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August 23, 1999

David P. Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

New York Independent System Operator, Inc.: Market Monitoring Plan
Docket Nos. ER97-1523-010, OA97-470-009 and ER97-4234-007

Dear Mr. Boergers:

Pursuant to ordering paragraph "N" of the Commission's January 27, 1999 Order Conditionally Accepting Tariff and Market Rules, Approving Market Based Rates and Establishing Hearing and Settlement Judge Procedures ("January 27 Order"),[1] the New York Independent System Operator, Inc. ("NYISO"), in accordance with the schedule specified in several recent filings, hereby submits for filing Addenda A and B to its Market Monitoring Plan ("Plan"). Addendum A sets forth the Plan's Market Mitigation Measures ("Mitigation Measures"), and Addendum B sets forth the Plan's List of Data the NYISO May Request from Market Parties ("List of Data").

I. List of Documents Submitted

The NYISO submits an original and fourteen copies of the following:

1. This transmittal letter;
2. Addendum A (Market Mitigation Measures) and Addendum B (List of Data the NYISO May Request from Market Parties) (together, Attachment 1);
3. List of Data, Indices and Screen, submitted for the Commission's information (Attachment 2); and
4. Federal Register Notice (also enclosed is an electronic copy of the Notice in WordPerfect Format.)

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[1] *Central Hudson Gas & Electric Corp., et. al.*, 86 FERC ¶ 61,062 at 61,240 (1999).

II. Proposed Effective Date and Request for Waivers

Because the NYISO should have a market monitoring plan in place before commencing operations, the NYISO respectfully requests an effective date for the Plan with the two Addenda submitted herewith of October 12, 1999. As a practical matter, the NYISO asks the Commission to accept this filing, and the prior filing of the Plan, prior to October 12, 1999 to permit the NYISO to have a Commission order on market monitoring in hand when it announces the commencement of operations. There is good cause for waiver of the Commission's usual notice requirements in that the NYISO is moving as quickly as possible to commence operations, and to submit any materials necessary to accomplish that objective to the Commission. Moreover, because the NYISO has engaged in extensive consultations with Market Participants regarding the attached Addenda to the Plan, shortening the notice period will have no adverse effect on any Market Participant.

The NYISO also requests a waiver of any other applicable Commission requirements that are not otherwise satisfied by this filing.

III. Names and Addresses of Persons to Whom this Rate Schedule has been Mailed

A copy of this filing is being served upon all persons on the Commission's official service list(s) in Docket Nos. ER97-1523-000, OA97-470-000 and ER97-4324-000 (not consolidated) and on the respective electric utility regulatory agencies in New York, New Jersey and Pennsylvania.

IV. Description of the Market Monitoring Plan Addenda

A. Introduction

The attached Addenda to the Market Monitoring Plan are the result of extensive review and discussion of the relevant issues by the stakeholders in the New York restructuring, the staff of the NYISO, the NYISO Market Advisor, and the NYISO Board of Directors. Staff and counsel for the NYISO, along with the Market Advisor, met with representatives of the stakeholders to review drafts of proposed mitigation measures in two face-to-face meetings and two conference calls, and drafts of the List of Data were circulated prior to the two conference calls. The Addenda were also reviewed in detail by the Market Performance Committee of the NYISO Board prior to their approval by the NYISO Board at its meeting on August 17.

Set forth below is a section-by-section description of the key provisions of the Mitigation Measures and the List of Data.

B. Mitigation Measures

1. Purpose and Objectives

Section 1 specifies that any Mitigation Measures adopted by the NYISO should be designed as a means for the NYISO to mitigate the market effects of any conduct that impairs or threatens to impair the competitiveness or efficiency of any markets administered by the NYISO. At the same time, this Section also specifies that any such Mitigation Measure should minimize interference with competitive markets. The objectives of the Plan and the Mitigation Measures are to allow prices in the New York electricity markets to be determined by competitive forces in those markets to the greatest extent practicable, although Mitigation Measures must nonetheless be imposed when necessary.

2. Conduct Subject to Mitigation

Section 2.2(a) requires that two key criteria be met before any conduct can be the subject of a Mitigation Measure: (i) the conduct must be significantly inconsistent with competitive conduct; and (ii) the conduct must result, or threaten to result, in a material change in one or more prices in a market. These criteria are consistent with the Commission's rationale for authorizing market-based pricing in the January 27 Order, and the NYISO's expectation, based on the market factors cited by the Commission, that the bid-based LBMP energy markets will be workably competitive under most conditions. In order to preserve the stability and integrity of these markets, it is important to avoid the distortion of price signals and other competitive expectations that are likely to result from undue intrusion in the markets. The criteria in § 2.2(a), in combination with the directive in § 2.2(b) to use the least intrusive Mitigation Measures that will be effective, should ensure that the imposition of a Mitigation Measures does more good than harm. At the same time, the criteria recognize that if the NYISO detects conduct that significantly departs from that which would be expected in a workably competitive market, the NYISO must be empowered to impose remedies when such conduct has a material effect on prices.

Section 2.3(a) spells out the kinds of anticompetitive conduct the NYISO Market Monitoring Unit ("MMU") will monitor markets for, and mitigate when appropriate based on the criteria described above:

a) Physical withholding of an Electric Facility;

b) Economic withholding of an Electric Facility; and

c) Uneconomic production from an Electric Facility.

This list encompasses the kinds of conduct that would be expected to cause material effects on prices if exercised from a position of market power, and applies to conduct affecting any "Electric Facility," which is defined to include both generation and transmission facilities. *See* § 2.1. By including uneconomic production, the list also addresses the kinds of non-traditional market power strategies that might be employed in a transmission network, such as attempting to "underbid high cost generation in some areas of the grid in order to create transmission constraints that would confer or enhance market power of other generators in other areas." January 27 Order, 86 FERC at 61,238. Moreover, while the list is sufficiently specific to put Market Parties on notice of the kinds of conduct that, in appropriate circumstances, will be subject to Mitigation Measures, the list is couched in sufficiently general terms to encompass the range of anticompetitive tactics that inventive market participants may be able to devise in the newly competitive New York energy markets. Thus, § 2.3(a) gives the NYISO a comprehensive ability to mitigate market power abuses.

Section 2.3(b) provides that Mitigation Measures may also be imposed to mitigate any adverse market effects of a rule, standard, procedure or design feature of a market administered by the NYISO. Mitigation Measures may be imposed if such operating principles of a market enable a market participant to manipulate market prices or otherwise impair the efficient operation of the market, wholly apart from considerations of market power. This Section recognizes, however, that the ultimate remedy for such a problem should be an appropriate revision of the rule, standard, procedure or design feature that is subject to abuse. Thus, this Section specifies that a Mitigation Measure should be imposed as an interim measure pending such revision. Any revision to a rule, standard, procedure or design feature would, of course, need to be put in place in accordance with any applicable approval and filing procedures, and accompanied by any necessary software or other operational improvements.

Section 2.3(c) recognizes that to the extent electric markets in New York are part of larger, regional markets encompassing surrounding areas, market participants that take advantage of more favorable market opportunities outside of New York are simply acting in a rational economic manner. Accordingly, they should not on that basis alone be deemed to have withheld a product or service from a New York market, or otherwise to have acted in a manner inconsistent with competition. Finally, Section 2.3(d) provides that the NYISO may seek to amend the list of categories of conduct that may warrant mitigation set forth in Section 2.3(a) as experience with market monitoring may dictate.

3. Criteria for Imposing Mitigation Measures

As recognized in Section 3.1 of the Mitigation Measures, the Market Monitoring Plan obligates the NYISO to develop indices and screens for monitoring markets in order to detect conduct that may warrant the imposition of a Mitigation Measure. An initial list of indices and screens, and of data to be monitored, is attached hereto for informational purposes as Attachment 2. This list of Data, Indices and Screens has been thoroughly reviewed by the market participants, and will be made available to market participants on an on-going basis as specified in Section 7.1 of the Market Monitoring Plan. Section 3.1 of the Mitigation Measures also recognizes that in applying the indices and screens, the key task of the NYISO's Market Monitoring Unit, assisted by the Market Advisor, will be to distinguish any substantial departures from competitive conduct from the natural variations in bidding and other actions that are expected features of workably competitive markets.

Through the application of well-established economic principles and through experience in applying the indices and screens, the NYISO will develop standards, criteria and thresholds to identify conduct that warrants further investigation. As specified in the Plan, however, these standards, criteria and thresholds will not be disclosed to the market participants, in order to avoid encouraging behavior that seeks to come close to but just avoids the threshold levels. It is important to note that any such standard, criteria or threshold would not determine the need to impose a mitigation measure, but would be a means for identifying conduct or other situations that appear to warrant further investigation. Thus, just as the IRS does not reveal the standards it uses to identify tax returns for review or audit, it is appropriate that these means not be disclosed. The general requirements for the imposition of Mitigation Measures are those set forth in Addendum A and discussed above and below.

If conduct is identified as warranting further investigation, the normal procedure will be for the NYISO to request an explanation of the conduct from the market participant in question, as specified in Section 3.2. It may be, for example, that a sharp increase in bids for a particular generating unit is a reflection of a sharp increase in fuel costs for that unit, rather than an effort to exploit a position of market power. If the NYISO, in consideration of the relevant data and information at its disposal, is satisfied that a market participant's explanation of its behavior indicates that no Mitigation Measures are warranted, then no further action will be taken. Under the Plan, as cross-referenced in Section 3.2, the NYISO would not be obligated to consult with a market participant about its market conduct if time does not permit, or if the conduct is part of a pattern for which consultation would be little more than a formality.

Consistent with the standards set forth in Section 2.2, Section 3.3 provides that Mitigation Measures will not be applied unless the conduct at issue has caused or threatens to cause a material change in one or more prices in a monitored market, considering both the magnitude and duration of the price change. As soon as feasible, the primary tool for this assessment will be sensitivity analyses made using the NYISO's Security Constrained Unit Commitment and Security Constrained Dispatch computer models. These are the same computer models used by the NYISO to commit and dispatch generating units and produce day-ahead and real-time prices. Thus, these models take into account all of the flow and other characteristics of the generation and transmission system in the New York control area. As a result, sensitivity analyses done with these models would permit the flow, pricing and other system impacts of *pro forma* changes in generation unit outputs to be comprehensively assessed in both the day-ahead and real-time markets.

Under the attached proposal, however, the NYISO would not use these computer models to modify or revise the LBMPs actually paid by or to market participants after the fact as part of a Mitigation Measure. Unless the need for such a measure has become clearly necessary, an ability to impose after-the-fact modifications of prices would likely subject the markets administered by the NYISO to a substantial and potentially harmful degree of uncertainty and instability. Accordingly, the bid restrictions or default bids discussed below would be applied on a prospective basis, once the analysis described above has shown that to be necessary.

4. Mitigation Measures

Conduct that fits the categories specified in Section 2 and that meets the criteria specified in Section 3 will result in the imposition of one of the Mitigation Measures specified in Section 4, as described below.

a) Bid Restrictions

A bid restriction would limit the bidding options of a market participant in a manner designed to eliminate or severely restrict the ability of that market participant to exploit temporary market power. Under Section 4.2.1, several different types of bid restrictions may be imposed: (i) reduced bid flexibility, that is, limiting the frequency or size of changes that can be made in bids over some specified period; (ii) bid blocking restrictions, that is, limiting a facility to a single bid for all of its output, rather than being able to submit different bids for different blocks of output from the facility; and (iii) time restrictions, that is, limiting a facility to a single, unchanging bid for a specified period of time (this is a more exacting form of reduced bid flexibility). In each instance, a bid restriction would be intended to ensure that the bids from a facility during periods when it does not face workable competition do not depart significantly from its bids when it is required by market conditions to bid competitively. *See* Section 4.2.2. In many circumstances, this should be sufficient to offset any attempt to withhold an Electric Facility from a market in order to raise prices.

b) Obligation to Pay for Operating Reserves

In cases of physical withholding of a facility, a bid restriction would not be practical, since by definition the facility would not be submitting any bids to be restricted. Thus, under Section 4.3, in cases of physical withholding the NYISO would be authorized to impose a penalty on such facilities, for the purpose of deterring—and sufficient to deter—the withholding behavior as may be appropriate. Section 4.3 provides that any revenues from such penalties would be used to off-set the costs for operating reserves of the other market participants.

c) Default Bids

As with bid restrictions, default bids will be designed to ensure that the bids submitted by market participants do not vary significantly between periods when a market participant faces workable competition as compared to periods when it does not, unless the difference is clearly attributable to legitimate market conditions. *See* Section 4.4.1. A default bid would be substituted for the bid otherwise submitted for a facility, and may specify maximum or minimum values for one or more, or all, of the components of a bid. *See* Section 4.4.2(a). Default bids will be based on a reference price, as discussed below. When first imposed, a default bid will be in effect for only one day, with the expectation that the imposition of the default bid would cause the targeted market participant to refrain from the underlying physical or economic withholding. If not, a default bid can be reimposed for whatever period may be necessary to mitigate the market effects of the underlying conduct. Because a default bid would be intended to restore, or at least closely mimic, conditions of workable competition, a facility subject to a default bid would be paid the LBMP or other market clearing price applicable to the facility, as would be the case if the facility had submitted a competitive bid. *See* Section 4.4.2(c).

Sections 4.4.3(a)(i) and (ii) specify methods for calculating reference prices that are intended to yield default bids comparable to the bids submitted during competitive conditions for the facility at issue. This would be done by calculating a mean or median, as may be appropriate, of the facility's bids during a specified period when the facility faced effective competition. Affording the NYISO a choice between the mean or the median of prior period bids, as in Section 4.4.3(a)(i), should deter strategic bidding during the reference period in an effort to affect the level of the reference price. As a fallback in case these primary methods do not provide a basis to determine an appropriate reference price, the NYISO may set a reference price through negotiation with the market participant. Section 4.4.3(a)(iii). If none of the methods for determining a reference price specified in Section 4.4.3(a)(i) - (iii) are available, the NYISO may determine an appropriate reference price based on the estimated costs of the facility in question, or based on an average of competitive bids from one or more similar facilities.[2]

d) Load Bid Measures

Section 4.5 sets forth a Mitigation Measure of the type provided for in Section 2.3(b), that is, a measure that may be imposed as an interim measure in order to mitigate the market effects of conduct that takes advantage of a rule, standard, procedure or design feature of a market administered by the NYISO in a way that significantly distorts prices as compared to the outcome that would be expected under workable competition. Section 4.5 arises from the fact that as initially implemented, the applicable market rules permit loads to bid all or part of their requirements in either of the day-ahead or the real-time LBMP markets, while other market participants do not have a similar degree of flexibility. In particular, generators subject to an installed capacity ("ICAP") obligation are required to submit bids for all of their output from ICAP capacity in the day-ahead market. This dichotomy has prompted a concern that loads may only bid part of their requirements in the day-ahead market, with the goal of driving down prices in the day-ahead market and thereby achieving lower prices overall for their requirements. *See* Section 4.5.1.

Withholding load from the day-ahead market may result in a greater divergence between day-ahead and real-time prices than would be expected under workably competitive conditions if a sufficient degree of arbitrage between the two markets is not possible. To the extent that, because of practical implementation considerations, the initial market rules limit the flexibility of some market participants to bid in both markets, sufficient arbitrage might not occur and some level of unwarranted price differential between the two markets may persist.

There is apparent consensus among the market participants that the NYISO should work on implementing changes to the market rules and procedures to accommodate maximum bidding flexibility between the day-ahead and real-time markets for all market participants. Until such revised rules and procedures can be implemented, however, Section 4.5 provides an means to mitigate any material market effects of withholding load from the day-ahead market, should that occur. *See* Section 4.5.1.

As provided by Section 4.5.2, the NYISO will monitor day-ahead and real-time LBMPs, by load zone, to determine if there are persistent differences between them that would not be expected under conditions of workable competition. The NYISO will also monitor bidding practices in order to identify any sustained pattern of under-bidding. The specified load bidding Mitigation Measure will only be applied if the NYISO determines that three conditions are met: (i) the existence of an unwarranted differential between day-ahead and real-time LBMPs, as compared to expectations under conditions of workable competition, (ii) one or more load serving entities are meeting a substantial portion of their load requirements in the real-time as opposed to

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[2] A comparable set of bid measures was approved for use by the PJM ISO by the Commission's approval of market-based energy prices in PJM. *See PJM Interconnection, L.L.C.*, 86 FERC ¶61,248 (1999), *and* Section 6.4.2 of Schedule 1 of the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C.

the day-ahead market, and (iii) this load bidding practice has contributed to the unwarranted divergence in prices. Any such Mitigation Measure would be rescinded once any one or more of these conditions does not apply.

The load bidding Mitigation Measure is described in Section 4.5.3. The NYISO would first require a load serving entity engaging in load withholding to bid all of its expected load in the day-ahead market, subject to a specified tolerance to allow for load forecasting uncertainties. Any purchases in the real-time market in excess of this tolerance would be settled at a specified premium over the otherwise applicable LBMP. Any revenues from such a premium would be rebated to market participants that scheduled energy for delivery to load within New York in the day-ahead market for the day in which the revenues were collected, in recognition of the facts that (i) the prices for energy in the day-ahead market received by such market participants would have been artificially suppressed, and (ii) such market participants generally would not have a full ability to take advantage of price differences between the day-ahead and real-time markets by their bids. The tolerance level and price premium would be established by the NYISO at levels sufficient to remedy the effects of identified under-bidding, while not penalizing loads for bidding practices attributable to good faith errors in load forecasts or other legitimate causes.

e) Capacity Market Mitigation Measures

In its July 29, 1999 Order Denying in Part and Granting in Part Rehearing and Clarification and Conditionally Accepting Compliance Filing in this docket,[3] the Commission directed the NYISO to file "a detailed proposal for an installed capacity auction market," such a proposal to "include, but not be limited to, bidding rules and procedures, procedures for determining market clearing prices, and market power mitigation measures." Detailed rules and procedures for bidding and the determination of market clearing prices were submitted to the Commission on August 10, 1999. Section 4.6 of the instant filing addresses the need for any capacity market mitigation measures.

In connection with the preparation of its capacity market filing and this Mitigation Measures filing, the NYISO requested the New York Market Advisor to advise it on the near-term requirements for capacity market mitigation measures, over and above those measures that have already been approved by the Commission. The Market Advisor has advised the NYISO that additional mitigation measures should not be required for the initial capacity auction to be conducted by the NYISO. This determination is based on the amount and ownership of the uncommitted capacity available to participate in the initial capacity auction. In particular, much of the otherwise uncommitted capacity held by entities other than load-serving entities is committed by contract in the near term to provide installed capability in New York in connection with the generation divestiture programs of the major New York utilities. In addition, the excess capacity available to be sold in the New York installed capacity market over and above the total installed capability responsibilities of the load-serving entities will serve to reduce the likelihood that an existing market participant would be able to raise capacity prices by withholding its uncommitted capacity from the market. This conclusion is consistent with the current experience with the

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3 *Central Hudson Gas & Electric Corp., et. al.,* 88 FERC ¶ 61,138, Slip Op. at 31 (1999)

capacity markets administered by the PJM and New England ISOs, that is, the ISOs for the geographic regions to the north and south of New York. Neither ISO has apparently implemented mitigation measures for installed capacity markets.

Consistent with the determination of the New York Market Advisor, Section 4.6 of the Mitigation Measures filing does not propose specific Mitigation Measures for New York capacity markets. The NYISO will, however, continue to monitor the New York markets for capacity, with the continued assistance of the Market Advisor. Should the NYISO determine that market conditions have changed such that physical or economic withholding of capacity could result in a material change in the price for capacity in all or some portion of New York, the NYISO will undertake to determine, in consultation with the market participants and other interested parties, whether and to what extent capacity market Mitigation Measures may be needed. If it determines that such measures are needed, the NYISO will propose an appropriate revision to the Mitigation Measures Addendum to the Plan to implement such measures prior to conducting any capacity auction for which such measure may be necessary.

5. Other Mitigation Measures

Section 5 of the Mitigation Measures filing recognizes the obligation of the NYISO to implement (i) certain mitigation measures that the Commission has previously approved for certain generating units in New York City, and (ii) such other mitigation measures for which the NYISO may be made responsible by order of the Commission.

6. Dispute Resolution

Section 6 of the Mitigation Measures filing provides that the dispute resolution procedures of the New York Independent System Operator Agreement will apply to any disputes about whether a Mitigation Measure was properly applied or withheld. Section 6 does not provide a right for a market participant to stay the implementation of a Mitigation Measure pending the outcome of a dispute resolution process.

7. Effective Date

Section 7 specifies that the Mitigation Measures shall be effective when approved by the Commission, or as specified in the Temporary Emergency Procedures previously filed with the Commission by the NYISO. As noted above, the NYISO requests that the Mitigation Measures, along with the Market Monitoring Plan, be permitted to go into effect by the scheduled October 12 start date for the markets to be administered by the NYISO.

C. List of Data

Also submitted herewith, as Addendum B to the Market Monitoring Plan, is the List of Data the NYISO May Request from Market Parties. This is the list specified by Section 6.2.2. of the Plan, which states, in pertinent part:

> (a) A party receiving an information request from the Market Monitoring Unit shall furnish all information, in the requested form or format, that

is: (i) specified on a list maintained by the Market Monitoring Unit of categories of data or information that it may routinely request from a Market Party; or (ii) reasonably necessary to achieve the purposes or objectives of this Plan, not readily available from some other source that is more convenient, less burdensome and less expensive, and not subject to an attorney-client or other generally recognized evidentiary doctrine of confidentiality or privilege.

(b) The list specified above of categories data or information that may be routinely requested shall be limited to data or information the routine provision of which would not be unduly burdensome or expensive, and which has been reasonably determined by the Monitoring Unit, in consultation with the New York ISO Market Advisor, to be likely to be relevant to the purposes and objectives of this Plan. The Market Monitoring Unit shall notify the Market Parties and other interested parties, and provide an opportunity for comment, prior to creating such list or to adding or deleting any categories of data or information to or from the list, and shall make the list available to Market Parties and other interested parties through the NY ISO web site or other appropriate means. The list shall be submitted by the NY ISO to the FERC for approval as an addendum to this Plan.

(c) A party receiving a request for data or information specified on the foregoing list shall promptly provide it to the Market Monitoring Unit, and may not contest the right of the Market Monitoring Unit to obtain such data or information except to the extent that the party has a good faith basis to assert that the data or information is not included in any of the categories on the list.

As can be seen from the foregoing provisions of the Plan, the list in Addendum B is intended to facilitate the ability of the NYISO to gather certain data and information from market participants without such requests being delayed by dilatory dispute resolution proceedings. The NYISO believes the list in the attached Addendum B has been carefully tailored to the purposes specified in the Plan, and notes in this connection that it did not receive any significant comments on the content of the List of Data when it was circulated widely to the participants in the New York restructuring. Any confidential information on the List of Data would of course be subject to the confidentiality provisions of the Plan.

In preparing this list, the NYISO was cognizant of the potential burden on market participants of responding to requests for information, and endeavored to balance carefully its need for data and information against such burden. To this end, the list focuses on data and information that should be maintained in the ordinary course of the market participants' operations, and that should be relatively easy to provide upon request to the NYISO. In this connection, it is important to note that this list is an Addendum to the Market Monitoring Plan. Consequently, any changes to this list must be submitted to the Commission for approval as a revision of the Plan. Thus, the NYISO does not have a unilateral right to impose obligations on the market participants to produce data or information simply by adding categories to the list. Moreover, under Section 6.2.1 of the Plan, any request for data or information "shall be accompanied by an explanation of the need for such data or other information, a specification of the form or format in which the data is to be produced, and an acknowledgment of the obligation of the NY ISO to maintain the confidentiality of data or information appropriately designated as Protected Information by the party producing it." Under the Plan, any request for data or information other than that specified on the List of Data must be limited to data or information "reasonably necessary to achieve the purposes or objectives of this Plan, not readily available from some other source that is more convenient, less burdensome and less expensive, and not subject to an attorney-client or other generally recognized evidentiary doctrine of confidentiality or privilege," and any such request would be subject to the dispute resolution procedures of the Plan. Plan § 6.2.2(a). Thus, the Plan proposes a balanced approach that appropriately takes into account both the NYISO's need for data and information to carry out its market monitoring functions, and the desirability of not imposing undue production requirements on the market participants.

V. Conclusion

WHEREFORE, the NYISO respectfully asks that the Commission issue an order approving the NYISO's Mitigation Measures.

Respectfully submitted,

By: ________________________

Counsel

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Attachment 1

NYISO Market Monitoring Plan

Addendum A

<u>Market Mitigation Measures</u>

AUGUST 23, 1999

VI. <u>Purpose and objectives</u>

These NYISO market mitigation measures ("Mitigation Measures") are intended to provide the means for the NYISO to mitigate the market effects of any conduct that impairs or threatens to impair competitive outcomes in or the economic efficiency of any of the New York Electric Markets administered by the NYISO, while avoiding any distortion of competitive price signals. Consistent with the provisions of the Plan, these Mitigation Measures are intended to minimize interference with open and competitive markets, and thus to permit, to the maximum extent practicable, price levels to be determined by competitive forces under the market conditions prevailing from time to time.

VII. <u>conduct warranting mitigation</u>

A. Conduct Subject to Mitigation

Mitigation Measures may be applied: (i) to the bidding, scheduling or operation of an "Electric Facility," defined for purposes of this Addendum to the Plan as an electric generation resource or transmission facility; or (ii) as specified in § C(b)).

B. Conditions for the Imposition of Mitigation Measures

a) To achieve the foregoing purpose and objectives, Mitigation Measures should only be imposed in response to conduct that substantially distorts or impairs, or threatens substantially to distort or impair, the competitiveness of any of the New York Electric Markets administered by the NYISO. Accordingly, the NYISO will seek to impose Mitigation Measures only as a result of conduct that is:

(1) significantly inconsistent with competitive conduct; and

(2) results, or threatens to result, in a material change in one or more prices in a New York Electric Market.

b) If the NYISO determines, in accordance with Section 11.1 and other applicable provisions of the Plan, that the imposition of a Mitigation Measure is warranted, the NYISO will seek to impose the least intrusive Mitigation Measure or combination of Mitigation Measures that it believes will be effective in mitigating the adverse market effects of the conduct giving rise to the need for the Mitigation Measure.

C. Categories of Conduct that May Warrant Mitigation

a) The following categories of conduct, whether exhibited by a single firm or by multiple firms acting in concert, would be expected to cause a material effect on prices in a New York Electric Market only if exercised from a position of market power. Accordingly, the NYISO will monitor the New York Electric Markets for the following categories of conduct, and may impose appropriate Mitigation Measures if such conduct is detected and the other applicable conditions for the imposition of Mitigation Measures are met:

(1) *Physical withholding of an Electric Facility*, that is, not offering to sell, or not seeking to schedule, the output of or services provided by an Electric Facility capable of serving a New York Electric Market. Such withholding may include, but not be limited to, (i) falsely declaring that an Electric Facility has been forced out of service or otherwise become unavailable, or (ii) refusing to offer bids or schedules for an Electric Facility when it would be in the economic interest, absent market power, of the withholding entity to do so.

(2) *Economic withholding of an Electric Facility*, that is, submitting bids for an Electric Facility that are unjustifiably high so that (i) the Electric Facility is not or will not be dispatched or scheduled, or (ii) the bids will set or otherwise affect a market clearing price.

(3) *Uneconomic production from an Electric Facility*, that is, increasing the output of an Electric Facility to levels that would otherwise be uneconomic in order to cause, and obtain benefits from, a transmission constraint.

b) Mitigation Measures may also be imposed to mitigate the market effects of a rule, standard, procedure or design feature of a New York Electric Market that allows a Market Party to manipulate market prices or otherwise impair the efficient operation of that market, pending the revision of such rule, standard, procedure or design feature to preclude such manipulation of prices or impairment of efficiency.

c) Taking advantage of opportunities to sell at a higher price or buy at a lower price in a market other than a New York Electric Market shall not be deemed a form of withholding or otherwise inconsistent with competitive conduct.

d) The NYISO will monitor New York Electric Markets for other categories of conduct, whether exhibited by a single firm or by multiple firms acting in concert, that have material effects on prices in a New York Electric Market. The NYISO will seek to amend the foregoing list as may be appropriate, in accordance with the procedures and requirements for amending the Plan, to include any such conduct that substantially distorts or impairs, or threatens substantially to distort or impair, the competitiveness of any of the New York Electric Markets administered by the NYISO.

VIII. criteria for imposing mitigation measures

A. Identification of Conduct Inconsistent with Competition

Conduct that falls into one of the categories described in Section C above shall be detected through the use of indices and screens developed, adopted and made available as specified in the Plan, or through such further or different review or evaluation of pertinent data or information as permitted by the Plan. Natural variances in bids expected in workably competitive markets shall be differentiated from the substantial departures from competitive conduct indicative of an absence of workable competition by means of standards, criteria or thresholds developed by the NYISO but made publicly available only as specified by the Plan.

B. Consultation with a Market Party

If through the application of an appropriate index or screen or other monitoring of market conditions, conduct is identified that (i) exceeds an applicable standard, criteria or threshold, and (ii) has a material effect, as specified below, on one or more prices in a New York Electric Market administered by the NYISO, the Market Monitoring Unit shall, as and to the extent specified in the Plan, contact the Market Party engaging in the identified conduct to request an explanation of the conduct. If the explanation indicates to the satisfaction of the Market Monitoring Unit, in consultation as may be appropriate with the Market Advisor, that the questioned conduct is in fact consistent with competitive behavior, no further action will be taken.

C. Material Price Effects

a) In order to avoid the imposition of unwarranted costs or other unintended adverse consequences on one or more Market Parties, Mitigation Measures shall not be imposed unless conduct identified as specified above causes or threatens to cause a material change in one or more prices in a New York Electric Market administered by the NYISO. A determination of materiality shall be based on both the magnitude and duration of an actual or expected price effect.

b) When it has the capability to do so, the Market Monitoring Unit, in consultation with the Market Advisor, shall determine the price effects of questioned conduct through the use of sensitivity analyses performed using the NYISO's Security Constrained Unit Commitment computer model ("SCUC") or the NYISO's Security Constrained Dispatch computer model ("SCD"), and such other computer modeling or analytic methods as the Market Monitoring Unit or the Market Advisor shall deem appropriate. Pending development of the capability to use the SCUC or SCD, the Market Monitoring Unit, in consultation with the Market Advisor, shall determine the price effects of questioned conduct using the best available data and such models and methods as they shall deem appropriate.

IX. <u>Mitigation measures</u>

A. Imposition of Mitigation Measures

If the NYISO identifies, as specified above, conduct in one of the categories described above that has or threatens to have material price effects in a New York Electric Market administered by the NYISO, the NYISO may impose one or more of the Mitigation Measures specified below as and to the minimum extent necessary to mitigate such price effects.

B. Bid Restriction

1. Types of Bid Restrictions

One or more of the following types of bid restrictions may be imposed by the NYISO, as may be appropriate, in light of the relevant facts and circumstances, to mitigate the market effects of conduct giving rise to a need for a mitigation measure:

(i) *Reduced flexibility*: An Electric Facility may be limited in the frequency or size of changes in bids that may be made over a specified period of time.

(ii) *Bid blocking*: An Electric Facility may be required to submit a single bid, rather than multiple bids for blocks of output from the unit.

(iii) *Time restriction*: An Electric Facility may be required to make a single bid effective for a specified period.

2. Implementation

Restrictions may be placed on one or more components of a bid (i) for an Electric Facility, or (ii) for one or more blocks of output from or service by an Electric Facility. Bid components not restricted may be changed as the bidder deems appropriate. The NYISO shall seek to structure and impose bid restrictions with the objective of increasing the cost of economic withholding by compelling the bids from an Electric Facility to be similar in those hours in which the Electric Facility does not face workable competition as compared to those hours when it does.

C. Obligation to Pay for Operating Reserves

If the NYISO determines that (i) a Market Party has engaged in the physical withholding of an Electric Facility, and (ii) such withholding has caused a material increase in one or more prices in a New York Electric Market administered by the NYISO, the NYISO may impose a financial obligation on such withholding Market Party equal to a share of operating reserve costs proportional to the extent of the withholding of the Electric Facility. Such obligation shall remain in effect for a period of time reasonably deemed by the NYISO to be sufficient to deter future withholding. If such an obligation is imposed, the charges for operating reserves to the other entities responsible for bearing such costs shall be proportionately reduced.

D. Default Bid

1. Purpose

A default bid shall be designed to cause a Market Party to bid as if it faced workable competition during a period when (i) the Market Party does not face workable competition, and (b) has responded to such condition by engaging in the physical or economic withholding of an Electric Facility. In designing and implementing default bids, the NYISO shall seek to avoid causing an Electric Facility to bid below its marginal cost.

2. Implementation

(a) If the foregoing conditions are met, the NYISO may substitute a default bid for a bid submitted for an Electric Facility. The default bid shall establish a maximum or minimum value for one or more components of the submitted bid, based on a reference price for that component determined as specified below.

(b) When a default bid is imposed on an Electric Facility or a particular block of output from or service by an Electric Facility for the first time in a calendar year, the measure shall be imposed for no longer than one day. If the reimposition of a default bid is subsequently determined to be necessary, a default bid may be imposed for such longer period as may be appropriate to mitigate the market effects of the underlying conduct.

(c) An Electric Facility subject to a default bid shall be paid the LBMP or other market clearing price applicable to the output from the facility. Accordingly, a default bid shall not limit the price that a facility may receive unless the default bid determines the LBMP or other market clearing price applicable to that facility.

3. Reference Prices

(a) A reference price for a default bid shall be calculated on the basis of the most appropriate method specified below, as determined by the NYISO:

(i) The lower of the mean or the median of the Electric Facility's bids or bid components over the previous 90 days for similar hours or load levels, adjusted for changes in fuel prices, or such mean or median for such other period as deemed by the NYISO to yield a closer approximation of the likely bid or bid component from the Electric Facility during workably competitive conditions;

(ii) The mean of the LBMP at the unit's location during the lowest-priced 25 percent of the hours that the unit was dispatched over the previous 90 days, adjusted for changes in fuel prices, or such mean for such other period as deemed by the NYISO to yield a closer approximation of the likely bid or bid component from the Electric Facility during workably competitive conditions; or

(iii) A level negotiated with the Market Party submitting the bid or bids at issue.

(b) If sufficient data does not exist to calculate a reference price on the basis of either of the first two methods specified above and the NYISO determines that an appropriate reference price cannot be negotiated with the Market Party that would be subject to a default bid, the NYISO shall determine a reference price that approximates, to the extent practicable, the bid or bid component that would be expected from the Electric Facility during workably competitive conditions, as determined on the basis of (i) the estimated costs of the Electric Facility, taking into account appropriate input from the Market Party, or (ii) an appropriate average of competitive bids of one or more similar Electric Facilities.

E. Load Bid Measures

1. Purpose

As initially implemented NYISO market rules allow loads to choose to purchase power in either the Day-Ahead Market or in the Real-Time Market, but provide other Market Parties less flexibility in opting to sell their output in the Real-Time Market. As a result of this and other design features, certain bidding practices may cause Day-Ahead LBMPs not to achieve the degree of convergence with Real-Time LBMPs that would be expected in a workably competitive market. A temporary mitigation measure is specified below as an interim remedy if conditions warrant action by the NYISO until such time as the NYISO develops and implements an effective long-term remedy, if needed.

2. Implementation

(a) Day-Ahead LBMPs and Real-Time LBMPs in each load zone shall be monitored to determine whether there is a persistent hourly deviation between them in any zone that would not be expected in a workably competitive market.

(b) The NYISO shall compute the average hourly deviation between day-ahead and real-time zone prices, measured as: $(\text{Zone Price}_{\text{real time}} / \text{Zone Price}_{\text{day ahead}}) - 1$. The average hourly deviation shall be computed over a rolling eight week period or such other period determined by the NYISO to be appropriate to achieve the purpose of this mitigation measure.

(c) The NYISO shall also estimate and monitor the average percentage of each Load Serving Entity's load scheduled in the Day-Ahead Market, using a methodology intended to identify a sustained pattern of under-bidding as accurately as the NYISO deems practicable. The average percentage will be computed over a specified time period determined by the NYISO to be appropriate to achieve the purpose of this mitigation measure.

(d) If the NYISO determines that (i) the relationship between zonal LBMPs in a zone in the Day-Ahead Market and the Real-Time Market is not what would be expected under conditions of workable competition, (ii) one or more Load Serving Entities have been meeting a substantial portion of their loads with purchases in the Real-Time Market, and (iii) that this practice has contributed to an unwarranted divergence of LBMP between the two markets, then the following mitigation measure may be imposed. Any such measure shall be rescinded upon a determination by the NYISO that any one or more of the foregoing conditions is not met.

3. Description of the Measure

(a) The NYISO may require a Load Serving Entity engaging in the purchasing practice described above to purchase or schedule all of its expected power requirements in the Day-Ahead Market. A Load Serving Entity subject to this requirement may purchase up to a specified portion of it actual load requirements (the “Allowance Level”) in the Real-Time Market without penalty, as determined by the NYISO to be appropriate in recognition of the uncertainty of load forecasting.

(b) Effective with the imposition of the foregoing requirement, all purchases in the Real-Time Market in excess of this Allowance Level (the “Penalty Level”) shall be settled at a specified premium over the applicable zone LBMP. Revenues from such premiums, if any, shall be rebated on a *pro rata* basis to the Market Parties that scheduled energy for delivery to load within New York in the Day-Ahead Market for the day in which the revenues were collected.

(c) The Allowance Level and the Penalty Level shall be established by the NYISO at levels deemed effective and appropriate to mitigate the market effects described in this Section E. In addition, the Penalty Level payments shall be waived in any hour in which the Allowance Level is exceeded because of unexpected system conditions.

F. Capacity Market Mitigation Measures

If and to the extent that sufficient capacity is not either (i) under a contractual obligation to be available to serve load in New York or (ii) subject to a price cap or other market power mitigation measure approved by the FERC, and if physical or economic withholding of capacity would be likely to result in a material change in the price for capacity in all or some portion of New York, the NYISO, in consideration of the comments of the Market Parties and other interested parties, shall amend this Addendum, in accordance with the procedures and requirements for amending the Plan, to implement appropriate mitigation measures for capacity markets.

X. Other mitigation measures

a) In addition to any mitigation measures specified above, the NYISO shall administer, and apply when appropriate in accordance with their terms, the mitigation measures for Arthur Kill Units 2 and 3, the Arthur Kill Gas Turbine, the Astoria Gas Turbines, Ravenswood Units 1, 2 and 3, the Ravenswood Gas Turbines, Astoria Units 3, 4, and 5, Waterside Units 6, 8, and 9, East River Units 6 and 7, the Gowanus Gas Turbines and the Narrows Gas Turbines, as approved by the FERC in Docket No. ER98-3169-000 or any successor docket.

b) In addition to any mitigation measures specified above, the NYISO shall administer, and apply when appropriate in accordance with their terms, such other mitigation measures as it may be directed to implement by order of the FERC.

XI. Dispute resolution

If a Market Party has reasonable grounds to believe that it has been adversely affected because a Mitigation Measure has been improperly applied or withheld, it may seek a determination in accordance with the dispute resolution provisions of the New York Independent System Operator Agreement whether, under the standards and procedures specified above and in the Plan, the imposition of a Mitigation Measure was or would have been appropriate. In no event, however, shall the NYISO be liable to a Market Party or any other person or entity for money damages or any other remedy or relief except and to the extent specified in the Plan.

XII. Effective Date

These Mitigation Measures shall be effective as of the date they are approved by the FERC, or as specified in any Temporary Extraordinary Procedures approved by FERC for implementation coincident with the initiation of the New York Electric Markets administered by the NYISO

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NYISO Market Monitoring Plan

Addendum B

List of Data the NYISO May Request from Market Parties

AUGUST __, 1999

The following data or information may be obtained by the NYISO from Market Parties in accordance with § 6.2.2 of the Market Monitoring Plan. Market Parties shall retain the following categories of data or information for at least two years, or such other period specified in any applicable data or information retention policy issued by the NYISO.

1. Production costs - Data or information relating to the costs of operating a specified Electric Facility (for generating units such data or information shall include, but not be limited to, heat rates, start-up fuel requirements, fuel purchase costs, and operating and maintenance expenses).

2. Opportunity costs - Data or information relating to a claim of relatively high opportunity costs, including, but not limited to, contracts or price quotes.

3. Logs - Data or information relating to the operating status of an Electric Facility, including, for generating units, generator logs showing the generating status of a specified unit. Such data or information shall include, but not be limited to, any information relating to the validity of a claimed forced outage or derating of a generating unit or other Electric Facility.

Attachment 2

NEW YORK ISO MARKET MONITORING

DATA, INDICES, AND SCREENS

August 23, 1999

The following data, indices and screens will monitored to identify potential problems with the market rules or potential market power concerns that need to be investigated further. The list of data include primarily time-series that track either the behavior of market participants or market outcomes. The list of indices in the following section are designed to identify potential competitive concerns that warrant further investigation or mitigation.

I. Data to be Monitored

A. Energy Market

1. Day-ahead energy market bids/bilateral schedules
   - (a) Variable component (including incremental/decremental bids from bilaterals)
   - (b) Start-up cost component and other commitment parameters (hours off-line, minimum run-time, minimum down-time, notification, max stops)
   - (c) Other generator specifications (e.g., changes to maximum operating limits, minimum generation, response rates, penalty and power factors)
   - (d) Percent of the total unit DMNC and/or Seasonal Maximum Operating Limit that was bid or scheduled in the day-ahead market
   - (e) Total day-ahead energy bids
   - (f) Total amount of energy scheduled bilaterally
   - (g) Day-ahead ISO forecast of hourly total load
   - (h) Day-ahead participants' forecast of hourly total load
   - (i) Day-ahead total load bid by participant

(j) Day-ahead total of load bids for the market

2. Hour-ahead energy market bids
   (a) Variable component (including incremental/decremental bids from bilaterals)
   (b) Percent of the total unit DMNC and/or Seasonal Maximum Operating Limit that was bid or scheduled in the hour-ahead market

3. Location-Based Marginal Prices
   (a) Day-ahead LBMP at each bus
   (b) Hour-ahead LBMP at each bus
   (c) Real-Time (five minute) LBMP at each bus
   (d) Day-ahead price for each load zone
   (e) Real-time price for each load zone

4. Transmission System Congestion
   (a) Total system-wide congestion (total congestion revenue collected by the ISO)
   (b) Congestion component of each day-ahead bus LBMP
   (c) Congestion component of each real-time bus LBMP
   (d) Scheduled net import and exports between zones or areas within New York
   (e) Actual net import and exports between zones or areas within New York

5. Dispatch and load levels
   (a) Hourly dispatch level for each unit
   (b) Hourly total dispatch level by owner
   (c) Hourly total dispatch level for the NY market
   (d) Hourly load by LSE
   (e) Hourly total market load

(f) Unit dispatch deviations from ISO signal

B. Ancillary Service Markets

1. Spinning reserve market
   - (a) Day-ahead availability bid (MW, $/MW)
   - (b) Hour-ahead availability bid (MW, $/MW)
   - (c) Day-ahead Market clearing spinning reserve price
   - (d) Real-time Market clearing spinning reserve price
   - (e) Amount of spinning reserve traded at day-ahead prices
   - (f) Amount of spinning reserve traded at real-time prices

2. 10 Minute non-spinning reserve market
   - (a) Day-ahead availability bid (MW, $/MW)
   - (b) Hour-ahead availability bid (MW, $/MW)
   - (c) Day-ahead Market clearing 10 minute non-spinning reserve price
   - (d) Real-time Market clearing 10 minute non-spinning reserve price
   - (e) Amount of 10 minute non-spinning reserve traded at day-ahead prices
   - (f) Amount of 10 minute non-spinning reserve traded at real-time prices

3. 30 Minute non-spinning reserve market
   - (a) Day-ahead availability bid (MW, $/MW)
   - (b) Hour-ahead availability bid (MW, $/MW)
   - (c) Day-ahead Market clearing 30 minute non-spinning reserve price
   - (d) Real-time Market clearing 30 minute non-spinning reserve price
   - (e) Amount of 30 minute non-spinning reserve traded at day-ahead prices
   - (f) Amount of 30 minute non-spinning reserve traded at real-time prices

4. Regulation service
   (a) Day-ahead availability bid (MW, $/MW)
   (b) Market clearing regulation price

5. Supplemental resource bids

C. ICAP Market

1. Total ICAP Responsibilities
2. Total resources capable of providing ICAP
3. ICAP Responsibilities by LSE
4. Subtotals of ICAP capable resources by owner
5. Amount of ICAP sold or offered by each owner
6. ICAP clearing price

D. System Conditions

1. Transmission facility planned outages
2. Transmission facility forced outages
3. Generating unit planned outages
4. Generating unit forced outages
5. When congestion is present
   (a) Limiting transmission element
   (b) Nature of constraint (thermal, voltage, stability)
   (c) Top ten contributors to constraint

E. Adjacent Markets

1. Energy prices in PJM, ECAR, NEPOOL and Canada
2. Hourly loads in PJM, ECAR, NEPOOL and Canada
3. Hourly interchange with PJM, ECAR, NEPOOL and Canada
4. Ancillary service prices in PJM, ECAR, NEPOOL and Canada
5. ICAP prices in PJM, ECAR, NEPOOL and Canada

F. Fuel Prices

1. Natural Gas
   (a) Spot prices
   (b) Futures contracts
2. Oil
   (a) Spot prices
   (b) Futures prices
3. Coal
   (a) Spot prices
   (b) Futures prices

II. Indices and Screens

A. Bid Reference Prices

- The lower of the mean or the median of the unit's bids over the previous 90 days for similar hours or load levels, adjusted for changes in fuel prices;

- The mean of the LBMP at the unit's location in during the lowest-priced 25 percent of hours that the unit was dispatched over the previous 90 days, adjusted for changes in fuel prices;

- The mean of the bids supplied by all units of similar types

1. Day-ahead energy bid reference prices
   (a) variable component
   (b) start-up cost component

2. Real-time energy market reference prices - variable component of hour-ahead bid

3. Spinning reserve market reference prices
   (a) day-ahead availability bid
   (b) hour-ahead availability bid

4. 10 Minute non-spinning reserve market reference prices
   (a) day-ahead availability bid
   (b) hour-ahead availability bid

5. 30 Minute non-spinning reserve market reference prices
   (a) day-ahead availability bid
   (b) hour-ahead availability bid

6. Regulation service reference prices

B. Bid variation

1. Deviation of bids from reference price levels
   (a) Deviation of day ahead energy market bids
   (b) Deviation of hour-ahead energy market bids
   (c) Deviation of spinning reserve market bids
   (d) Deviation of 10 Minute non-spinning reserve market bids
   (e) Deviation of 30 Minute non-spinning reserve market bids
   (f) Deviation of regulation service bids

2. Deviation of bids from longer or shorter-term moving averages of prior bids
   (a) Deviation of day ahead energy market bids
   (b) Deviation of hour-ahead energy market bids
   (c) Deviation of spinning reserve market bids
   (d) Deviation of 10 Minute non-spinning reserve market bids
   (e) Deviation of 30 Minute non-spinning reserve market bids
   (f) Deviation of regulation service bids

C. Scheduling variation

1. Deviation of day-ahead prices from day-ahead reference price levels when a generator is not scheduled or its schedule is reduced

   (a) Deviation of day-ahead LBMPs from day-ahead energy reference prices

   (b) Deviation of day-ahead spinning reserve price from day-ahead spinning reserve reference price

   (c) Deviation of day-ahead 10-minute non-spinning reserve price from day-ahead 10-minute non-spinning reserve reference price

   (d) Deviation of day-ahead 30-minute non-spinning reserve price from day-ahead 30-minute non-spinning reserve reference price

2. Deviation of real-time prices from real-time reference price levels when a generator is not scheduled or its schedule is reduced

   (a) Deviation of real-time LBMPs from real-time energy reference prices

   (b) Deviation of real-time spinning reserve price from real-time spinning reserve reference price

   (c) Deviation of real-time 10-minute non-spinning reserve price from real-time 10-minute non-spinning reserve reference price

   (d) Deviation of real-time 30-minute non-spinning reserve price from real-time 30-minute non-spinning reserve reference price

   (e) Deviation of current regulation service market price from regulation service reference price

3. Deviation between an LSE's actual load served real-time and the bid amount in the day-ahead market

4. Deviation between an LSE's actual load served real-time and the load dispatched in the day-ahead market

5. Deviation between the total market load served real-time and the total bid amount in the day-ahead market

6. Deviation between the total market load served real-time and the total load dispatched in the day-ahead market

D. Bid and Schedule Correlations

1. Correlation of unit schedules or bids and the existence or magnitude of congestion

2. Correlation of unit schedules or bids and generator bus LBMPs

3. Correlation of total system load in New York and LBMPs

4. Correlation of generator forced outages and LBMPs or congestion

5. Correlation of transmission facility forced outages and LBMPs or congestion

E. Residual Demand Indices – percent of market demand that must be served by a specific supplier (assuming all other suppliers are selling at their maximum capability)

Computing a residual demand index ("RDI")

Total market demand = D

Total market supply = Q

Residual Demand Index for supplier n = RDI_n = 1 - [(Q-q_n) / D] where:

q_n = net supply capability of firm n = (capability of firm n) – (demand of firm n)

- An RDI of 10 percent indicates that the supplier is effectively a monopoly supplier over 10 percent of the demand.
- Negative RDI values indicate that the supplier faces no residual demand over which it would effectively be a monopoly.

1. Energy Market
   (a) Hourly market
   (b) Day-ahead market
2. Ancillary Service Markets
3. ICAP Market

F. Price Deviations

1. Hourly difference between the real-time and day-ahead price
2. Average difference between the real-time and day-ahead price over a specified period (*i.e.*, initially a rolling eight week period)
3. Hourly difference in prices between New York and adjacent regions at the interconnection locations