, re-loading and checking the relevant data, and then re-running the RTD, will take about a day of effort by the NYISO and LECG for each day in which the errors occurred, once the appropriate systems and data communications are set up, and subject to the information systems constraints described in the following section.

The NYISO will also seek to correct the miscellaneous errors described above by re-runs of RTD. In a few instances, this may not be practicable, because of data or other system limitations. If so, the NYISO will use RTD prices from a proximate preceding or following RTD interval, or RTC prices, as the best available means for correcting an erroneous RTD interval. A close RTD interval, if available, would likely provide the closest substitute for the theoretically correct price, given its proximity in time to the interval to be corrected.

3. Price Correction in the Period up to March 7

The NYISO, assisted by LECG, is fully engaged in the price correction process. In the period from March 1 through March 7, however, the NYISO information systems were also engaged in generating bills for February. During this period, because of billing system requirements that the prices in the NYISO database be frozen while the bills are being generated, as well as related limitations of the computer systems, there were unavoidable delays in the calculation and posting of price corrections, in addition to the day-for-day price correction effort described above. In the period after February 24 and including March 1-7, however, the NYISO has been and will be reserving prices that may need to be corrected on an hour-by-hour basis, in accordance with its normal practice. It will also inform the Market Participants of hours in which price corrections are not required.

C. Stakeholder Review

The SMD2 implementation errors were discussed with the NYISO's Scheduling and Pricing Working Group on February 15 and 25, and on March 8. At the February 25th meeting, Mr. Andrew Hartshorn of LECG made a detailed presentation on the nature

and extent of the errors, and fielded stakeholder questions. At the March 8 meeting, the NYISO updated the Market Participants on the price correction process, and on its intent to make this filing.

The NYISO believes that there is a large measure of consensus among the Market Participants that the SMD2 implementation errors described above produced prices that deviated, both higher and lower, from the prices that should have been produced by the SMD2 market design, and that the errors should be corrected. Some Market Participants have expressed concern that price corrections have not been completed within the normal five day window within which the NYISO makes every effort to verify and correct prices. In addition, a question was raised at the March 8 meeting as to whether RTC prices should be used for all intervals from February 1 through February 23, in order to speed the price correction process. The NYISO believes that the goal of the price correction process should be to correct prices to the price determination requirements of the tariff. While this may not always be feasible, since the correct price outcomes can be replicated by re-running RTD within a reasonable and specified period of time to correct prices after the hour beginning 14:00 on February 23, it is not appropriate to use an alternative price correction methodology based on proxy prices.

D. Request for Waiver of Tariff Provisions

The NYISO has an obligation to ensure that prices are determined in accordance with the requirements of its Commission-approved tariffs. The NYISO is also fully cognizant of the Market Participants' desire for price certainty, and it shares their desire that accurate market prices be calculated and posted as soon as possible. Given the complexity, breadth and depth of the SMD2 market improvements, however, and the

unanticipated nature of the implementation errors, which only came to light after SMD2 started actual operations, it was simply not possible to identify the errors and the steps necessary to correct the errors, and to implement those steps, within the normal five day price correction window. In addition, experience in this start-up period shows that the innovative and far-reaching SMD2 improvements, with frequent simultaneous optimization of multiple markets, also do not benefit from the accumulated experience gained in dealing with price corrections under the less sophisticated BME/SCD regime. In the context of the implementation of "more numerous and substantial software changes than any NYISO project since the inception of the ISO Administered Markets,"[6] the NYISO respectfully submits that there needs to be a reasonable balance between the competing goals of price certainty and price accuracy, and that price accuracy should be achieved by the best means available in the circumstances.

As described above, the NYISO proposes to substitute RTC prices for RTD prices for all RTD intervals from February 1 through the hour beginning 14:00 on Febrary 4, 2005. While price substitutions are not part of the normal price calculations, the proposed correction methodology will produce prices that are as close as practicable to the design and intent of the price determination requirements of the SMD2 tariff, and are thus consistent with the Temporary Extraordinary Procedures ("TEP") in the NYISO's tariff. The TEP apply to the correction of a "Market Implementation Error," defined as "a flaw in the design or implementation of software that results in LBMPs or other calculated prices that do not accurately reflect the application of the [rules and procedures

[6] SMD2 Filing at 4.

for the operation of the NYISO markets]."[7] The TEP provide that the "ISO shall recalculate LBMPs or other prices or payments in a manner that reflects, as closely as reasonably practicable, the LBMPs or other prices or payments that would have resulted but for the Market Implementation Error . . . , and shall substitute the recalculated LBMPs or other prices or payments for the prices that resulted from Market Implementation Error . . . ."[8] The NYISO submits that, by conforming to the TEP price correction standard, the proposed substitution of RTC prices for RTD prices for a several day period under the circumstances here, as well as occasional substitution of RTC or RTD intervals for erroneous RTD prices for which correction by re-running RTD is not feasible, does not require a waiver. If and to the extent necessary, however, the NYISO requests waiver of the RTD price determination provisions of the Services Tariff[9] and the OATT,[10] and of any other relevant tariff provisions, to permit the use of the proposed price correction methodology.

In acting under the TEP, the NYISO would not be changing a rate approved by the Commission. Rather, it would be acting to restore prices that erroneously deviated from the approved rate to prices that conform as closely as possible to the NYISO's tariffs. As the Commission has recognized, "the 'filed rate' for the NYISO energy market is not a static number but rather a formula rate calculated [using Locational Based

---

[7] Services Tariff, Attachment E § A, OATT Attachment Q § A.

[8] Services Tariff, Attachment E § C(3), OATT Attachment Q § C(3).

[9] Services Tariff §§ 2.153c, 4.4, 4.5, and Parts I and II of Attachment B to the Services Tariff.

[10] OATT §§ 1.36d.3 and Parts I and II of Attachment J to the OATT.

Marginal Prices]. To comply with the provisions of the tariff, the formula must be applied as intended using the correct inputs. Any other result is not an approved rate."[11] The NYISO's actions here are necessary to ensure that RTC and RTD results conform as closely as practicable to the outcomes dictated by the Commission-approved formula. Indeed, under the current TEP, the NYISO does not have unilateral authority to change the rate formula, or any other aspects of rates, that have been approved by the Commission, and the proposed price corrections would not have that effect.[12] To the contrary, they would correct prices to the Commission-approved rates.

With respect to Market Participant expectations, the proposed price corrections are consistent as well with the guidelines for possible SMD2 price corrections previously filed with the Commission. The NYISO's January 28, 2005, filing notifying the Commission and the Market Participants of the SMD2 effective date included guidelines for possible price corrections pursuant to the TEP.[13] A draft of the guidelines was reviewed with the Market Participants as early as mid November, 2004. As shown on Attachment I, the price correction guidelines included several different methods for the

---

[11] *NRG Power Marketing, Inc.. v. New York Independent System Operator, Inc.*, 91 FERC ¶ 61346 at 61,165 (2000).

[12] *See* Service Tariff, Attachment E, § C(4) (stating that: "In any instance in which the ISO makes price corrections, it shall, as soon as possible thereafter, address the Market Implementation Errors or Emergency System Conditions that resulted in incorrect prices. The ISO shall undertake this work in consultation and cooperation with Market Participants and jurisdictional agencies, as appropriate and as time permits, through the process described in the ISO Agreement.").

[13] *New York Independent System Operator, Inc.*, Compliance Filing, Notice of Effective Date, and Informational Notice of the New York Independent System Operator, Inc., Docket No. ER04-230-007, at 3 (Jan. 28, 2005) ("Go-Live Filing").

correction of prices, including re-running the relevant portion of the SMD2 software, or substituting prices from "a valid SMD2 solution for a previous interval" as a reasonable means of correcting prices. Accordingly, the price correction guidelines in the Go-Live Filing provided notice to the Market Participants of the potential for SMD2 implementation price corrections, and that price substitution methodologies may provide the best means for correcting prices.

To the extent that the price correction process necessarily has or will extend beyond the period for price corrections contemplated by the TEP, the NYISO requests tariff waivers to permit completion of the price correction process in accordance with the schedule discussed below.[14]

The NYISO, assisted by LECG, is completing corrections as quickly as reasonably possible, given the data, computing and manpower constraints of the price correction process described above. The process of correcting the errors other than the forecasting errors has been found to require about one day for each day in which price corrections are required. With this workload, and an allowance for possible but unanticipated complications in the corrections process, the NYISO expects that the price correction process for prices for the period from February 4 through March 7 can be completed by April 15. Corrected prices are being posted on a rolling basis as they are determined. The NYISO requests waiver of the five day timeline for price corrections in the TEP, along with any other tariff provision as may be required, to process the corrections on that schedule. As indicated above, prices corrected for the forecasting

[14] The Commission granted similar relief in *New York Independent System Operator, Inc*., 104 FERC ¶ 61,214 (2003).

errors encountered in the first three days of the SMD2 have been made available to the Market Participants, since the corrected prices are based on the previously determined RTC prices.[15]

In light of the unanticipated nature of the SMD2 errors, and given that the coming summer will be the first peak season test for the new Real-Time markets, the NYISO further requests a tariff waiver to allow up to 10 business days for correction of RTC and RTD prices in the period from March 8, 2005, through September 30, 2005. The NYISO fully expects that during this period it will be able to analyze and correct prices in far less than 10 business days. As described above, however, experience with SMD2 to date has shown that even though relatively few intervals in a day may require correction, the process of analyzing those intervals and confirming the reasons and need for corrections has proved significantly more difficult and time consuming than anticipated. In addition, the heavy summer loads will expose the SMD2 software to system conditions not previously encountered, potentially requiring new analytic techniques to determine if any apparent pricing anomalies reflect errors that require correction. As the Commission has recognized in other market implementation situations, prudence dictates some latitude for price corrections as the SMD2 faces the stresses of its first summer.[16] At the same time,

[15] Prices for February 4 must be corrected in accordance with the schedule for the ramping error corrections, since the RTC price substitution for forecasting errors extends only through the hour beginning 14:00 on February 4.

[16] *See, e.g., New England Power Pool and ISO New England, Inc.*, 87 FERC ¶ 61,055 at 61,223 (1999) (recognizing that "the new ISO markets may contain unintended design flaws," and approving measures to deal with such flaws); *and Midwest Transmission System Operator, Inc.,* 108 FERC ¶ 61,163 at P95-96 (2004) (directing the Midwest ISO to adopt price correction measures like the NYISO's TEP in connection with the implementation of the Midwest markets).

establishing an achievable price correction deadline will ultimately enhance market certainty, by avoiding the delays and uncertainty inherent in having to return to the Commission on an *ad hoc* basis for price corrections that are simply not feasible in some shorter timeframe.

The NYISO requests that waiver be granted on an expedited basis, in order to resolve any uncertainty surrounding the proposed price corrections as soon as possible. The Commission has previously granted expedited waiver requests when circumstances warranted.[17] Granting the waivers would benefit all stakeholders and advance the Commission's policy goals of price certainty and price correctness without causing significant harm to any interest.

In making this request for waiver, the NYISO respectfully submits that it has established a solid track record in dealing with price corrections. As it has gained experience, it has substantially reduced the volume of price corrections, and the time required to make them. The NYISO has shown that it takes seriously the need for price certainty, while ensuring that prices conform to its tariffs.

IV. Request for Waiver of Paper Service Requirements

The NYISO also seeks waiver of the paper service requirements described in 18 C.F.R. § 385.2010 (2004). The NYISO is electronically serving a copy of this filing on the official representative of each of its customers, on each participant in its stakeholder committees, on the New York State Public Service Commission, and on the electric

[17] *See, e.g.,* New York Independent System Operator, Inc., 107 FERC ¶ 61,292 (2004); New York Independent System Operator, Inc., 104 FERC ¶ 61,214 (2003).

utility regulatory agencies of New Jersey and Pennsylvania. In addition, the complete filing has been posted on the NYISO's website at www.nyiso.com. The NYISO will also make a paper copy available to any interested party that requests one.

Good cause exists to grant this waiver because it is urgent that the Commission be able to act quickly. Use of electronic service will get copies to all stakeholders faster than any other method. Moreover, the NYISO has now used electronic service methods a number of times, and there have been no complaints from stakeholders. Electronic service is also consistent with the Commission's notice of proposed rulemaking on electronic service methods.[18]

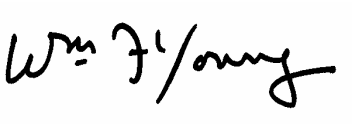
[18] *See Electronic Notification of Commission Issuances*, Notice of Proposed Rulemaking, 107 FERC ¶ 61,311 (2004).

VIII. Conclusion

WHEREFORE, for the foregoing reasons, the New York Independent System Operator, Inc., respectfully requests that the Commission grant the waivers requested herein on an expedited basis.

Respectfully submitted,

NEW YORK INDEPENDENT
SYSTEM OPERATOR, INC.



By: _____

William F. Young
Ted J. Murphy
Susan E. Dove
Hunton & Williams LLP
1900 K Street, NW
Washington, DC 20006

Counsel to the New York Independent System Operator, Inc.

March 9, 2005

cc: Daniel L. Larcamp
Anna Cochrane
Connie N. Caldwell
Michael A. Bardee
Dean Wight (via e-mail)

Attachment I

CONTINGENCY SETTLEMENT GUIDELINES FOR SETTING PRICES IN THE EVENT THAT SMD2 FAILS TO PRODUCE VALID SOLUTIONS DURING THE PARALLEL OPERATIONS PERIOD

Pursuant to the NYISO's Temporary Extraordinary Procedures ("TEP") the NYISO may recalculate LBMPs if, because of an "Emergency System Condition" or "Market Implementation Error" the NYISO could not calculate LBMPs, or the LBMPs that were calculated deviated from the LBMPs that would have been produced absent the emergency or implementation error.

These contingency settlement guidelines will direct the NYISO's efforts, pursuant to its TEP authority, to establish prices and schedules if the SMD2 (also known as RTS) software fails to produce valid solutions during the first two weeks after its implementation (the parallel operations period). SMD2 failure could be limited to simple calculation errors that are readily correctible or it could fail so significantly that the ISO is required to fall back to legacy operations and legacy pricing rules.

The scenarios below provide a set of proposed solutions for developing valid LBMPs in a variety of hypothetical situations. Unless the NYISO has fallen back and is operating the system under its tariff provisions in operation before SMD2 (the legacy system), the NYISO intends to apply all SMD2 tariff settlement rules, including the SMD2 BPCG and Day Ahead Margin Assurance calculations, provided that it has valid data to produce those calculations.

Scenario	Status of Day-Ahead Market (DAM)	Status of Real-Time Market (RTM)	Prices Based on---
Baseline	Valid SMD2 DAM Solution	Valid SMD2 RTM Solution	As Run System --No Corrections
1	Valid SMD2 DAM Solution	SMD2 RT solution capable of being corrected	RT Prices Corrected to SMD2 Rules [correction could incorporate a valid SMD2 solution for a previous interval, should it appear appropriate].
2	SMD2 DAM Solution Capable of being Corrected	Valid SMD2 RT Solution	DA Prices Corrected to SMD2 Rules
3	SMD2 DAM Solution Capable of being Corrected	SMD2 RT solution capable of being corrected	DA and RT prices Corrected to SMD2 Rules [correction could incorporate a valid SMD2 solution for a previous interval, should it appear appropriate].
4	Valid SMD2 DAM Solution	No SMD2 RT Solution	RT Prices Set to SMD2 DA Prices
5	SMD2 DAM Solution Capable of being Corrected	No SMD2 RT Solution	RT Prices Set to Corrected SMD2 DA Prices
6	No SMD2 DAM Solution	No SMD2 RT Solution	DA and RT Prices Set to Legacy Solutions, available during parallel operations