

**ARTICLE 2**

**DEFINITIONS**

**2.0 Definitions**

The following definitions are applicable to the ISO Services Tariff:

**2.1 Actual Energy Injections**

Energy injections which are measured using a revenue-quality real-time meter.

**2.1.1 Actual Energy Withdrawals**

Energy withdrawals which are either: (1) measured with a revenue-quality real-time meter; (2) assessed (in the case of Load Serving Entities ("LSEs") serving retail customers where withdrawals are not measured by revenue-quality real-time meters) on the basis provided for in a Transmission Owner's retail access program; or (3) calculated (in the case of wholesale customers where withdrawals are not measured by revenue-quality real-time meters), until such time as revenue - quality real-time metering is available on a basis agreed upon by the unmetered wholesale customers.

**2.2 Adverse Conditions**

Those conditions of the natural or man-made environment that threaten the adequate reliability of the NYS Power System, including, but not limited to, thunderstorms, hurricanes, tornadoes, solar magnetic flares and terrorist activities.

Issued by: William J. Museler, President  
Issued on: May 31, 2002

Effective: June 1, 2002

## **2.2a Adjusted Actual Peak Load**

Actual peak Load adjusted to reflect: (i) Load relief measures such as voltage reduction and Load Shedding; (ii) peak Load reductions provided by ~~Interruptible Load Resources~~ Demand Side Resources; (iii) normalized design weather conditions; (iv) Station Power delivered at the time of a Transmission District's actual peak Load that is not being self supplied pursuant to Section 4.24 of the ISO Services Tariff; and (v) adjustments for Special Case Resources.

## **2.3 Affiliate**

With respect to a person or entity, any individual, corporation, partnership, firm, joint venture, association, joint-stock company, trust or unincorporated organization, directly or indirectly controlling, controlled by, or under common control with, such person or entity. The term "Control" shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

## **2.4 Ancillary Services**

Services necessary to support the transmission of Energy from Generators to Loads, while maintaining reliable operation of the NYS Power System in accordance with Good Utility Practice and Reliability Rules. Ancillary Services include Scheduling, System Control and Dispatch Service; Reactive Supply and Voltage Support Service (or "Voltage Support Service"); ~~Regulation and Frequency Response Service (or "Regulation Service")~~; Energy Imbalance

Issued by: William J. Museler, President  
Issued on: September 20, 2002

Effective: March 22, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. EL01-50-000, issued May 15, 2002, 99 FERC ¶ 61,167 (2002).

Service; Operating Reserve Service (including Spinning Reserve, 10-Minute Non-Synchronized Reserves and 30-Minute Reserves); and Black Start Capability.

## **2.5 Application**

A request to provide or receive service pursuant to the provisions of the ISO Services Tariff, that includes all information reasonably requested by the ISO.

## **2.6 Automatic Generation Control (“AGC”)**

The automatic regulation of the power output of electric Generators within a prescribed range in response to a change in system frequency, or tie-line loading, to maintain system frequency or scheduled interchange with other areas within predetermined limits.

## **2.7 Available Generating Capacity**

Generating Capacity that is on line to serve Load and/or provide Ancillary Services, or is capable of initiating start-up for the purpose of serving Transmission Customers or providing Ancillary Services, within thirty (30) minutes.

### **2.7a Available ~~Resources~~ Reserves**

For purposes of determining the Real-Time Locational Based Marginal Price in any ~~Security Constrained~~ Real-Time Dispatch interval: the capability of all Suppliers to provide ~~spinning~~ Spinning reserves ~~Reserves~~, ~~non~~ Non-synchronized ~~Synchronized~~ 10-minute ~~Minute~~ reserves ~~Reserves~~, and 30-minute ~~Minute~~ reserves ~~Reserves~~ in that interval and in the relevant location, and the quantity of recallable ~~external~~ External ICAP ~~energy~~ Energy sales in that interval.

## **2.8 Availability**

A measure of time that a Generator, transmission line or other facility is or was capable of providing service, whether or not it actually is in-service.

Issued by: William J. Museler, President

Effective: ~~January 2, 2001~~ ~~June 10, 2003~~

Issued on: ~~January 16, 2001~~ ~~April 23, 2003~~ ~~July 21, 2003~~

~~Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000-99-4235-002, issued June 20, 2003, 103 FERC ¶ 61,339 (2003); December 18, 2000.~~

## **2.9 Back-Up Operation**

**2.9a Back-up Operation Procedures:** The ISO shall develop Back-up Operation procedures that will carry out the intent and purposes of this Tariff to the extent practical, taking into consideration circumstances under which the normal communications or computer systems of the ISO are not fully functional. Such procedures shall include testing requirements and training for the ISO staff, Transmission Owner staff, and Market Participants. If communication or computer systems malfunctions result in the ISO's inability to operate the NYCA in accordance with the ISO's Procedures or under approved testing procedures, the ISO will direct the Transmission Owners to assume the responsibility to operate their respective systems in accordance with Good Utility Practice to facilitate the operation of the NYCA in a safe and reliable manner ("Back-up Operation"). The Transmission Owners will continue to operate their respective systems until such time that the ISO is ready to resume control. During Back-up Operation, the Transmission Owner control centers will operate to maintain the Desired Net Interchange ("DNI") within each Transmission District. Generator Bid curves will be provided by the ISO to the individual Transmission Owners in order to permit dispatch by the Transmission Owners subject to the Transmission Owner Code of Conduct. Normal Day-Ahead Market and Real-Time Market operations may be halted if required.

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

**2.9b Market Participant and Transmission Customer Obligations:** During Back-up Operation, Transmission Customers and other Market Participants shall comply with any and all instructions and orders issued by the ISO or the Transmission Owners.

**2.9c Billing and Settlement:** In the event that Back-up Operation is implemented, the billing and Settlement Procedures contained in this Tariff shall apply only to the extent they can be implemented by the Back-up Operation procedures. The ISO will follow specific billing and Settlement procedures developed by the ISO for use under these circumstances. The ISO shall gather necessary information, manually reconstruct the billing information as soon as practical, and submit invoices to Transmission Customers. The ISO shall be under no obligation to comply with the billing procedure time limits specified in Section 7. Neither the ISO nor the Transmission Owners shall be liable, under any circumstances, for any economic losses suffered by any Transmission Customer, Market Participant, or third party, resulting from the implementation by the ISO of Back-up Operation or compliance with orders issued by the ISO or Transmission Owners that were necessary to operate the NYCA in a safe and reliable manner. Such orders may include, without limitation, instructions to generation facilities to increase or decrease output, and instructions to Load to reduce or interrupt service.

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

## ~~2.10~~ **Balancing Market Evaluation (“BME”)**

~~An evaluation performed for the hour in which the dispatch occurs. The BME begins no more than ninety (90) minutes before the beginning of the hour in which dispatch occurs pursuant to ISO Procedures. Based upon the Day Ahead commitment and updated Load forecasts and Generator schedules, BME will assess new Bids for the Locational Based Marginal Pricing (“LBMP”) Markets and requests for new Bilateral Transaction schedules for the Dispatch Hour to which the SCUC applies. BME will redispatch Internal Generators, schedule External Generators, schedule new Bilateral Transactions if feasible, update Desired Net Interchanges if needed, and Reduce or Curtail Bilateral Transactions with Non Firm and Firm Transmission Service as needed for the Dispatch Hour for which the SCUC applies.~~

## 2.10 **Reserved for Future Use**

### **2.11 Base Point Signals**

Electronic signals sent from the ISO and ultimately received by Generators specifying the scheduled MW output for the Generator. ~~Security Constrained~~ Real-Time Dispatch (“~~SCDRTD~~”) Base Point Signals are typically sent to Generators on a nominal five (5) minute basis. AGC Base Point Signals are typically sent to Generators on a nominal six (6) second basis.

#### **2.11a Basis Amount**

The greatest amount owed to the ISO for purchases of Energy and Ancillary Services in any month during the Prior Equivalent Capability Period, as adjusted by the ISO to reflect material changes in the extent of the Customer’s participation in the ISO-administered Energy and Ancillary Services Markets.

Issued by: William J. Museler, President

Effective: ~~October 30, 2001~~

Issued on: ~~October 22, 2001~~ February 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).



**2.11b Basis Month**

The month during the Prior Equivalent Capability Period in which the amount owed by the Customer for Energy and Ancillary Services was greatest.

**2.12 Bid/Post System**

An electronic information system used to allow the posting of proposed transmission schedules and Bids for Energy and Ancillary Services by Market Participants for use by the ISO and to allow the ISO to post LBMPs and schedules.

Issued by: William J. Museler, President

Effective:

Issued on: February 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).

## **2.13 Bid**

Offer to purchase and/or sell Energy, Demand Reductions, Transmission Congestion Contracts and/or Ancillary Services at a specified price that is duly submitted to the ISO pursuant to ISO Procedures.

### **2.13a Bid Component**

A component of the Operating Requirement, calculated in accordance with Article III of Attachment K.

## **2.14 Bid Price**

The price at which the Customer offering the Bid is willing to provide the product or service, or is willing to pay to receive such product or service, as applicable.

## **2.15 Bid Production Cost**

Total cost of the Generators required to meet Load and reliability Constraints based upon Bids corresponding to the usual measures of Generator production cost (e.g., running cost and ~~and~~ Minimum Generation Bid, and Start-Up Bid).

### **2.15a Bidder**

An entity that bids to purchase Unforced Capacity in an Installed Capacity auction.

## **2.16 Bilateral Transaction**

A Transaction between two or more parties for the purchase and/or sale of Capacity, Energy, and/or Ancillary Services other than those in the ISO Administered Markets.

Issued by: William J. Museler, President

Effective: ~~October 30, 2001~~

Issued on: ~~September 4, 2001~~ ~~February 21, 2003~~ March 6, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).

## **2.17 Capability Period**

Six-month periods which are established as follows: (i) from May 1 through October 31 of each year (“Summer Capability Period”); and (ii) from November 1 of each year through April 30 of the following year (“Winter Capability Period”).

### **2.17a Capability Period Auction**

An auction conducted no later than thirty (30) days prior to the start of each Capability Period in which Unforced Capacity may be purchased and sold in a six-month strip.

### **2.17b Capability Year**

A Summer Capability Period, followed by a Winter Capability Period (*i.e.*, May 1 through April 30).

## **2.18 Capacity**

The capability to generate or transmit electrical power, measured in megawatts (“MW”).

### **2.18a Capacity Limited Resource**

A Resource that is constrained in its ability to supply Energy above its Normal Upper Operating Limit by operational or plant configuration characteristics. Capacity Limited Resources must register their Capacity limiting characteristics with, and justify them to, the ISO consistent with ISO Procedures. Capacity Limited Resources may submit a schedule indicating that their Normal Upper Operating Limit is a function depending on one or more variables, such as temperature or pondage levels, in which case the Normal Upper Operating Limit applicable at any time shall be determined by reference to that schedule.

### **2.18b CARL Data**

Control Area Resource and Load (“CARL”) data submitted by Control Area System Resources to the ISO.

### **2.19 Centralized Transmission Congestion Contracts (“TCC”) Auction (“Auction”)**

The process by which TCCs are released for sale for the Centralized TCC Auction period, through a bidding process administered by the ISO or an auctioneer.

### **2.20 ~~Class A Unit~~**

~~—— A Generator or Dispatchable Load that participates in nominal five (5) minute SCD dispatch.~~

### **2.21 ~~Class B Unit~~**

~~A Generator or Dispatchable Load that is not participating in the nominal five (5) minute SCD dispatch, but offers to provide spinning reserves to the ISO.~~ **Reserved for Future Use**

### **2.21 Reserved for Future Use**

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

## **2.22 Code of Conduct**

The rules, procedures and restrictions concerning the conduct of the ISO directors and employees, contained in Attachment F to the ISO Open Access Transmission Tariff.

## **2.23 Commission (“FERC”)**

The Federal Energy Regulatory Commission, or any successor agency.

### **2.23a Compensable Overgeneration**

A quantity of Energy injected by a Supplier, over a given ~~SCD~~RTD interval, that exceeds the Real-Time Scheduled Energy Injection established by the ISO for that Supplier and for which the Supplier may be paid pursuant to ISO Procedures, provided that the excess Energy injection does not exceed the ~~greater of the Supplier’s Real-Time Scheduled Energy Injection over that interval, plus a tolerance, or the Supplier’s Economic Operating Point over that interval, plus a tolerance.~~ The tolerance shall initially be set at 3% of a given Supplier’s ~~upper operating limit~~Normal Upper Operating Limit and may be modified by the ~~NYISO~~ISO if necessary to maintain good Control Performance.

## **2.24 Completed Application**

An Application that satisfies all of the information and other requirements for service under the ISO Services Tariff.

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001

## **2.25 Confidential Information**

Information and/or data that has been designated by a Customer to be proprietary and confidential, provided that such designation is consistent with the ISO Procedures, the ISO Services Tariff, and the ISO Code of Conduct.

## **2.26 Congestion**

A characteristic of the transmission system produced by a constraint on the optimum economic operation of the power system, such that the marginal price of Energy to serve the next increment of Load, exclusive of losses, at different locations on the transmission system is unequal.

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001

### **2.27 Congestion Component**

The component of the LBMP measured at a location or the Transmission Usage Charge between two locations that is attributable to the cost of transmission Congestion.

### **2.28 Congestion Rent**

The opportunity costs of transmission Constraints on the NYS Transmission System. Congestion Rents are collected by the ISO from Loads through its facilitation of LBMP Market Transactions and the collection of Transmission Usage Charges from Bilateral Transactions.

### **2.29 Congestion Rent Shortfall**

A condition in which the Congestion Rent revenue collected by the ISO in the Day-Ahead Market for Energy is less than the amount of Congestion Rent revenue in the Day-Ahead Market for Energy that the ISO is obligated under the ISO OATT to pay out to the Primary Holders of TCCs.

### **2.30 Constraint**

An upper or lower limit placed on a variable or set of variables that are used by the ISO in its SCUC, ~~BM~~ERTC, or ~~SC~~DRTD programs to control and/or facilitate the operation of the NYS Transmission System.

Issued by: William J. Museler, President

Effective: January 2, 2001

Issued on: January 16, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.



### **2.31 Contingency**

An actual or potential unexpected failure or outage of a system component, such as a Generator, transmission line, circuit breaker, switch or other electrical element. A Contingency also may include multiple components, which are related by situations leading to simultaneous component outages.

### **2.32 Control Area**

An electric system or combination of electric power systems to which a common Automatic Generation Control scheme is applied in order to: (1) match, at all times, the power output of the Generators within the electric power system(s) and Capacity and Energy purchased from entities outside the electric power system(s), with the Load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and (4) provide sufficient generating Capacity to maintain ~~operating reserves~~ Operating Reserves in accordance with Good Utility Practice.

#### **2.32a Control Area System Resource**

A set of Resources owned or controlled by an entity within a Control Area that also is the operator of such Control Area. Entities supplying Unforced Capacity using Control Area System Resources will not designate particular Resources as the suppliers of Unforced Capacity.

### **2.32b Control Performance**

A standard for measuring the degree to which a Control Area is providing Regulation and ~~Frequency Response~~ Service in conformance with NERC requirements.

### **2.32c Controllable Transmission**

Any Transmission facility over which power-flow can be directly controlled by power-flow control devices without having to re-dispatch generation.

### **2.32d Credit Assessment**

An assessment of a Customer's creditworthiness, conducted by the ISO in accordance with established procedures posted on the ISO's website, as they may be amended from time to time, accounting for the Customer's cash flow, liquidity, leverage and debt coverage, performance and profitability, contingent liabilities, and other factors including the Customer's level of activity in the ISO-administered markets.

### **2.33 Curtailment or Curtail**

A reduction in Firm or Non-Firm Transmission Service in response to a transmission Capacity shortage as a result of system reliability conditions.

Issued by: William J. Museler, President

Effective: ~~July 25, 2001~~ December 3, 2002

Issued on: ~~June 6, 2001~~ ~~December 23, 2002~~ February 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).

### **2.33a Curtailment Customer Aggregator**

A Curtailment Services Provider that produces real-time verified reductions in NYCA load of at least 100 kW through contracts with retail end-users. The procedure for qualifying as a Curtailment Customer Aggregator is set forth in ISO procedures.

#### **2.33a.1 Curtailment Initiation Cost**

The fixed payment, separate from a variable Demand Reduction Bid, required by a qualified Demand Reduction Provider in order to cover the cost of reducing demand.

### **2.33b Curtailment Services Provider**

A qualified entity that can produce real-time, verified reductions in NYCA Load of at least 100 kW in a single Load Zone, pursuant to the Emergency Demand Response Program and related ISO procedures. The procedure for qualifying as a Curtailment Services Provider is set forth in Section III below and in ISO Procedures.

### **2.34 Customer**

An entity which has complied with the requirements contained in the ISO Services Tariff, including having signed a Service Agreement, and is qualified to utilize the Market Services and the Control Area Services provided by the ISO under the ISO Services Tariff; provided, however, that a party taking services under the Tariff pursuant to an unsigned Service Agreement filed with the Commission by the ISO shall be deemed a Customer.

### **2.35 Day-Ahead**

Nominally, the twenty-four (24) hour period directly preceding the Dispatch Day, except when this period may be extended by the ISO to accommodate weekends and holidays.

### **2.36 Day-Ahead LBMP**

The LBMPs calculated based upon the ISO's Day-Ahead Security Constrained Unit Commitment process.

#### **2.36a Day-Ahead Margin**

That portion of Day-Ahead LBMP for an ~~SCD~~RTD interval that represents the difference between the Supplier's accepted Bid Price and the Day-Ahead LBMP for that interval.

#### **2.36b Day-Ahead Margin Assurance Payment**

A supplemental payment made to eligible Suppliers that reduce their real-time Energy Injections, or their real-time Operating Reserves or Regulation Service schedules, below the level specified in their Day-Ahead schedule in response to certain instructions by the ISO or a Transmission Owner. The procedures for calculating these payments are set forth in Attachment J to this ISO Services Tariff.

### **2.37 Day-Ahead Market**

The ISO Administered Market in which Capacity, Energy and/or Ancillary Services are scheduled and sold Day-Ahead consisting of the Day-Ahead scheduling process, price calculations and Settlements.

### **2.38 Decremental Bid**

A monotonically increasing Bid curve provided by an entity engaged in a Bilateral Import or Internal Transaction to indicate the LBMP below which that entity is willing to reduce its Generator's

output, and purchase Energy in the LBMP Markets, or by an entity engaged in a Bilateral Wheel Through ~~transaction~~ Transaction to indicate the Congestion Component cost below which that entity is willing to accept Transmission Service.

**2.38a Demand Reduction**

A quantity of reduced electricity demand from a Demand Side Resource that is bid, produced, purchased and sold over a period of time and measured or calculated in Megawatt hours.

**2.38b Demand Reduction Aggregator**

A Demand Reduction Provider, qualified pursuant to ISO Procedures, that bids Demand Side Resources of at least 1 MW through contracts with Demand Side Resources and is not a Load Serving Entity.

**~~2.38b Demand Reduction~~**

~~A quantity of reduced electricity demand from a Demand Side Resource that is bid, produced, purchased and sold over a period of time and measured or calculated in Megawatt hours.~~

**2.38c Demand Reduction Incentive Payment**

A payment to Demand Reduction Providers that are scheduled to make Day-Ahead Demand Reductions that are not supplied by a Local Generator. The payment shall be equal to the product of: (a) the Day-Ahead hourly LBMP at the applicable Demand Reduction bus; and (b) the lesser of the actual hourly Demand Reduction or the Day-Ahead scheduled hourly Demand Reduction in MW. Demand Reduction Incentive Payments shall not be made after October 31, 2004.

Issued by: William J. Museler, President  
Issued on: ~~March 21~~ May 2, 2003

Effective: ~~May 21~~ July 1, 2003

### **2.38d Demand Reduction Provider**

An entity that is eligible, pursuant to the relevant ISO Procedures, to bid Demand Side Resources of at least 1 MW into the Day-Ahead Market or, when the ISO has the capability to support their participation, the Real-Time Market. A Demand Reduction ~~Providers~~ Provider can be (i) a Load Serving Entity or (ii) a Demand Reduction Aggregator.

### **2.39 Demand Side Resources**

Resources located in the NYCA that are capable of reducing demand in a responsive, measurable and verifiable manner within time limits, and that are qualified to participate in competitive Energy and certain Operating Reserves markets pursuant to this ISO Services Tariff and the ISO Procedures.

### **2.40 Dependable Maximum Net Capability (“DMNC”)**

The sustained maximum net output of a Generator, as demonstrated by the performance of a test or through actual operation, averaged over a continuous time period as defined in the ISO Procedures.

### **2.41 Desired Net Interchange (“DNI”)**

A mechanism used to set and maintain the desired Energy interchange (or transfer) between two Control Areas; it is scheduled ahead of time and can be changed only manually in real-time.

Issued by: William J. Museler, President  
Issued on: ~~April 4, 2001~~ May 2, 2003

Effective: ~~May 1, 2001~~ July 1, 2003

## **2.42 Direct Sale**

The sale of TCCs directly to a buyer by the Primary Owner through a non-discriminatory auditable sale conducted on the ISO's OASIS, in compliance with the requirements and restrictions set forth in Commission Order Nos. 888 et seq. and 889 et seq.

Issued by: William J. Museler, President  
Issued on: April 4, 2001

Effective: May 1, 2001



### **2.43 Dispatchable**

A Generator or Load that is capable of responding in bidding mode in which Generators or Demand Side Resources are willing to respond to real-time control from the ISO. Dispatchable Generators may be either ISO-Committed Flexible or Self-Committed Flexible. Dispatchable Demand Side Resources must be ISO-Committed Flexible. Dispatchable Resources that are not providing Regulation Service will follow five-minute RTD Base Point Signals. Dispatchable Generators that are providing Regulation Service will follow six-second AGC Base Point Signals.

### **2.44 Dispatch Day**

The twenty-four (24) hour period commencing at the beginning of each day (0000 hour).

### **2.45 Dispute Resolution Administrator (“DRA”)**

An individual hired by the ISO to administer the Dispute Resolution Process established in the ISO Tariffs and ISO Agreement.

### **2.46 Dispute Resolution Process (“DRP”)**

The procedures: (1) described in the ISO Tariffs and the ISO Agreement that are used to resolve disputes between Market Participants and the ISO involving services provided under the ISO Tariffs (excluding applications for rate changes or other changes to the ISO Tariffs or rules relating to such services); and (2) described in the ISO/NYSRC Agreement that are used to resolve disputes between the ISO and NYSRC involving the implementation and/or application of the Reliability Rules.

#### **2.46a DMNC Test Period**

The period within a Capability Period during which a Resource required to do so pursuant to ISO procedures shall conduct a DMNC test if that DMNC test is to be valid for

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

purposes of determining the amount of Installed Capacity used to calculate the Unforced Capacity that this Resource is permitted to supply to the NYCA. Such periods will be established pursuant to the ISO Procedures.

#### **2.46b East of Central-East**

**Economic Operating Point** An electrical area comprised of Load Zones F, G, H, I, J, and K, as identified in the ISO Procedures.

#### **2.46c East of Central-East Excluding Long Island**

An electrical area comprised of Load Zones F, G, H, I, and J, as identified in the ISO Procedures..

#### **2.46d East of Central-East Excluding New York City and Long Island**

An electrical area comprised of Load Zones F, G, H, and I, as identified in the ISO Procedures.

#### **2.46e Economic Operating Point**

A point on a Supplier's Bid curve, established pursuant to ISO Procedures, that is a function of the Real-Time LBMP at the Supplier's bus, the Supplier's real-time Energy injection, ~~Hour Ahead~~ Real-Time Bid curve, real-time schedule, stated ramp rate and the Supplier's Economic Operating Point in the previous ~~SCD~~ RTD interval, which may be the Supplier's Real-Time Scheduled Energy Injection. A Supplier's Economic ~~Operation~~ Operating Point ~~may be~~ may be above, below, or equal to its Real-Time Scheduled Energy Injection.

#### **2.47 Emergency**

Any abnormal system condition that requires immediate automatic or manual action to prevent or limit loss of transmission facilities or Generators that could adversely affect the reliability of an electric system.

**2.47a Emergency Demand Response Program (“EDRP”)**

A program pursuant to which the ISO makes payments to Curtailment Service Providers that voluntarily take effective steps in real time, pursuant to ISO procedures, to reduce NYCA demand in Emergency conditions.

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

## **2.48 Emergency State**

The state that the NYS Power System is in when an abnormal condition occurs that requires automatic or immediate, manual action to prevent or limit loss of the NYS Transmission System or Generators that could adversely affect the reliability of the NYS Power System.

### **2.48a Emergency Upper Operating Limit (UOL<sub>E</sub>)**

The upper operating limit during extraordinary conditions that a Generator indicates that it expects to be able to reach, or the maximum amount of demand that a Demand Side Resource expects to be able to reduce, at the request of the ISO. Each Generator or Demand Side Resource shall specify a UOL<sub>E</sub> in its Bids that shall be equal to or greater than its stated Normal Upper Operating Limit.

## **2.49 Energy (“MWh”)**

A quantity of electricity that is bid, produced, purchased, consumed, sold, or transmitted over a period of time, and measured or calculated in megawatt hours.

### **2.49a Energy Limited Resource**

Capacity resources that, due to design considerations, environmental restrictions on operations, cyclical requirements, such as the need to recharge or refill, or other non-economic reasons, are unable to operate continuously on a daily basis, but are able to operate for at least four consecutive hours each day.

#### **2.49b Equivalent Demand Forced Outage Rate**

The portion of time a unit is in demand, but is unavailable due to forced outages.

#### **2.49c Excess Amount**

The difference, if any, between the dollar amounts charged to purchasers of Unforced Capacity in an ISO-administered Unforced Capacity auction and the dollar amounts paid to sellers of Unforced Capacity in that ISO-administered Installed Capacity auction.

#### **2.49d Energy and Ancillary Component**

A component of the Operating Requirement, calculated in accordance with Article III of Attachment K.

#### **2.49e Equivalency Rating**

A rating determined by the ISO, at a Customer's request, based on the ISO's financial evaluation of an Unrated Customer that shall serve as the starting point of the ISO's determination of an amount of Unsecured Credit to be granted to the Customer, if any, as provided in Table K-1.

#### **2.50 Excess Congestion Rents**

Congestion revenues in the Day-Ahead Market for Energy collected by the ISO that are in excess of its Day-Ahead payment obligations. Excess Congestion Rents may arise if Congestion occurs in the Day-Ahead Market for Energy and if the Day-Ahead Transfer

Issued by: William J. Museler, President

Effective: ~~September 4, 2001~~

Issued on: ~~July 6, 2001~~ ~~February 21, 2003~~ March 6, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).

Capability of the transmission system is not exhausted by the set of TCCs and Grandfathered Rights that have been allocated at the completion of the last Centralized TCC Auction.

**2.51 Existing Transmission Capacity for Native Load ("ETCNL")**

Transmission Capacity reserved on a Transmission Owner's transmission system to serve the Native Load Customers of the current Transmission Owners (as of the filing date of the original ISO Tariff - January 31, 1997). This includes transmission Capacity required: (1) to deliver the output from operating facilities located out of a Transmission Owner's Transmission District; (2) to deliver power purchased under power supply contracts; and (3) to deliver power purchased under third party agreements (i.e., Non-Utility Generators). Existing Transmission Capacity for Native Load is listed in Attachment L of the ISO OATT.

Issued by: William J. Museler, President  
Issued on: ~~July 6, 2001~~ February 21, 2003

Effective: ~~September 4, 2001~~

## **2.52 Existing Transmission Agreement (“ETA”)**

An agreement between two or more Transmission Owners, or between a Transmission Owner and another entity, as defined in the ISO Agreement and the ISO OATT.

### **2.52.1 Expected Load Reduction**

For purposes of determining the Real-Time Locational Based Marginal Price, the reduction in Load expected to be realized in real-time from activation of the Emergency Demand Response Program and from Load reductions requested from Special Case Resources, as established pursuant to ISO Procedures.

### **2.52a Expedited Dispute Resolution Procedures**

The procedures set forth in Section 5.16 of this Tariff.

## **2.53 Exports**

A Bilateral Transaction or purchases from the LBMP Market where the Energy is delivered to an NYCA Interconnection with another Control Area.

## **2.54 External**

An entity (e.g., Supplier, Transmission Customer) or facility (e.g., Generator, Interface) located outside the Control Area being referenced or between two or more Control Areas. Where a specific Control Area is not referenced, the NYCA is the intended reference.

## **2.55 External Transactions**

Purchases, sales or exchanges of Energy, Capacity or Ancillary Services for which either the Point of Injection (“POI”) or Point of Withdrawal (“POW”) or both are located outside the NYCA (i.e., Exports, Imports or Wheels Through).



Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 2

First Revised Sheet No. 38A  
Superseding Original Sheet No. 38A

## **2.56 Federal Power Act (“FPA”)**

The Federal Power Act, as may be amended from time-to-time (See 16 U.S.C. § 796 et seq.).

Issued by: William J. Museler, President

Effective: June 10, 2003

Issued on: April 23, 2003/July 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).

### **2.57 Firm Point-To-Point Transmission Service**

Transmission Service under this Tariff that is scheduled between specified Points of Receipt and Delivery pursuant to the ISO OATT. Firm Point-To-Point Transmission Service is service for which the Transmission Customer has agreed to pay the Congestion associated with its service. A Transmission Customer may fix the price of Congestion associated with its Firm Point-To-Point Transmission Service by acquiring sufficient TCCs with the same Points of Receipt and Delivery as its Transmission Service.

### **2.58 Firm Transmission Service**

Transmission service requested by a Transmission Customer willing to pay Congestion Rent.

### **2.59 First Settlement**

The process of establishing binding financial commitments on the part of Customers participating in the Day-Ahead Market based on Day-Ahead LBMP.

#### **2.59a Fixed Block Unit**

A unit that, due to operational characteristics, can only be dispatched in one of two states: either turned completely off, or turned on and run at a fixed capacity level.

#### **2.59b GADS Data**

Data submitted to the NERC for collection into the NERC's Generating Availability Data System ("GADS").

Issued by: William J. Museler, President

Effective: May 1, 2001

Issued on: May 7, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. ER00-3591-000, *et al.*, issued April 26, 2001, 95 FERC ¶ 61,121 (2001).

**2.60 Generator**

A facility capable of supplying Energy, Capacity and/or Ancillary Services that is accessible to the NYCA ~~or the Energy, Capacity and/or Ancillary Services from such facilities.~~

**2.61 [Reserved for ~~future use~~Future Use]**

Issued by: William J. Museler, President  
Issued on: February 9, 2001

Effective: April 10, 2001

## **2.62 Good Utility Practice**

Any of the practices, methods or acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods or acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region.

## **2.63 [NOT USED]**

## **2.64 Grandfathered Rights**

The transmission rights associated with: (1) Modified Wheeling Agreements; (2) Transmission Facility Agreements with transmission wheeling provisions; (3) Third Party Transmission Wheeling Agreements (“TWA”) where the party entitled to exercise the transmission rights associated with such Agreements has chosen, as provided in the Tariff, to retain those rights rather than to convert those rights to TCCs; and (4) Existing Transmission Capacity for Native Load, Table 3 of Attachment L to the ISO OATT. Upon the expiration or termination of Grandfathered Rights, the associated transmission Capacity is converted to Residual Transmission Capacity.

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

## **2.65 Grandfathered TCCs**

The TCCs associated with: (1) Modified Wheeling Agreements; (2) Transmission Facility Agreements with transmission wheeling provisions; (3) Third Party TWA where the party entitled to exercise the transmission rights associated with such Agreements has chosen, as provided by the Tariff, to convert those rights to TCCs; and (4) Existing Transmission Capacity for Native Load, Table 3 of Attachment L to the ISO OATT.

## **2.66—~~Hour Ahead Bid~~**

~~A bid submitted at least ninety (90) minutes before the dispatch hour to which it applies.~~

## **2.66a ICAP Demand Curve**

A series of prices which decline until reaching zero as the amount of Installed Capacity increases.

## **2.66ba ICAP Spot Market Auction**

An auction conducted pursuant to Section 5.14.1(a) of this Tariff to procure and set LSE Unforced Capacity Obligations for the subsequent Obligation Procurement Period, pursuant to the Demand Curves applicable to each respective LSE and the supply that is offered.

## **2.67 Imports**

A Bilateral Transaction or sale to the LBMP Market where Energy is delivered to a NYCA Interconnection from another Control Area.

## **2.68 Inadvertent Energy Accounting**

The accounting performed to track and reconcile the difference between net actual Energy interchange and scheduled Energy interchange of a Control Area with adjacent Control Areas.

### **2.68a In-City**

Located electrically within the New York City Locality (LBMP Load Zone J).

### **2.69 Incremental Bid**

A series of monotonically increasing bid curve with constant cost incremental Energy steps that indicate the maximum quantities of Energy for a finite number of break points given price that indicates an entity's willingness is willing to supply Energy at certain prices to the ISO ~~Administered LBMP Markets.~~

### **2.70 Independent System Operator (“ISO”)**

The New York Independent System Operator, Inc., a not-for-profit corporation established pursuant to the ISO Agreement.

### **2.71 Independent System Operator Agreement (“ISO Agreement”)**

The agreement that establishes the New York ISO.

### **2.72 Independent System Operator/New York State Reliability Council (“ISO/NYSRC Agreement”)**

The agreement between the ISO and the New York State Reliability Council governing the relationship between the two organizations.

### **2.73 Independent System Operator-Transmission Owner Agreement (“ISO/TO Agreement”)**

The agreement that establishes the terms and conditions under which the Transmission Owners transferred to the ISO Operational Control over designated transmission facilities.

### **2.74 Installed Capacity**

External or Internal Capacity, in increments of 100 kW, that is made-available, pursuant to Tariff requirements and ISO Procedures.

Issued by: William J. Museler, President  
Issued on: ~~March 21, 2003~~ June 19, 2003

Effective: May 21, 2003



#### **2.74a Installed Capacity Equivalent**

The Resource capability that corresponds to ~~its~~ its Unforced Capacity, calculated in accordance with ISO Procedures.

#### **2.74b Installed Capacity Marketer**

An entity which has signed this Tariff and which purchases Unforced Capacity from qualified Installed Capacity Suppliers, or from LSEs with excess Unforced Capacity, either bilaterally or through an ISO-administered auction. Installed Capacity Marketers that purchase Unforced Capacity through an ISO-administered auction may only resell Unforced Capacity purchased in such auctions in the NYCA.

#### **2.74c Installed Capacity Supplier**

An Energy Limited Resource, Generator, Installed Capacity Marketer, ~~Interruptible Load Resource~~, Special Case Resource, Intermittent Power Resource, municipally-owned generation, System Resource or Control Area System Resource that satisfies the ISO's qualification requirements for supplying Unforced Capacity to the NYCA.

#### **2.75 Interconnection or Interconnection Points ("IP")**

The point(s) at which the NYCA connects with a distribution system or adjacent Control Area. The IP may be a single tie line or several tie lines that are operated in parallel.

#### **2.76 Interface**

A defined set of transmission facilities that separate Load Zones and that separate the NYCA from adjacent Control Areas.

## **2.77 Interface MW - Mile Methodology**

The procedure used to allocate Residual TCCs, revenues from the sale of certain TCCs, and Excess Congestion Rents between the Transmission Owners as described in Attachment K to the ISO OATT.

### **2.77a Intermittent Power Resource**

Capacity resources that depend upon wind or solar energy for their fuel.

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

## **2.78 Internal**

An entity (e.g., Supplier, Transmission Customer) or facility (e.g., Generator, Interface) located within the Control Area being referenced. Where a specific Control Area is not referenced, internal means the NYCA.

## **2.79 Internal Transactions**

Purchases, sales or exchanges of Energy, Capacity or Ancillary Services where the Generator and Load are located within the NYCA.

## **2.80 ~~Interruptible Load Resources~~**

~~A Load that is obligated under a contract to be interrupted when required by the ISO. Such a Load must demonstrate that it is capable of quantifiable reduction in consumption in response to the ISO's instructions.~~ **2.80.1 Investment Grade Customer**

A Customer that meets the criteria set forth in Article II of Attachment K.

## **2.80a Investor-Owned Transmission Owners**

At the present time these include: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

## **2.81 ISO Administered Markets**

The Day-Ahead Market and the Real-Time Market (collectively the "LBMP Markets") and any other market or auction administered by the ISO.

## **2.81a ISO-Committed Fixed**

A bidding mode in which a Generator requests that the ISO commit and schedule it in the

Day-Ahead Market, and participates as a Self-Committed Fixed Generator in the Real-Time Market.

**2.81b ISO-Committed Flexible**

A bidding mode in which a Dispatchable Generator or Demand Side Resource follows Base Point Signals and is committed by the ISO.

Issued by: William J. Museler, President

Effective: ~~January 2, 2001~~

Issued on: ~~January 16, 2001~~ February 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER ~~01-3009-00399-4235-002~~, issued ~~December 18, 2000~~ March 14, 2002, 98 FERC ¶ 61,282 (2002).

## **2.82 ISO Market Power Monitoring Program**

The monitoring program approved by the Commission and administered by the ISO designed to monitor the possible exercise of market power in ISO Administered Markets.

## **2.83 ISO OATT**

The ISO Open Access Transmission Tariff.

## **2.84 ISO Procedures**

The procedures adopted by the ISO in order to fulfill its responsibilities under the ISO OATT, the ISO Services Tariff and the ISO Related Agreements.

## **2.85 ISO Related Agreements**

Collectively, the ISO Agreement, the ISO/TO Agreement, the NYSRC Agreement, and the ISO/NYSRC Agreement.

## **2.86 ISO Services Tariff (the "Tariff")**

The ISO Market Administration and Control Area Services Tariff.

## **2.87 ISO Tariffs**

The ISO OATT and the ISO Services Tariff, collectively.

## **2.88 LBMP Market(s) +**

The Real-Time Market or the Day-Ahead Market or both.

## **2.88a Limited Customer**

An entity that is not a Customer but which qualifies to participate in the ISO's

Emergency Demand Response Program by complying with Limited Customer requirements set forth in the ISO Procedures.

**2.89 LIPA Tax Exempt Bonds**

Obligations of the Long Island Power Authority, the interest on which is not included in gross income under the Internal Revenue Code.

## **2.90 Load**

A term that refers to either a consumer of Energy or the amount of demand (MW) or Energy (MWh) consumed by certain consumers.

## **2.91 Load Serving Entity ("LSE")**

Any entity, including a municipal electric system and an electric cooperative, authorized or required by law, regulatory authorization or requirement, agreement, or contractual obligation to supply Energy, Capacity and/or Ancillary Services to retail customers located within the NYCA, including an entity that takes service directly from the ISO to supply its own Load in the NYCA.

## **2.92 Load Shedding**

The systematic reduction of system demand by disconnecting Load in response to a Transmission System or area Capacity shortage, system instability, or voltage control considerations under the ISO OATT.

## **2.93 Load Zone**

One (1) of eleven (11) geographical areas located within the NYCA that is bounded by one (1) or more of the fourteen (14) New York State Interfaces. ~~During the implementation of the LBMP Markets, all Loads located within the same Load Zone pay the same Day Ahead LBMP and the same Real Time LBMP for Energy purchased in those markets.~~

## **2.94 Local Furnishing Bonds**

Tax-exempt bonds issued by a Transmission Owner under an agreement between the Transmission Owner and the New York State Energy Research and Development Authority (“NYSERDA”), or its successor, or by a Transmission Owner itself, and pursuant to Section 142(f) of the Internal Revenue Code, 26 U.S.C. § 142(f).

### **2.94a Local Generator**

A resource operated by or on behalf of a Load that is either: (i) not synchronized to a local distribution system; or (ii) synchronized to a local distribution system solely in order to support a Load that is equal to or in excess of the resource’s Capacity. Local Generators supply Energy only to the Load they are being operated to serve and do not supply Energy to the distribution system.

## **2.95 Locality**

A single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District within which a minimum level of Installed Capacity must be maintained.

## **2.96 Local Reliability Rule**

A Reliability Rule established by a Transmission Owner, and adopted by the NYSRC, to meet specific reliability concerns in limited areas of the NYCA, including without limitation,



special conditions and requirements applicable to nuclear plants and special requirements applicable to the New York City metropolitan area.

**2.97 Locational Based Marginal Pricing (“LBMP”)**

The price of Energy at each location in the NYS Transmission System as calculated pursuant to Attachment B.

Issued by: William J. Museler, President

Effective: May 1, 2001

Issued on: September 9, 2002

Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. ER00-3591-000 *et al.*, issued August 9, 2002, 99100 FERC ¶ 61,182 (2002).

## **2.98 Locational Minimum Installed Capacity Requirement**

The portion of the NYCA Minimum Installed Capacity Requirement that must be electrically located within a Locality, or possess an approved Unforced Capacity Deliverability Right, in order to ensure that sufficient Energy and Capacity are available in that Locality and that appropriate reliability criteria are met.

### **2.98a Locational Minimum Unforced Capacity Requirement**

The Unforced Capacity equivalent of the Locational Minimum Installed Capacity Requirement.

### **2.98b Long Island (“L.I.”)**

An electrical area comprised of Load Zone K, as identified in the ISO Procedures.

## **2.99 Lost Opportunity Cost**

The foregone profit associated with the provision of Ancillary Services, which is equal to the product of: (1) the difference between (a) the Energy that a Generator could have sold at the specific LBMP and (b) the Energy sold as a result of reducing the Generator’s output to provide an Ancillary Service under the directions of the ISO; and (2) the LBMP existing at the time the Generator was instructed to provide the Ancillary Service, less the Generator’s Energy bid for the same MW segment.

### **2.99a LSE Unforced Capacity Obligation**

The amount of Unforced Capacity that each NYCA LSE must obtain for an Obligation Procurement Period as determined by the ICAP Demand Curve for the NYCA, the New York

City Locality, and/or the Long Island Locality, as applicable, for each ICAP Spot Market Auction. The amount includes, at a minimum, each LSE's share of the NYCA Minimum Unforced Capacity Requirement and the Locational Minimum Unforced Capacity Requirement, as applicable to each LSE to avoid the assessment of a supplemental supply fee.

### **2.100 Major Emergency State**

An Emergency accompanied by abnormal frequency, abnormal voltage and/or equipment overloads that create a serious risk that the reliability of the NYS Power System could be adversely affected.

### **2.101 Marginal Losses**

The NYS Transmission System Real Power Losses associated with each additional MWh of consumption by Load, or each additional MWh transmitted under a Bilateral Transaction as measured at the Points of Withdrawal.

### **2.102 Marginal Losses Component**

The component of LBMP at a bus that accounts for the Marginal Losses, as measured between that bus and the Reference Bus.

### **2.102a Market-Clearing Price**

The price determined in an Installed Capacity auction for each ISO-defined Locality, the remainder of the NYCA and each adjacent External Control Area for which all offers to sell and bids to purchase Unforced Capacity are in equilibrium.

### **2.103 Market Participant**

An entity, excluding the ISO, that produces, transmits, sells, and/or purchase for resale Unforced Capacity, Energy or Ancillary Services in the Wholesale Market. Market Participants include: Transmission Customers under the ISO OATT, Customers under the ISO Services Tariff, Power Exchanges, Transmission Owners, Primary Holders, LSEs, Suppliers and their designated agents. Market Participants also include entities buying or selling TCCs.

#### **2.104 Market Services**

Services provided by the ISO under the ISO Services Tariff related to the ISO Administered Markets for Energy, Capacity and Ancillary Services.

#### **2.105 Member Systems**

The eight Transmission Owners that comprise the membership of the New York Power Pool.

#### **2.106 Minimum Generation ~~and Start-Up Bid~~**

~~The A Bid parameter that identifies the payment required by a Supplier requires to ~~bring~~operate a Generator to, ~~and operate~~ at, its specified minimum safe and stable operating level or to provide a Demand Side Resource's specified minimum quantity of Demand Reduction.~~

#### **2.106Aa Minimum Payment Nomination**

An offer, submitted in dollars per Megawatt-hour and not to exceed \$500 per Megawatt-hour, to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity a Special Case Resource is supplying to the NYCA.

#### **2.107 Modified Wheeling Agreement ("MWA")**

A Transmission Agreement in existence, as amended, between Transmission Owners, that is associated with existing Generators or power supply contracts, that will be modified effective upon LBMP implementation. The terms and conditions of the MWA will remain the same as the original agreement, except as noted in the ISO OATT.

#### **2.107a Monthly Auction**

An auction administered by the ISO pursuant to Section 5.13.3 of the ISO Services Tariff.

Issued on: February 6, 2003

### **2.107b Native Load Customers**

The wholesale and retail power customers of the Transmission Owners on whose behalf the Transmission Owners, by statute, franchise, regulatory requirement, or contract, have undertaken an obligation to construct and operate the Transmission Owners' systems to meet the reliable electric needs of such customers.

Issued by: William J. Museler, President  
Issued on: December 20, 2002

Effective: February 18, 2003

**2.108 NERC**

The North American Electric Reliability Council.

**2.109 Network Integration Transmission Service**

The Transmission Service provided under Part III of the Tariff.

**2.109a New York City**

The electrical area comprised of Load Zone J, as identified in the ISO Procedures.

**2.110 New York Control Area (“NYCA”)**

The Control Area that is under the control of the ISO which includes transmission facilities listed in the ISO/TO Agreement Appendices A-1 and A-2, as amended from time-to-time, and Generation located outside the NYS Power System that is subject to protocols (e.g., telemetry signal biasing) which allow the ISO and other Control Area operator(s) to treat some or all of that Generation as though it were part of the NYS Power System.

**2.111 New York Power Pool (“NYPP”)**

An organization established by agreement (the “New York Power Pool Agreement”) made as of July 21, 1966, and amended as of July 16, 1991, by and among Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Lighting Company, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., Rochester Gas and Electric Corporation, and the Power Authority of the State of New York. LIPA became a Member of the NYPP on May 28, 1998 as a result of the acquisition of the Long Island Lighting Company by the Long Island Power Authority.

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued



~~December 18, 2000.~~

### **2.112 New York State Power System ("NYS Power System")**

All facilities of the NYS Transmission System, and all those Generators located within the NYCA or outside the NYCA, some of which may from time-to-time be subject to operational control by the ISO.

### **2.113 New York State Reliability Council ("NYSRC")**

An organization established by agreement among the Member Systems to promote and maintain the reliability of the NYS Power System.

### **2.114 New York State Reliability Council Agreement ("NYSRC Agreement")**

The agreement which established the NYSRC.

### **2.115 New York State Transmission System ("NYS Transmission System")**

The entire New York State electric transmission system, which includes: (1) the Transmission Facilities Under ISO Operational Control; (2) the Transmission Facilities Requiring ISO Notification; and (3) all remaining transmission facilities within the NYCA.

### **2.115a Non-Competitive Proxy Generator Bus**

(a) The Proxy Generator Bus for the Hydro Quebec Control Area; and (b) any other Proxy Generator Bus for an area outside of the New York Control Area that has been identified by the ~~NYISO~~ISO as characterized by ~~Nonnon-Competitivecompetitive import~~Import or ~~export~~Export prices, and that has been approved by the Commission for designation as a Non-Competitive Proxy Generator Bus.

Issued by: William J. Museler, President

Effective: ~~January 2, 2001~~ May 31, 2003

Issued on: ~~January 16, 2001~~ February 21, 2003 ~~April 1, 2003~~

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003-99-4235-002, issued December 18, 2000 March 14, 2002, 98 FERC ¶ 61,282 (2002)

**2.116 Non-Firm-Point-To-Point Transmission Service**

Point-To-Point Transmission Service under the Tariff for which a Customer is not willing to pay Congestion. Such service is available absent constraint under Part II of this Tariff.

Non-Firm-Point-To-Point Transmission Service is available on a stand-alone basis for individual one-hour periods not to exceed twenty-four (24) consecutive hours.

**2.116a Non-Investment Grade Customer**

A Customer that does not meet the criteria necessary to be an Investment Grade Customer, as set forth in Article II of Attachment K.

### **2.117 Non-Utility Generator ("NUG," "Independent Power Producer" or "IPP")**

Any entity that owns or operates an electric generating facility that is not included in an electric utility's rate base. This term includes, but is not limited to, cogenerators and small power producers and all other non-utility electricity producers, such as exempt wholesale Generators that sell electricity.

### **2.118 Normal State**

The condition that the NYS Power System is in when the Transmission Facilities Under ISO Operational Control are operated within the parameters listed for Normal State in the Reliability Rules. These parameters include, but are not limited to, thermal, voltage, stability, frequency, operating reserve and Pool Control Error limitations.

### **2.118a Normal Upper Operating Limit (UOL<sub>N</sub>)**

The upper operating limit that a ~~Capacity Limit Resource or Energy Limited~~Generator indicates it expects to be able to reach, or the maximum amount of demand that a Demand Side Resource expects to be able to reduce, during normal conditions. Each Resource registers with the ISO, will specify its UOL<sub>N</sub> in its Bids.

### **2.119 NPCC**

The Northeast Power Coordinating Council.

### **2.120 NRC**

The Nuclear Regulatory Commission or any successor thereto.

### **2.120a NYCA Installed Reserve Margin**

The ratio of the amount of additional Installed Capacity required by the NYSRC in order for the NYCA to meet NPCC reliability criteria to the forecasted NYCA upcoming Capability Year peak Load, expressed as a decimal.

### **2.120b NYCA Minimum Installed Capacity Requirement**

The requirement established for each Capability Year by multiplying the NYCA peak Load forecasted by the ISO by the quantity one plus the NYCA Installed Reserve Margin.

### **2.120c NYCA Minimum Unforced Capacity Requirement**

The Unforced Capacity equivalent of the NYCA Minimum Installed Capacity Requirement.

### **2.121 NYPA**

The Power Authority of the State of New York.

## **2.122 NYPA Tax-Exempt Bonds**

Obligations of the New York Power Authority, the interest on which is not included in gross income under the Internal Revenue Code.

### **~~2.122a~~2.123 Obligation Procurement Period**

The period of time for which LSEs shall be required to satisfy their Unforced Capacity requirements. Starting with the 2001-2002 Winter Capability Period, Obligation Procurement Periods shall be one calendar month in duration and shall begin on the first day of each calendar month.

### **~~2.123 Off-Dispatch~~**

~~A Dispatchable Generator or Load that is not capable of responding to computer issued ISO instructions but is capable of responding to ISO orders relayed by telephone.~~

### **2.124 Off-Peak**

The hours between 11 p.m. and 7 a.m., prevailing Eastern Time, Monday through Friday, and all day Saturday and Sunday, and NERC-defined holidays, or as otherwise decided by ISO.

### **~~2.124a~~2.125 Offeror**

An entity that offers to sell Unforced Capacity in an auction.

### **~~2.125 On-Dispatch~~**

~~A Dispatchable Generator or Load that is capable of responding to computer issued ISO instructions.~~

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

### **2.126 On-Peak**

The hours between 7 a.m. and 11 p.m. inclusive, prevailing Eastern Time, Monday through Friday, except for NERC-defined holidays, or as otherwise decided by the ISO.

### **2.127 Open Access Same-Time Information System ("OASIS")**

The information system and standards of conduct contained in Part 37 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

### **2.128 Operating Capacity**

Capacity that is readily converted to Energy and is measured in MW.

#### **2.128a Operating Committee**

A standing committee of the ISO created pursuant to the ISO Agreement, which coordinates operations, develops procedures, evaluates proposed system expansions and acts as a liaison to the NYSRC.

#### **2.128b Operating Data**

Pursuant to Section 5.12.5 of this Tariff, Operating Data shall mean GADS Data, data equivalent to GADS Data, CARL Data, metered Load data, or actual system failure occurrences data, all as described in the ISO Procedures.

#### **2.128c Operating Requirement**

The amount calculated in accordance with Article I of Attachment K.



## 2.129 Operating Reserves

~~Generator Capacity that is available to supply Energy, or Interruptible Load Resources that are available to Curtail Energy usage, reduce Demand~~ in the event of Contingency conditions, ~~which meet~~ and that meets the requirements of the ISO. The ISO will administer Operating Reserves include spinning reserves markets, in the manner described in Article 4 and Rate Schedule 4 of this ISO Services Tariff, to satisfy the various Operating Reserves requirements, non-synchronized 10-minute reserves including locational requirements, and 30-minute reserves, established by the Reliability Rules and other applicable reliability standards. The basic Operating Reserves products that will be procured by the ISO on behalf of the market are classified as follows:

- (1) Spinning Reserve: Operating Reserves provided by Generators that meet the eligibility criteria set forth in Rate Schedule 4 of this ISO Services Tariff that are already synchronized to the NYS Power System and can respond to instructions to change their output level, or reduce their Energy usage, within ten (10) minutes;
- (2) 10-Minute Non-Synchronized Reserve: Operating Reserves provided by Generators, or, when the ISO has the capability to support their participation, Demand Side Resources, that meet the eligibility criteria set forth in Rate Schedule 4 of this ISO Services Tariff and that can be started, synchronized and can change their output level, or reduce their Energy usage, within ten (10) minutes; and
- (3) 30-Minute Reserve: Synchronized Operating Reserves provided by Generators, or non-synchronized Operating Reserves provided by Generators and, when the

ISO has the capability to support their participation, Demand Side Resources, that meet the eligibility criteria set forth in Rate Schedule 4 of this ISO Services Tariff and that can respond to instructions to change their output level or reduce their Energy usage within thirty (30) minutes, including starting and synchronizing to the NYS Power System to the extent that the reserves are provided by non-synchronized resources

Issued by: William J. Museler, President  
Issued on: February 9, 2001

Effective: April 10, 2001

### **2.129a Operating Reserve Demand Curve**

A series of quantity/price points that defines the maximum Shadow Price for Operating Reserves meeting a particular Operating Reserve requirement corresponding to each possible quantity of Resources that the ISO may schedule to meet that requirement. A single Operating Reserve Demand Curve will apply to both the Day-Ahead Market and the Real-Time Market for each of the ISO's nine Operating Reserve requirements.

### **2.130 Operating Study Power Flow**

A Power Flow analysis that is performed at least once before each Capability Period that is used to determine each Interface Transfer Capability for the Capability Period (See Attachment M to the ISO OATT).

### **2.131 Operational Control**

Directing the operation of the Transmission Facilities Under ISO Operational Control to maintain these facilities in a reliable state, as defined by the Reliability Rules. The ISO shall approve operational decisions concerning these facilities, made by each Transmission Owner before the Transmission Owner implements those decisions. In accordance with ISO Procedures, the ISO shall direct each Transmission Owner to take certain actions to restore the system to the Normal State. Operational Control includes security monitoring, adjustment of generation and transmission resources, coordination and approval of changes in transmission status for maintenance, determination of changes in transmission status for reliability, coordination with other Control Areas, voltage reductions and Load Shedding, except that each Transmission Owner continues to physically operate and maintain its facilities.

### **2.132 Optimal Power Flow (“OPF”)**

The Power Flow analysis that is performed during the administration of the Centralized  
TCC Auction to determine the most efficient simultaneously feasible allocation of TCCs to  
Bidders (See Attachment M to the ISO OATT).

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued  
December 18, 2000.

### **2.133 Order Nos. 888 et seq.**

The Final Rule entitled Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, issued by the Commission on April 24, 1996, in Docket Nos. RM95-8-000 and RM94-7-001, as modified on rehearing, or upon appeal. (See FERC Stats. & Regs. [Regs. Preambles January 1991 - June 1996] ¶ 31,036 (1996) (“Order No. 888”), on reh’g, III FERC Stats. & Regs. ¶ 31,048 (1997) (“Order No. 888-A”), on reh’g, 81 FERC ¶ 61,248 (1997) (“Order No. 888-B”), order on reh’g, 82 FERC ¶ 61,046 (1998) (“Order No. 888-C”).

### **2.134 Order Nos. 889 et seq.**

The Final Rule entitled Open Access Same-Time Information System (formerly Real-Time Information Networks) and Standards of Conduct, issued by the Commission on April 24, 1996, in Docket No. RM95-9-000, as modified on rehearing, or upon appeal. (See FERC Stats. & Regs. [Regs. Preambles 1991-1996] ¶ 31,035 (1996) (“Order No. 889”), on reh’g, III FERC Stats. & Regs. ¶ 31,049 (1997) (“Order No. 889-A”), on reh’g, 81 FERC ¶ 61,253 (1997) (“Order No. 889-B”).

### **2.135 Out-of-Merit Generation**

Generators producing at a different level of output than they would produce in a dispatch

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

to meet Load which was not security constrained. Out-of-Merit Generation occurs to maintain system reliability or to provide Ancillary Services.

### **2.136 Performance Index**

An index, described in ISO Procedures, that tracks a Generator's response to AGC signals from the ISO.

### **2.137 Performance Tracking System**

A system designed to provide quantitative comparisons of actual values versus expected and forecasted values for Generators and Loads. This system will be used by the ISO to measure compliance with criteria associated with, but not limited to, the provision of Regulation and Frequency Response Service.

### **~~2.137a Persistent Ten Minute Reserves Shortage~~**

~~For purposes of determining the Real Time Locational Based Marginal Price, the failure to meet the 10 minute Operating Reserves requirement in any Security Constrained Dispatch interval, during an Emergency condition, that may occur after the ISO has (i) started all providers of 30 minute reserve so that they can provide either energy or 10 minute synchronized reserve; (ii) counted as 10 minute reserve those providers that could be started to produce energy or 10 minute synchronized reserves; (iii) recalled its external ICAP energy sales, (iv) activated the Emergency Demand Response Program and requested Load reductions from~~

Issued on: ~~June 6, 2001~~ April 23, 2003 July 21, 2003

~~Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).~~

~~Special Case Resources and (v) counted as Operating Reserves the Load reduction available with a 5% Voltage reduction, provided however, that the ISO has determined, pursuant to ISO Procedures, that the failure to meet the 10 minute Operating Reserves requirement in any Security Constrained Dispatch interval is persistent. The NYISO will deem persistent a shortage of 10 minute reserve no earlier than the first Security Constrained Dispatch interval following the appearance of the 10 minute reserve shortage and no later than the next Security Constrained Dispatch interval that begins thirty (30) minutes after the appearance of the 10 minute reserve shortage.~~

#### **2.138 Point to Point Transmission Service**

The reservation and transmission of Capacity and Energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Part II of the Tariff.

#### **2.139 Point(s) of Injection (“POI” or “Point of Receipt”)**

The point(s) on the NYS Transmission System where Energy, Capacity and Ancillary Services will be made available to the ISO by the delivering party under the ISO OATT or the ISO Services Tariff. The Point(s) of Injection shall be specified in the Service Agreement.



Issued by: William J. Museler, President

Effective: June 10~~23~~, 10, 2003

Issued on: April 23, 2003~~July 21, 2003~~

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).

**2.140 Point(s) of Withdrawal (“POW” or “Point of Delivery”)**

The point(s) on the NYS Transmission System where Energy, Capacity and Ancillary Services will be made available to the receiving party under the ISO OATT or the ISO Services Tariff. The Point(s) of Withdrawal shall be specified in the Service Agreement.

**2.141 Pool Control Error (“PCE”)**

The difference between the actual and scheduled interchange with other Control Areas, adjusted for frequency bias.

**2.142 Post Contingency**

Conditions existing on a system immediately following a Contingency.

**2.143 Power Exchange (“PE”)**

A commercial entity meeting the requirements for service under the ISO OATT or the ISO Services Tariff that facilitates the purchase and/or sale of Energy, Unforced Capacity and/or Ancillary Services in a New York Wholesale Market. A PE may transact with the ISO on its own behalf or as an agent for others.

**2.144 Power Factor**

The ratio of real power to apparent power (the product of volts and amperes, expressed in megavolt-amperes, MVA).

**2.145 Power Factor Criteria**

Criteria to be established by the ISO to monitor a Load’s use of Reactive Power.

## **2.146 Power Flow**

A simulation which determines the Energy flows on the NYS Transmission System and adjacent transmission systems.

### **2.146a Pre-Scheduled Transaction Request**

An offer submitted, pursuant to ISO Procedures, for priority scheduling of Transactions between the ISO and neighboring Control Areas to: (i) purchase Energy from the LBMP Market at the LBMP Market Price and deliver it to an External Control Area; (ii) sell Energy delivered from an External Control Area to the LBMP Market at the LBMP Market Price; or (iii) wheel Energy through the New York Control Area from one External Control Area to another External Control Area at the market-determined Transmission Usage Charge. Pre-Scheduled Transaction Requests accepted for scheduling reserve Ramp Capacity and Transfer Capability and receive priority scheduling in the LBMP Market.

### **2.146b Pre-Scheduled Transaction**

A Transaction accepted for scheduling in the designated LBMP Market pursuant to a Pre-Scheduled Transaction Request. Pre-Scheduled Transactions may be withdrawn only with the approval of the ISO pursuant to the ISO Procedures.

## **2.147 Primary Holder**

A Primary Holder of each TCC is the Primary Owner of that TCC or the party that purchased that TCC at the close of the Centralized TCC Auction. With respect to each TCC, a

Primary Holder must be: (1) a Transmission Customer that has purchased the TCC in the Centralized TCC Auction, and that has not resold it in that same Auction; (2) a Transmission Customer that has purchased the TCC in a Direct Sale with another Transmission Customer; (3) the Primary Owner who has retained the TCC; or (4) Primary Owners of the TCC that allocated the TCC to certain customers or sold it in the Secondary Market or sold through a Direct Sale to an entity other than a Transmission Customer. The ISO settles Day-Ahead Congestion Rents pursuant to Attachments M and N to the ISO OATT with the Primary Holder of each TCC.

#### **2.148 Primary Owner**

The Primary Owner of each TCC is the Transmission Owner or other Transmission Customer that has acquired the TCC through conversion of rights under an Existing Transmission Agreement to Grandfathered TCCs (in accordance with Attachment K of the ISO OATT) or the Transmission Owner that acquired the TCC through the ISO's allocation of Residual TCCs (in accordance with Attachments K and M to the ISO OATT). The ISO distributes Centralized TCC

Issued by: William J. Museler, President  
Issued on: December 28, 2001

Effective: February 28, 2002

Auction revenues to Primary Owners or Primary Holders who released the TCCs into the Auction (in accordance with Attachments K and M to the ISO OATT).

### **2.148a Prior Equivalent Capacity Period**

The previous same-season Capability Period.

### **2.149 Proxy Generator Bus**

A Generator bus located outside the NYCA that is selected by the ISO to represent a typical bus in an adjacent Control Area and for which LBMP prices are calculated.

### **2.150 PSC**

The Public Service Commission of the State of New York or any successor agency thereto.

### **2.151 PSL**

The New York Public Service Law, Public Service Law § 1 et seq. (McKinney 1989 & Supp. 1997-98).

#### **2.151.1 Quick Start Mode**

The setting of a block of generator units capable of remote start-up by a Transmission Owner so that it can synchronize and reach full output within fifteen (15) minutes.

#### **2.151.2 Quick Start Reserves**

Capacity of a block of generator units that is set to Quick Start Mode by request of a Transmission Owner or the ISO.

### **2.151a Ramp Capacity**

The amount of change in the Desired Net Interchange that generation located in the NYCA can support at any given time. Ramp capacity may be calculated for all Interfaces between the NYCA and neighboring Control Areas as a whole or for any individual Interface between the NYCA and an adjoining Control Area.

### **2.152 Reactive Power (MVar)**

The product of voltage and the out-of-phase component of alternating current. Reactive Power, usually measured in MVar, is produced by capacitors (synchronous condensers) and over-excited Generators and absorbed by reactors or under-excited Generators and other inductive devices including the inductive portion of Loads.

### **2.153 Real Power Losses**

The loss of Energy, resulting from transporting power over the NYS Transmission System, between the Point of Injection and Point of Withdrawal of that Energy.

Issued by: William J. Museler, President  
Issued on: ~~September 25, 2001~~ ~~February 21, 2003~~ March 21, 2003

Effective: ~~October 30, 2001~~ March 1, 2003

### **2.153a Real-Time Bid**

A Bid submitted into the Real-Time Commitment at least seventy-five minutes before the start of a dispatch hour.

### **2.153b Real-Time Commitment (“RTC”)**

A multi-period security constrained unit commitment and dispatch model that co-optimizes to solve simultaneously for Load, Operating Reserves and Regulation Service on a least as-bid production cost basis over a two hour and fifteen minute optimization period. The optimization evaluates the next ten points in time separated by fifteen minute intervals. Each RTC run within an hour shall have a designation indicating the time at which its results are posted; “RTC<sub>00</sub>,” “RTC<sub>15</sub>,” “RTC<sub>30</sub>,” and “RTC<sub>45</sub>” post on the hour, and at fifteen, thirty, and forty-five minutes after the hour, respectively. Each RTC run will produce binding commitment instructions for the periods beginning fifteen and thirty minutes after its scheduled posting time and will produce advisory commitment guidance for the remainder of the optimization period. RTC<sub>15</sub> will also establish External Transaction schedules. Additional information about RTC’s functions is provided in Section 4.4.2. of this ISO Services Tariff.

### **2.153c Real-Time Dispatch (“RTD”)**

A multi-period security constrained dispatch model that co-optimizes to solve simultaneously for Load, Operating Reserves, and Regulation Service on a least-as-bid production cost basis over a fifty, fifty-five or sixty-minute period (depending on when each RTD run occurs within an hour). The Real-Time Dispatch dispatches, but does not commit, Generators, and shall dispatch, but not commit, Demand Side Resources when the ISO has the capability to support their participation. Real-Time Dispatch runs will normally occur every five minutes. Additional information about RTD’s functions is provided in Section 4.4.3 of this ISO

Services Tariff.

Throughout this ISO Services Tariff the term “RTD” will normally be used to refer to both the Real-Time Dispatch and to the specialized Real-Time Dispatch Corrective Action Mode software.

**2.153d Real-Time Dispatch–Corrective Action Mode (“RTD-CAM”)**

A specialized version of the Real-Time Dispatch software that will be activated when it is needed to address unanticipated system conditions. RTD-CAM is described in Section 4.4.4 of this ISO Services Tariff.

Issued by: William J. Museler, President Effective: \_\_\_\_\_, 2004  
Issued on: \_\_\_\_\_ 2003



#### **2.154 Real-Time LBMP**

The LBMPs established through the ISO Administered Real-Time Market.

#### **2.155 Real-Time Market**

The ISO Administered ~~Market~~ Markets for Energy and Ancillary Services resulting from the operation of the ~~Security Constrained Dispatch (“SCD”)~~ RTC and the RTD.

#### **2.155a Real-Time Scheduled Energy Injection**

The quantity of Energy that a Supplier is directed to inject in real-time by the ISO. Unless otherwise directed by the ISO, ~~an On-Dispatch~~ a Dispatchable Supplier's Real-Time Scheduled Energy Injection is equal to its ~~SCD~~ RTD Base Point Signal, or, if it is providing Regulation Service, to its AGC Base Point Signal, and an ~~Off-ISO-Dispatch~~ Committed Fixed or Self-Committed Fixed Supplier's Real-Time Scheduled Energy Injection is equal to its ~~applicable Hour~~ stated output level in real-Ahead Schedule time.

#### **2.156 Reduction or Reduce**

The partial or complete reduction in Non-Firm Transmission Service as a result of transmission Congestion (either anticipated or actual).

#### **2.157 Reference Bus**

The location on the NYS Transmission System relative to which all mathematical quantities, including Shift Factors and penalty factors relating to physical operation, will be calculated. The NYPA Marcy 345 kV transmission substation is designated as the Reference Bus.

Issued on: June 6, 2001

**2.157a Regulation Service Demand Curve**

A series of quantity/price points that defines the maximum Shadow Price for Regulation Service corresponding to each possible quantity of Resources that the ISO may schedule to satisfy a Regulation Service constraint.

A single Regulation Service Demand Curve will apply to both the Day-Ahead Market and the Real-Time Market for Regulation Service. The Shadow Price for Regulation Service shall be used to calculate Regulation Service payments under Rate Schedule 3 of this ISO Services Tariff.

**2.157b Regulation Revenue Adjustment Charge (“RRAC”)**

A charge that will be assessed against certain Generators that are providing Regulation Service under Section 6.0 of Rate Schedule 3 to this ISO Services Tariff.

**2.158c Regulation Revenue Adjustment Payment (“RRAP”)**

A payment that will be made to certain Generators that are providing Regulation Service under Section 6.0 of Rate Schedule 3 to this ISO Services Tariff.

**2.158 Reliability Rules**

Those rules, standards, procedures and protocols developed and promulgated by the NYSRC, including Local Reliability Rules, in accordance with NERC, NPCC, FERC, PSC and NRC standards, rules and regulations and other criteria and pursuant to the NYSRC Agreement.

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001

### **2.159 Required System Capability**

Generation capability required to meet an LSE's peak Load plus Installed Capacity Reserve obligation as defined in the Reliability Rules.

### **2.159a Residual Adjustment**

The ISO's collections from Loads and Transmission Customers, less its payment to generating facilities, less Congestion Rents and Excess Congestion Rents, and Primary Holders of TCCs as defined in Schedule 1.

### **2.160 Residual TCCs**

TCCs converted from Residual Transmission Capacity (as defined in the ISO OATT), each designated from a Point of Injection to a Point of Withdrawal. Residual TCCs are: (1) estimated prior to the Centralized TCC Auction, and allocated among the Transmission Owners utilizing the Interface MW-Mile Methodology; (2) determined during the Centralized TCC Auction that are in addition to the amount estimated before the Auction, and are not allocated but are offered for sale in the Auction; and (3) determined after each Grandfathered TCC and Grandfathered Right expires and the associated Capacity is released to the ISO for sale and is not allocated but is offered for sale in the Auction. The Auction revenues and Excess Congestion Rent revenues associated with Residual TCCs that are not allocated to Transmission Owners by the ISO shall be allocated utilizing the Interface MW-Mile Methodology (See Attachments K and M to the ISO OATT)

•Issued by: William J. Museler, President Effective: January 2, 2001  
Issued on: January 16, 2001  
Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

### **2.160a Residual Transmission Capacity (~~“RTC”~~)**

The transmission capacity determined by the ISO before, during and after the Centralized TCC Auction which is conceptually equal to the following:

$$\del{RTC} \text{Residual Transmission Capacity} = \text{TTC} - \text{TRM} - \text{CBM} - \text{GTR} - \text{GTCC} - \text{ETCNL}$$

~~RTC is Residual Transmission Capacity.~~ The TCCs associated with ~~RTC~~ Residual Transmission Capacity cannot be accurately determined until the Centralized TCC Auction is conducted.

TTC is the Total Transfer Capability that can only be determined after the ~~RTC~~ Residual Transmission Capacity is known.

GTR is the transmission capacity associated with Grandfathered Rights.

GTCC is the transmission capacity associated with Grandfathered TCCs.

ETCNL is the transmission capacity associated with Existing Transmission Capacity for Native Load.

TRM is the Transmission Reliability Margin.

CBM is the Capacity Benefit Margin.

### **2.160b Resource**

An Energy Limited Resource, Generator, Installed Capacity Marketer, ~~Interruptible Load Resource~~, Special Case Resource, Intermittent Power Resource, municipally-owned generation, System Resource, or Control Area System Resource.

### **2.160c Rest of State**

The set of all non-Locality NYCA LBMP Load Zones. As of the 2002-2003 Capability Year, Rest of State includes all NYCA LBMP Load Zones other than LBMP Load Zones J and

K.

Issued by: William J. Museler, President  
Issued on: March 21, 2003

Effective: May 21, 2003

## **2.161 Safe Operations**

Actions which avoid placing personnel and equipment in peril with regard to the safety of life and equipment damage.

### **2.161a Scheduling Differential**

A monetary amount, to be defined by the ISO pursuant to ISO Procedures, that is assigned to, or defines Bid Price limits applicable to, Decremental Bids and Sink Price Cap Bids at Proxy Generator Buses, in order to establish an appropriate scheduling priority for the Transaction or Firm Transmission Service associated with each such Bid. The Scheduling Differential shall be no larger than one dollar (\$1.00).

## **2.162 SCUC**

Security Constrained Unit Commitment, described in Section ~~4.94.2.4~~ 4.2.4 of ~~the~~ this ISO Services Tariff.

Issued by: William J. Museler, President  
Issued on: December 28, 2001

Effective: February 28, 2002



## **2.163 [NOT USED]**

### **2.163a Secondary Holders**

Entities that: (1) purchase TCCs in the Secondary Market; (2) purchase TCCs in a Direct Sale from a Transmission Owner and have not been certified as a Primary Holder by the ISO; or (3) receive an allocation of Native Load TCCs from a Transmission Owner (See Attachment M). A Transmission Customer purchasing TCCs in a Direct Sale may qualify as a Primary Holder with respect to those TCCs purchased in that Direct Sale.

### **2.164 Second Settlement**

The process of: (1) identifying differences between Energy production, Energy consumption or NYS Transmission System usage scheduled in a First Settlement and actual production, consumption, or usage during the Dispatch Day; and (2) assigning financial responsibility for those differences to the appropriate Customers and Market Participants. Charges for Energy supplied (to replace Generation deficiencies or unscheduled consumption), and payments for Energy consumed (to absorb consumption deficiencies or excess Energy supply) or changes in transmission usage will be based on the Real-Time LBMPs.

### **2.165 Secondary Market**

A market in which Primary and Secondary Holders sell TCCs by mechanisms other than through the Centralized TCC Auction or by Direct Sale. Buyers of TCCs in the Secondary

Market shall neither pay nor receive Congestion Rents directly to or from the ISO.

~~**2.166 Security Constrained Dispatch (“SCD”)**~~

~~The allocation of Load to Generators by the ISO through the operation of a computer algorithm which continuously calculates individual Generator loading at minimum Bid cost, balancing Load and scheduled interchange with Generation while meeting all Reliability Rules and Generator performance Constraints consistent with the terms of the ISO Services Tariff~~

**2.166 Reserved for Future Use**

**2.167 Security Coordinator**

An entity that provides the security assessment and Emergency operations coordination for a group of Control Areas. A Security Coordinator must not participate in the wholesale or retail merchant functions.

**2.167a Self-Committed Fixed**

A bidding mode in which a Generator is self-committed and opts not to be Dispatchable over any portion of its operating range.

**2.167b Self-Committed Flexible**

A bidding mode in which a Dispatchable Generator follows Base Point Signals within a portion of its operating range, but self-commits.

**2.168 Self-Supply**

The provision of certain Ancillary Services, or the provision of Energy to replace Marginal Losses by a Transmission Customer using either the Transmission Customer’s own Generators or generation obtained from an entity other than the ISO.

**2.169 Service Agreement**

The agreement, in the form of Attachment A to the Tariff, and any amendments or supplements thereto entered into by a Customer and the ISO of service under the Tariff, or any unexecuted Service Agreement, amendments or supplements thereto, that the ISO unilaterally

Issued by: William J. Museler, President

Effective: January 2, 2001

Issued on: January 16, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

files with the Commission.

### **2.170 Service Commencement Date**

The date that the ISO begins to provide service pursuant to the terms of a Service Agreement, or in accordance with the Tariff.

### **2.171 Settlement**

The process of determining the charges to be paid to, or by, a Customer to satisfy its obligations.

### **2.171a Shadow Price**

~~For purposes of Section 4.12 of this Tariff, the~~ The marginal value of an additional MW of Transfer Capability on relieving a binding transmission particular constraint.

### **2.172 Shift Factor (“SF”)**

A ratio, calculated by the ISO, that compares the change in power flow through a transmission facility resulting from the incremental injection and withdrawal of power on the NYS Transmission System.

### **2.172a Sink Price Cap Bid**

A Bid Price provided by an entity engaged in an Export to indicate the Proxy Generator Bus LBMP below which that entity is willing to either purchase Energy in the LBMP Markets or, in the case of Bilateral Transactions, to accept Transmission Service.

### **2.172b Special Case Resource (“SCR”)**

Loads capable of being interrupted upon demand, and distributed Generators, rated 100 kW or higher, that are not visible to the ISO’s Market Information System and that are subject to

special rules, set forth in Section 5.12.11(a) of this ISO Services Tariff and related ISO Procedures, in order to facilitate their participation in the Installed Capacity market as Installed Capacity Suppliers.

### **2.172c Station Power**

Station Power shall mean the Energy used by a Generator:

1. for operating electric equipment located on the Generator site, or portions thereof, owned by the same entity that owns the Generator, which electrical equipment is used by the Generator exclusively for the production of Energy and any useful thermal energy associated with the production of Energy; and
2. for the incidental heating, lighting, air conditioning and office equipment needs of buildings, or portions thereof, that are:
  - a. owned by the same entity that owns the Generator;
  - b. located on the Generator site; and
  - c. used by the Generator exclusively in connection with the production of Energy and any useful thermal energy associated with the production of Energy.

Station Power does not include any Energy: (i) used to power synchronous condensers; (ii) used for pumping at a pumped storage facility; or (iii) provided during a Black Start restoration by Generators that provide Black Start Capability Service.

### **2.172d Start-Up Bid**

A Bid parameter that identifies the payment a Supplier requires to bring a Generator up to its specified minimum operating level from an offline state or a Demand Side Resource from a level of no Demand Reduction to its specified minimum level of Demand Reduction.

## 2.173 Storm Watch

Actual or anticipated severe weather conditions under which region-specific portions of

Issued by: William J. Museler, President Effective: March 22, 2003

Issued on: September 20, 2002

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. EL01-50-000, issued May 15, 2002, 99 FERC ¶ 61,167 (2002).

the NYS Transmission System are operated in a more conservative manner by reducing transmission transfer limits.

#### **2.174 Strandable Costs**

Prudent and verifiable expenditures and commitments made pursuant to a Transmission Owner's legal obligations that are currently recovered in the Transmission Owner's retail or wholesale rate that could become unrecoverable as a result of a restructuring of the electric utility industry and/or electricity market, or as a result of retail-turned-wholesale customers, or customers switching generation or Transmission Service suppliers.

#### **2.175 Stranded Investment Recovery Charge**

A charge established by a Transmission Owner to recover Strandable Costs.

#### **2.176 Supplemental Resource Evaluation ("SRE")**

A determination of the least cost selection of additional Generators, which are to be committed, to meet changed conditions that may cause the original system dispatch to be inadequate to meet Load and/or reliability requirements.

#### **2.177 Supplier**

A Party that is supplying the Capacity, Demand Reduction, Energy and/or associated Ancillary Services to be made available under the ISO OATT or the ISO Services Tariff, including Generators and Demand Side Resources that satisfy all applicable ISO requirements.

### **2.177a System Resource**

A portfolio of Unforced Capacity provided by Resources located in a single ISO-defined Locality, the remainder of the NYCA, or any single External Control Area, that is owned by or under the control of a single entity, which is not the operator of the Control Area where such Resources are located, and that is made available, in whole or in part, to the ISO.

### **2.177b Tangible Net Worth**

The value, determined by the ISO, of all of a Customer's assets less both: (i) the amount of the Customer's liabilities and (ii) all of the Customer's intangible assets, including, but not limited to, patents, trademarks, franchises, intellectual property, and goodwill.

### **2.178 Third Party Transmission Wheeling Agreements ("Third Party TWAs")**

A Transmission Wheeling Agreement, as amended, between Transmission Owner or between a Transmission Owner and an entity that is not a Transmission Owner associated with the purchase (or sale) of Energy, Capacity, and/or Ancillary Services for the benefit of an entity that is not a Transmission Owner. These agreements are listed in Table 1 of Attachment L to the ISO OATT.

### **2.179 Total Transfer Capability ("TTC")**

The amount of electric power that can be transferred over the interconnected transmission network in a reliable manner.

Issued by: William J. Museler, President  
Issued on: ~~July 6, 2001~~ February 21, 2003

Effective: ~~September 4, 2001~~

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).



**2.180 Transaction**

The purchase and/or sale of Energy or Capacity, or the sale of Ancillary Services.

**2.181 Transfer Capability**

The measure of the ability of interconnected electrical systems to reliably move or

transfer power from one area to another over all transmission facilities (or paths) between those areas under specified system conditions.

### **2.181a Transmission Congestion Contract Component (“TCC Component”)**

A component of the Operating Requirement, calculated in accordance with Article III of Attachment K.

### **2.182 Transmission Congestion Contracts (“TCCs”)**

The right to collect or obligation to pay Congestion Rents in the Day-Ahead Market for Energy associated with a single MW of transmission between a specified POI and POW. TCCs are financial instruments that enable Energy buyers and sellers to hedge fluctuations in the price of transmission.

### **2.183 Transmission Customer**

Any entity (or its designated agent) that receives Transmission Service pursuant to a Service Agreement and the terms of the ISO OATT.

### **2.184 Transmission District**

The geographic area served by the Investor-Owned Transmission Owners and LIPA, as well as the customers directly interconnected with the transmission facilities of the Power Authority of the State of New York.

Issued by: William J. Museler, President

Effective: ~~January 2, 2001~~

Issued on: ~~January 16, 2001~~ ~~February 21, 2003~~ March 6, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER ~~01-3009-00399-4235-002~~, issued ~~December 18, 2000~~ March 14, 2002, 98 FERC ¶ 61,282 (2002).

## **2.185 Transmission Facilities Under ISO Operational Control**

The transmission facilities of the Transmission Owners listed in Appendix A-1 of the ISO/TO Agreement, "Listing of Transmission Facilities Under ISO Operational Control," that are subject to the Operational Control of the ISO. This listing may be amended from time-to-time as specified in the ISO/TO Agreement.

Issued by: William J. Museler, President  
Issued on: February 21, 2003

Effective:

## **2.186 Transmission Facilities Requiring ISO Notification**

The transmission facilities of the Transmission Owners listed in Appendix A-2 of the ISO/TO Agreement, ("Listing of Transmission Facilities Requiring ISO Notification") whose status of operation must be provided to the ISO by the Transmission Owners (for the purposes stated in the ISO Tariffs and in accordance with the ISO Tariffs and ISO/TO Agreement) prior to the Transmission Owners making operational changes to the state of these facilities. This listing may be amended from time-to-time as specified in the ISO/TO Agreement.

### **2.186a Transmission Facility Agreement**

The agreements listed in Attachment L, Table 2 of the ISO OATT governing the use of specific or designated transmission facilities charges all, or a portion, of the costs to install, own, operate, or maintain said transmission facilities, to the customer under the agreement. These agreements may or may not have provisions to provide Transmission Service utilizing said transmission facilities.

### **2.186b Transmission Fund ("T-Fund")**

The mechanism used under the current NYPP Agreement to compensate the Member Systems for providing Transmission Service for economy Energy Transactions over their transmission systems. Each Member System is allocated a share of the economy Energy savings in dollars assigned to the fund that is based on the ratio of their investment in transmission

Issued by: William J. Museler, President

Effective: January 2, 2001

Issued on: January 16, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

facilities to the sum of investments in transmission and generation facilities.

**2.187 Transmission Owner**

The public utility or authority (or its designated agent) that owns facilities used for the transmission of Energy in interstate commerce and provides Transmission Service under the Tariff.

**2.188 Transmission Owner's Monthly Transmission System Peak**

The maximum hourly firm usage as measured in megawatts ("MW") of the Transmission Owner's transmission system in a calendar month.

**2.189 Transmission Reliability Margin ("TRM")**

The amount of TTC reserved by the ISO to ensure the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions.

**2.190 Transmission Service**

Point-To-Point Network Integration or Retail Access Transmission Service provided under the ISO OATT.

**2.191 Transmission Service Charge ("TSC")**

A charge designed to ensure recovery of the embedded cost of a Transmission Owner's transmission system.

## **2.192 Transmission System**

The facilities operated by the ISO that are used to provide Transmission Services under the ISO OATT.

## **2.193 Transmission Usage Charge (“TUC”)**

Payments made by the Transmission Customer to cover the cost of Marginal Losses and, during periods of time when the transmission system is constrained, the marginal cost of Congestion. The TUC is equal to the product of: (1) the LBMP at the POW minus the LBMP at the POI (in \$/MWh); and (2) the scheduled or delivered Energy (in MWh).

## **2.194 Transmission Wheeling Agreement (“TWA”)**

The Agreements listed in Table 1 of Attachment L to the ISO OATT governing the use of specific or designated transmission facilities that are owned, controlled or operated by an entity for the transmission of Energy in interstate commerce.

## **2.194a Unforced Capacity**

The measure by which Installed Capacity Suppliers will be rated, in accordance with formulae set forth in the ISO Procedures, to quantify the extent of their contribution to satisfy the NYCA Installed Capacity Requirement, and which will be used to measure the portion of that NYCA Installed Capacity Requirement for which each LSE is responsible.

### **2.194a1 Unforced Capacity Deliverability Rights**

Unforced Capacity Deliverability Rights (“UDRs”) are rights, as measured in MWs, associated with new incremental controllable transmission projects that provide a transmission

interface to a NYCA Locality (i.e., an area of the NYCA in which a minimum amount of Installed Capacity must be maintained). When combined with Unforced Capacity which is located in an External Control Area or non-constrained NYCA region either by contract or ownership, and which is deliverable to the NYCA interface with the UDR transmission facility, UDRs allow such Unforced Capacity to be treated as if it were located in the NYCA Locality, thereby contributing to an LSE's Locational Installed Capacity Requirement. To the extent the NYCA interface is with an External Control Area the Unforced Capacity associated with UDRs must be deliverable to the Interconnection Point.

#### **2.194a.1 UCAP Component**

A component of the Operating Requirement, calculated in accordance with Article III of Attachment K.

#### **2.194a.2 Unrated Customer**

A Customer that does not currently have a senior long-term unsecured debt rating or issuer rating from Standard & Poor's, Moody's, Fitch, or Dominion, and that has not received an ISO Equivalency Rating.

#### **2.194a.3 Unsecured Credit**

A basis for satisfying part or all of a Customer's Operating Requirement on the basis of the Customer's creditworthiness. The amount of a Customer's Unsecured Credit shall be determined in accordance with Article IV of Attachment K.

Issued by: William J. Museler, President

Effective: ~~December 2, 2002~~

Issued on: ~~October 3, 2002~~ ~~February 21, 2003~~ March 6, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).

**2.194b Virtual Transaction**

Any bid to purchase or offer to sell Energy in the Day-Ahead LBMP market submitted at the load bus specified for Virtual Transactions.

**2.194c West of Central-East (“West” or “Western”)**

An electrical area comprised of Load Zones A, B, C, D, and E, as identified in the ISO Procedures.

Issued by: William J. Museler, President

Effective:

Issued on: February 21, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER01-3009-003, issued March 14, 2002, 98 FERC ¶ 61,282 (2002).



### **2.195 Wheels Through**

Transmission Service, originating in another Control Area, that is wheeled through the NYCA to another Control Area.

### **2.196 Wholesale Market**

The sum of purchases and sales of Energy and Capacity for resale along with Ancillary Services needed to maintain reliability and power quality at the transmission level coordinated together through the ISO and Power Exchanges. A party who purchases Energy, Capacity or Ancillary Services in the Wholesale Market to serve its own Load is considered to be a participant in the Wholesale Market.

Issued by: William J. Museler, President  
Issued on: July 6, 2001

Effective: September 4, 2001

Original Volume No. 2

Sheet Nos. 75 through 80 are reserved for future use.

Issued by: ~~William J. Museler, President~~ Effective: ~~January 2, 2001~~  
Issued on: ~~January 16, 2001~~  
Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ~~ER99-4235-002~~, issued  
December 18, 2000.

## ARTICLE 4

### MARKET SERVICES: RIGHTS AND OBLIGATIONS

#### 4.1 Market Services – General Rules

##### 4.1.1 Overview

Market Services include all services and functions performed by the ISO under this Tariff related to the sale and purchase of Energy, Capacity or Demand Reductions, and the payment to Suppliers who provide Ancillary Services in the ISO Administered Markets.

##### 4.24.1.2 Independent System Operator Authority

The ISO shall provide all Market Services in accordance with the terms of the ISO Services Tariff and the ISO Related Agreements. The ISO shall be the sole point of Application for all Market Services provided in the NYCA. Each Market Participant that sells or purchases Energy, including Demand Side Resources, sells or purchases Capacity, or provides Ancillary Services in the ISO Administered Markets utilizes Market Services and must take service as a Customer under the Tariff.

##### 4.34.1.3 Informational and Reporting Requirements

The ISO shall operate and maintain an OASIS, including a Bid/Post System that will facilitate the posting of Bids to supply Energy, Ancillary Services and Demand Reductions by Suppliers for use by the ISO and the posting of Locational Based Marginal Prices (“LBMP”) and schedules for accepted Bids for Energy, Ancillary Services and Demand Reductions. The Bid/Post System will be used to post schedules for Bilateral Transactions. The Bid Post System also will provide historical data regarding Energy

and Capacity market clearing prices in addition to Congestion Costs.

#### **4.44.1.4 Scheduling Prerequisites**

Each Customer shall be subject to a minimum Transaction size of one (1) megawatt (“MW”) between each Point of Injection and Point of Withdrawal in any given hour. Each Transaction must be scheduled in whole megawatts.

#### **4.54.1.5 Communication Requirements for Market Services**

Customers may utilize a variety of communications facilities to access the ISO’s OASIS and Bid/Post System, including but not limited to, conventional Internet service providers, wide area networks such as NERC net, and dedicated communications circuits. Customers shall arrange for and maintain all communications facilities for the purpose of communication of commercial data to the ISO. Each Customer shall be the customer of record for the telecommunications facilities and services its uses and shall assume all duties and responsibilities associated with the procurement, installation and maintenance of the subject equipment and software.

#### **4.1.6 Customer Responsibilities**

All purchasers in the Day-Ahead or Real-Time Markets who withdraw Energy within the NYCA or at an NYCA Interconnection with another Control Area must obtain Transmission Service under the ISO OATT. All Customers requesting service under the ISO Services Tariff to engage in Virtual Transactions must obtain Transmission Service under the ISO OATT.

All LSEs serving Load in the NYCA must comply with the Installed Capacity requirements set forth in Article 5 of this ISO Services Tariff.

All Customers taking service under the ISO Services Tariff must pay the Market

Administration and Control Area Services Charge, as specified in Rate Schedule 1 of this ISO Services Tariff.

All qualified Demand Reduction Providers that submit Demand Reduction Bids and are scheduled in the SCUC or RTD to reduce demand are expected to reduce their real-time Energy consumption.

All Customers shall comply with all applicable federal, state and local laws, regulations and orders.

#### **4.1.7 Commitment for Local Reliability**

Generating units committed by the ISO for service to ensure local reliability will recover startup and minimum generation costs not recovered in the Dispatch Day. Payment for such costs shall be determined pursuant to the provisions of Attachment C. Such payments shall be recovered by the ISO from the local customers for whose benefit the Generation was committed in accordance with Rate Schedule 1 of the ISO OATT. Payments made by the ISO to those Generators shall be in accordance with Attachment C.

Re-dispatching costs incurred as a result of reductions in Transfer Capability caused by Storm Watch (“Storm Watch Costs”) shall be aggregated and recovered on a monthly basis by the ISO exclusively from Transmission Customers in Load Zone J. The ISO shall calculate Storm Watch Costs by multiplying the real-time Shadow Price of any binding constraint associated with a Storm Watch, by the higher of (a) zero; or (b) the scheduled Day-Ahead flow across the constraint minus the actual real-time flow across the constraint.

#### **4.2 Day-Ahead Markets and Schedules**

##### **4.5a4.2.1 Pre-Scheduled Transaction Requests**

Pre-Scheduled Transaction Requests shall be submitted, pursuant to ISO Procedures, no earlier than eighteen (18) months prior to the Dispatch Day, and shall include hourly

~~transaction~~ Transaction quantities (in MW) at each affected External Interface for each specified Dispatch Day.

Issued by: William J. Museler, President  
Issued on: March 29, 2002

Effective: April 11, 2002

Customers may submit Pre-Scheduled Transaction Requests for scheduling in the Day-Ahead Market. The ISO shall determine, pursuant to ISO Procedures, the amount of Total Transfer Capability at each External Interface to be made available for scheduling. The ISO shall evaluate Pre-Scheduled Transaction Requests in the order in which they are submitted for evaluation until the Pre-Scheduled Transaction Request expires, pursuant to ISO Procedures, prior to the close of the Day-Ahead Market for the specified Dispatch Day. Modification of a Pre-Scheduled Transaction Request shall constitute a withdrawal of the original request and a submission of a new Pre-Scheduled Transaction Request. At the request of a Customer, the ISO shall continue to evaluate a Pre-Scheduled Transaction Request that was not accepted for scheduling in the priority order in which the Request was originally submitted until it is either accepted for scheduling, is withdrawn or expires, pursuant to ISO Procedures, prior to the close of the Day-Ahead Market for the specified Dispatch Day. The ISO shall accept Pre-Scheduled Transaction Requests for scheduling, pursuant to ISO Procedures, provided that there is Ramp Capacity, and Transfer Capability at each affected External Interface, available in the NYCA for each hour requested. If Ramp Capacity or Transfer Capability, on the designated External Interface, is unavailable in the NYCA for any hour of the Pre-Scheduled Transaction Request, the request shall not be scheduled. The ISO shall confirm the Transaction with affected Control Areas, as necessary, pursuant to ISO Procedures and may condition acceptance for scheduling on such confirmation.

The ISO shall provide the requesting Customer with notice, as soon as is practically possible, as to whether the Pre-Scheduled Transaction Request is accepted for scheduling and, if it is not scheduled, the ISO shall provide the reason.

Issued by: William J. Museler, President  
Issued on: July 8, 2002

Effective: April 11, 2002

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER02-1507-000, issued June 6, 2002, 99 FERC ¶ 61,292 (2002).

The ISO shall reserve Ramp Capacity, and Transfer Capability on affected Interfaces, for each Pre-Scheduled Transaction. The ISO shall evaluate requests to withdraw Pre-Scheduled Transactions pursuant to ISO Procedures. The ISO shall submit Pre-Scheduled Transactions to the appropriate LBMP Market for the designated Dispatch Day.

Prescheduled Transactions that are submitted for scheduling in the Day-Ahead Market shall be assigned a Decremental Bid or Sink Price Cap Bid, as appropriate, to provide the highest scheduling priority available.

**4.6-4.2.2 Day-Ahead Load Forecasts, Bids and Bilateral Schedules**

**A. General Customer Forecasting and Bidding Requirements**

By 5 a.m., on the day prior to the Dispatch Day: (i) All LSEs serving Load in the NYCA shall provide the ISO with Day-Ahead and seven (7) day Load forecasts; and (ii)



Customers submitting Bids in the Day-Ahead Market, other than Pre-scheduled Transaction Requests, shall provide the ISO, as appropriate with:

1. Bids to supply Energy, including Bids to supply Energy in Virtual Transactions;
2. Bids to supply Ancillary Services ~~from Generators~~;
3. Requests for Bilateral Transaction schedules;
4. Bids to purchase Energy, including Bids to purchase Energy in Virtual Transactions; and
5. Demand Reduction Bids.

In general, the information provided to the ISO shall include the following:

**B. Load Forecasts -**

The Load forecast shall indicate the predicted level of Load in MW by Point of Withdrawal for each hour of the following seven (7) days.

**C. Bids by Dispatchable and ISO-Committed Fixed Generators to Supply Energy and/or Ancillary Services from Suppliers — ~~Bids from Suppliers~~**

**1. General Rules**

Day-Ahead Bids by Dispatchable Generators or ISO-Committed Fixed Generators shall identify the Capacity, in MW, available for commitment in the Day-Ahead Market (for every hour of the Dispatch Day) and the price(s) at which the Supplier will voluntarily enter into dispatch commitments. Bids to Supply supply Energy from External Suppliers at Proxy Generator Buses shall be priced no lower than the Bid that provides the highest scheduling priority for sales to the relevant LBMP Market plus the product of (i) the Scheduling Differential and (ii) three. ~~The Bids shall identify the resource as Dispatchable (On Dispatch or Off Dispatch) or non-Dispatchable and will identify the Ancillary~~ specify whether a Generator is offering to be

ISO-Committed Fixed, ISO-Committed Flexible or Self-Committed Flexible.

If the Generator is ISO-Committed Flexible or Self-Committed Flexible, and is eligible to provide Regulation Service or Operating Reserves under Rate Schedules 3 and 4 respectively of this ISO Services that are available from Tariff, the Generator's Bid shall specify the resource quantity of Regulation Service it is making available and an emergency response rate that determines the quantity of Operating Reserves that it is capable of providing. The Bids Offers to provide Regulation Service and Operating Reserves must comply with the rules set forth in Rate Schedules 3 and 4 and Attachment D to this ISO Services Tariff. If a Generator that is eligible to provide Operating Reserves does not submit a Day-Ahead Availability Bid for Operating Reserves it shall be assigned a Day-Ahead Availability Bid of zero.

## 2. Bid Parameters

Day-Ahead Bids by Dispatchable or ISO-Committed Fixed Generators, may separately identify variable Energy price Bids, consisting of up to eleven monotonically increasing, constant cost incremental Energy steps, and other parameters described in Attachment D of this ISO Services Tariff and the ISO Procedures. Day-Ahead Bids by ISO-Committed Fixed and ISO-Committed Flexible Generators shall also include Minimum Generation Bids and hourly Start-Up Bids and variable Energy price Bids.

## 3. Upper Operating Limits

All Bids to supply Energy and Ancillary Services must specify a  $UOL_N$  and a  $UOL_E$  for each hour. A Resource's  $UOL_E$  may not be lower than its  $UOL_N$ .

Issued by: William J. Museler, President  
Issued on: December 28, 2001

Effective: February 28, 2002

**D. Bids to Supply Energy from Self-Committed Fixed Generators**

Self-Committed Fixed Generators shall provide the ISO with a schedule of their expected Energy output for each hour. Self-Committed Fixed Generators are responsible for ensuring that any hourly changes in output are consistent with their response rates. Self-Committed Fixed Generators shall also submit UOL<sub>NS</sub>, UOL<sub>ES</sub> and variable Energy Bids for possible use by the ISO in the event that RTD-CAM initiates a maximum generation pickup, as described in Section 4.4.4 of this ISO Services Tariff.

**E. Bids to Supply Energy in Virtual Transactions –**

Customers submitting bids to supply Energy in Virtual Transactions shall identify the Energy, in MW, available in the Day-Ahead Market (for every hour of the Dispatch Day) and the price(s) at which the Customer will voluntarily make it available.

**F. Bids to Purchase Energy in Virtual Transactions –**

Customers submitting bids to purchase Energy in Virtual Transactions shall identify the Energy, in MW, to be purchased in the Day-Ahead Market (for every hour of the Dispatch Day) and the price(s) at which the Customer will voluntarily purchase it.

**G. Bilateral Transaction Schedules – Transactions**

Bilateral Transaction schedules shall identify hourly Transaction quantities (in MW) by Point of Injection and Point of Withdrawal, minimum run times associated with Firm Point to Point Transmission Service, if any, and provide other information (as described in Attachment D). ~~Decremental Bids submitted at Proxy Generator Buses shall be price no lower than the Bid that provides the highest scheduling priority for sales to the LBMP Market plus the product of (i) the Scheduling Differential and (ii) three. Sink Price Cap Bids submitted at Proxy Generator~~

~~Buses shall be priced no higher than the Bid that provides the highest scheduling priority for purchases from the LBMP Market minus the product of (i) the Scheduling Differential and (ii) subject to the bid limitations and pricing rules set forth in Section III.2.0(7) three of Attachment B to this ISO Services Tariff and in Section \_\_\_\_\_ of Attachment J to the ISO~~

OATT.

Issued by: William J. Museler, President  
Issued on: December 28, 2001

Effective: February 28, 2002

**H. Bids to Purchase Energy in the Day-Ahead Market -**

Each purchaser shall submit Bids indicating the hourly quantity of Energy, in MW, that it will purchase from the Day-Ahead Market for each hour of the following Dispatch Day. These Bids shall indicate the quantities to be purchased by Point of Withdrawal. The Bids may identify prices at which the purchaser will voluntarily Curtail the Transaction, provided however that Bids from External purchasers to purchase Energy in the Day-Ahead Market shall be priced no higher than the Bid that provides the highest scheduling priority for purchases in the LBMP Market, minus the product of (i) the Scheduling Differential and (ii) three.

**I. ~~Day-Ahead Bids to Supply Demand Reductions in the Day-Ahead Market~~  
~~or Operating Reserves from Demand Side Resources~~**

Demand Reduction Bids from Demand Reduction Providers shall be in whole megawatts and, as described in Attachment D, shall: (i) identify the amount of demand, in MW, that is available for commitment in the Day-Ahead Market (for every hour of the dispatch day) and (ii) the prices at which the Demand Reduction Provider will voluntarily enter into dispatch commitments to reduce demand. The Bids will identify the minimum period of time that the Demand Reduction Provider is willing to reduce demand. The Bid may separately identify the Demand Reduction Provider's Curtailment Initiation Cost.

When the ISO has the capability to support their participation in the Day-Ahead Operating Reserves markets, Demand Reduction Providers that submit Bids on behalf of Demand Side Resources eligible to supply certain Operating Reserves under Rate Schedule 4 of this ISO Services Tariff, shall specify emergency response rates that shall determine the quantity of Operating Reserves each Demand Side Resource is capable of providing. If no Availability Bid is included in a Demand Reduction Bid for a Demand Side Resource that is eligible to

provide Operating Reserves, that Demand Side Resource will be assigned an Availability Bid of zero.

#### **4.74.2.3 ISO Responsibility to Establish a State-wide Load Forecast**

By 6 a.m., on the day prior to the Dispatch Day, the ISO will verify the Individual Load forecasts from the LSEs. Should the ISO determine that Individual Load forecasts are inconsistent with the ISO's forecast, the ISO will evaluate the discrepancies between them.

By 8 a.m., the ISO will develop and publish its statewide Load forecast on the OASIS. The ISO will use this forecast to perform the SCUC for the Dispatch Day.

Issued by: William J. Museler, President  
Issued on: December 28, 2001

Effective: February 28, 2002

#### ~~4.8 Customer Responsibilities~~

~~All purchasers in the Day Ahead or Real Time Markets who withdraw Energy within the NYCA or at an NYCA Interconnection with another Control Area must obtain Transmission Service under the ISO OATT. All Customers requesting service under the ISO Services Tariff to engage in Virtual Transactions must obtain Transmission Service under the ISO OATT.~~

~~All LSEs serving Load in the NYCA must comply with the Installed Capacity requirements set forth in Article 5 of the ISO Services Tariff.~~

~~All Customers taking service under the ISO Services Tariff must pay the Market Administration and Control Area Services Charge, as specified in Rate Schedule 1.~~

~~All qualified Demand Reduction Providers that submit Demand Reduction Bids and are scheduled in the SCUC to reduce demand are expected to reduce their real time Energy consumption.~~

~~All Customers shall comply with all applicable federal, state and local laws, regulations and orders.~~

#### **4.94.2.4 Security Constrained Unit Commitment (“SCUC”)**

Subject to ISO Procedures and Good Utility Practice, the ISO will develop a SCUC schedule over the Dispatch Day using a computer algorithm which simultaneously minimizes the total Bid Production Cost of: (i) supplying power or Demand Side Resources to satisfy accepted purchasers’ Bids to buy Energy from the Day-Ahead Market; (ii) providing sufficient Ancillary Services to support Energy purchased from the Day-Ahead Market consistent with the Regulation Service Demand Curve and Operating Reserve Demand Curves set forth in Rate Schedules 3 and 4 respectively of this ISO Services Tariff; (iii) committing sufficient Capacity to meet the ISO’s Load forecast and provide associated Ancillary Services; and (iv) meeting Bilateral Transaction schedules submitted Day-Ahead. The computer algorithm shall consider whether accepting Demand Reduction Bids will reduce the total Bid Production Cost. The schedule will include commitment of sufficient Generators and/or Demand Side Resources and/or Interruptible Load to provide for the safe and reliable operation of the NYS Power System. Pursuant to ISO Procedures, the ISO may schedule any Resource to run above its UOL<sub>N</sub> up to the level of its UOL<sub>E</sub>. In cases in which the sum of all Bilateral Schedules and all Day-Ahead Market purchases to serve Load within the NYCA in the Day-Ahead schedule is less than the ISO’s Day-Ahead forecast of Load, the ISO will commit ~~resources~~Resources in addition to the ~~reserves~~Operating Reserves it normally maintains to enable it to respond to contingencies. The purpose of these additional resources is to ensure that sufficient Capacity is available to the ISO in real-time to enable it to



Issued by: William J. Museler, President  
Issued on: April 4, 2001

Effective: May 1, 2001

meet its Load forecast (including associated Ancillary Services). In considering which additional Resources to schedule to meet the ISO's Load forecast, the ISO will evaluate unscheduled Imports, and will not schedule those Transactions if its evaluation determines the cost of those Transactions would effectively exceed a Bid Price cap in the hours in which the Energy provided by those Transactions is required. In addition to all Reliability Rules, the ISO shall consider the following information when developing the SCUC schedule: (i) Load forecasts provided to the ISO and adjusted as required by the ISO; (ii) Ancillary Service

requirements as determined by the ISO given the Regulation Service Demand Curve and Operating Reserves Demand curve referenced above; (iii) Bilateral Transaction schedules; (iv) price Bids and operating Constraints submitted for Generator or Demand Side Resources; (v) price Bids for Ancillary Services; (vi) Decremental Bids and Sink Price Cap Bids for External Transactions; (vii) Ancillary Services in support of Bilateral Transactions; and (viii) Bids to purchase or sell Energy from or to the Day-Ahead Market. External Transactions with minimum run times greater than one hour will only be scheduled at the requested Bid for the full minimum run time. External Transactions with identical Bids and minimum run times greater than one hour will not be prorated. The SCUC schedule shall list the twenty-four (24) hourly injections and withdrawals for: (a) each Customer whose Bid the ISO accepts for the following Dispatch Day; and (b) each Bilateral Transaction scheduled Day-Ahead.

In the development of its SCUC schedule, the ISO may commit and ~~decommit~~ de-commit Generators and Demand Side Resources based upon any flexible Bids, including Minimum Generation ~~and Bids~~, Start-Up Bids ~~and~~, Curtailment Initiation Cost Bids, Energy, and Incremental Bids and Decremental Bids received by the ISO.

The ISO will select the least cost mix of Ancillary Services and Energy from Suppliers, Demand Side Resources, and Customers submitting Virtual Transactions bids. The ISO may substitute higher quality Ancillary Services (i.e., shorter response time) for lower quality Ancillary Services when doing so would result in an overall least bid cost solution. For example, 10-Minute Non-Synchronized Reserve may be substituted for 30-Minute Reserve if doing so would reduce the total bid cost of providing Energy and Ancillary Services.

**4.104.2.5 Reliability Forecast**

In the SCUC program, system operation shall be optimized based on Bids over the Dispatch Day. However, to preserve system reliability, the ISO must ensure that there will be

Issued by: William J. Museler, President  
Issued on: March 29, 2002

Effective: April 11, 2002

sufficient resources available to meet forecasted Load and reserve requirements over the seven (7)-day period that begins with the next Dispatch Day. The ISO will perform a Supplemental Resource Evaluation (“SRE”) for days two (2) through seven (7) of the commitment cycle. If it is determined that a long start-up time Generator is needed for reliability, the ISO shall accept a Bid from the Generator and the Generator will begin its start-up sequence. During each day of the start-up sequence, the ISO will perform an SRE to determine if long start-up time Generators will still be needed as previously forecasted. If the Generator is still needed, it will continue to accrue start-up cost payments on a linear basis. If at any time it is determined that the Generator will not be needed as previously forecasted, the ISO shall order the Generator to abort its start-up sequence, and its start-up payment entitlement will cease at that point.

The ISO will commit to long start-up time Generators to preserve reliability. However, the ISO will not commit resources with long start-up times to reduce the cost of meeting Loads that it expects to occur in days following the next Dispatch Day. Supplemental payments to these Generators, if necessary, will be determined pursuant to the provisions of Attachment C and will be recovered by the ISO under Rate Schedule 1 of the ISO OATT.

The ISO shall perform the SRE as follows: (1) The ISO shall develop a forecast of daily system peak Load for days two (2) through seven (7) in this seven (7)-day period (using LSE forecast data, where appropriate) and add the appropriate reserve margin; (2) the ISO shall then

Issued by: William J. Museler, President  
Issued on: January 16, 2001

Effective: January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

forecast its available Generators for the day in question by summing the Operating Capacity for all Generators currently in operation that are available for the commitment cycle, the Operating Capacity of all other Generators capable of starting on subsequent days to be available on the day in question, and an estimate of the net Imports from External Bilateral Transactions; (3) if the forecasted peak Load plus reserves exceeds the ISO's forecast of available Generators for the day in question, then the ISO shall commit additional Generators capable of starting prior to the day in question (e.g., start-up period of two (2) days when looking at day three (3)) to assure system reliability; (4) in choosing among Generators with comparable start-up periods, the ISO shall schedule Generators to minimize Minimum Generation Bid and Start-Up Bid costs of meeting forecasted peak Load plus Ancillary Services consistent with the Reliability Rules; (5) in determining the appropriate reserve margin for days two (2) through seven (7), the ISO will supplement the normal reserve requirements to allow for forced outages of the short start-up period units (e.g., gas turbines) assumed to be operating at maximum output in the unit commitment analysis for reliability.

The bidding requirements and the Bid tables in Attachment D indicate that Energy Bids are to be provided for days one (1) through seven (7). Energy Bids are binding for day one (1) only for units in operation or with start-up periods less than one (1) day. Minimum ~~generation cost~~ Generation Bids for Generators with start-up periods greater than one (1) day will be binding only for

December 18, 2000.

units that are committed by the ISO and only for the first day in which those units could produce Energy given their start-up periods. For example, ~~minimum generation cost~~ Minimum Generation Bids for a Generator with a start-up period of two (2) days would be binding only for day three (3) because, if that unit begins to start up at any time during day one (1), it would begin to produce Energy forty-eight (48) hours later on day three (3). Similarly, the ~~minimum generation cost~~ Minimum Generation Bids for a Generator with a start-up period of three (3) days would be binding only for day four (4).

#### **4.114.2.6 Post the Day-Ahead Schedule**

By 11 a.m. on the day prior to the Dispatch Day, the ISO shall close the Day-Ahead scheduling process and post on the Bid/Post System the Day-Ahead schedule for each entity that submits a Bid or Bilateral Transaction schedule. All schedules shall be considered proprietary, with the posting only visible to the appropriate scheduling Customer and Transmission Owners subject to the applicable Code of Conduct (See Attachment F to the ISO OATT). The ISO will post on the OASIS the statewide aggregate resources (Day-Ahead Energy schedules and total operating capability forecast) and Load (Day-Ahead scheduled and forecast) for each Load Zone, and the Day-Ahead LBMP prices (including the Congestion Component and the Marginal Losses Component) for each Load Zone in each hour of the upcoming Dispatch Day. The ISO shall conduct the Day-Ahead Settlement based upon the Day-Ahead schedule determined in accordance with this Section. The ISO will



Issued on: September 4, 2001

provide the Transmission Owner with the Load forecast (for seven (7) days) as well as the ISO security evaluation data to enable local area reliability to be assessed. A Transmission Owner may request commitment of additional Generators (including specific output level(s)) if it determines that additional generation is needed to ensure local area reliability in accordance with the Local Reliability Rules. The ISO will use SRE to fulfill a Transmission Owner's request for additional units. Any requests by Transmission Owners to commit ~~generators~~Generators not otherwise committed by the ISO in the Day-Ahead Market will be posted upon receipt on OASIS.

#### ~~4.12~~ **Commitment for Local Reliability**

~~Generating units committed by the ISO for service to ensure local reliability will recover startup and minimum generation costs not recovered in the Dispatch Day. Payment for such costs shall be determined pursuant to the provisions of Attachment C. With the exception of Storm Watch, such payments shall be recovered by the ISO from the local customers for whose benefit the Generation was committed in accordance with Rate Schedule 1 of the ISO OATT. Payments made by the ISO to those Generators shall be in accordance with Attachment C.~~

~~Re-dispatching costs incurred as a result of reductions in Transfer Capability caused by Storm Watch ("Storm Watch Costs") shall be aggregated and recovered on a monthly basis by the ISO exclusively from Transmission Customers in Load Zone J. The ISO shall calculate Storm Watch Costs by multiplying the real time Shadow Price of any binding constraint associated with a Storm Watch by the higher of (a) zero; or (b)~~

#### **4.2.7 Day-Ahead LBMP Market Settlements**

The ISO shall calculate the Day-Ahead LBMPs for each Load Zone and at each

Generator bus and Demand Reduction Bus as described in Attachment B. Each Supplier that bids a Generator into the ISO Day-Ahead Market and is scheduled in the SCUC to sell Energy in the Day-Ahead Market will be paid the product of: (a) the Day-Ahead hourly LBMP at the applicable Generator bus; and (b) the hourly Energy schedule. For each Demand Reduction Provider that bids a Demand Reduction into the Day-Ahead Market and is scheduled in SCUC to reduce demand, the LSE providing Energy service to the Demand Side Resource that accounts for the Demand Reduction shall be paid the product of: (a) the Day-Ahead hourly LBMP at the applicable Demand Reduction Bus; and (b) the hourly demand reduction scheduled Day-Ahead (in MW). In addition, each Demand Reduction Provider that bids a Demand Reduction into the Day-Ahead Market and is scheduled in the SCUC to reduce demand shall receive a Demand Reduction Incentive Payment from the ISO equal to the product of: (a) the Day-Ahead hourly LBMP at the Demand Reduction bus; and (b) the lesser of the actual hourly Demand Reduction or the scheduled hourly Demand Reduction (in MW), provided however that Demand Reduction Incentive Payments shall not be available for Demand Reductions after October 31, 2004. Each LSE that bids into the scheduled Day-Ahead flow across the constraint minus the actual real time flow across the constraint. Day-Ahead Market, including each Customer that submits a Bid for a Virtual Transaction, and has a schedule accepted by the ISO to purchase Energy in the Day-Ahead Market will pay the product of: (a) the Day-Ahead hourly Zonal LBMP at each Point of Withdrawal; and (b) the scheduled Energy at each Point of Withdrawal. Each Customer that submits a Virtual Transaction bid into the ISO Day-Ahead Market and has a schedule accepted by the ISO to sell Energy in a Load Zone in the Day-Ahead Market will receive a payment equal to the product of (a) the Day-Ahead hourly zonal LBMP for that Load Zone; and (b) the hourly scheduled Energy for the Customer in that Load Zone.

2001 July 1, 2003

Issued on: ~~July September 4, 2001~~ May 2, 2003

New York Independent System Operator, Inc.  
FERC Electric Tariff  
Original Volume No. 2

~~Third~~ Fourth Revised Sheet No. 99A  
~~Original~~ Superseding Second ~~Third Revised Sheet No. 95~~ 99A

A zonal floor bid price of \$50/MW hour is applicable to all Day-Ahead Demand Response Resources that bid into the Day-Ahead Energy market.

The ISO shall publish the Day-Ahead Settlement Load Zone LBMPs for each hour in the scheduling horizon (nominally twenty-four (24) hours). The ISO shall then close the Day-Ahead Settlement.

**4.134.3 In-Day Scheduling Changes**

After the Day-Ahead schedule is published, the ISO shall evaluate any events, including, but not limited to, the loss of significant Generators or transmission facilities that may cause the

Issued by: William J. Museler, President  
Issued on: ~~July 2, 2003~~ January 16, 2001

Effective: ~~May 1, 2003~~ January 2, 2001

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER99-4235-002, issued December 18, 2000.

system dispatch to be inadequate to meet the requirements established in the Reliability Rules.

After the Day-Ahead schedule is published, the ISO shall normally grant requests by Capacity Limited Resources and Energy Limited Resources for reductions from ~~their~~ Day-Ahead ~~scheduled upper operating limits~~ schedules to the greater of their bid in upper operating limit or ~~their Normal Upper Operating Limit~~ UOL<sub>NS</sub> for any hour(s) in which they are scheduled above their bid in upper operating limits UOL<sub>NS</sub>. ~~Capacity reduced in this manner must be made available~~ However, the ISO may schedule such Resources to provide Energy in the Real-Time Market in an amount up to its Day-Ahead schedule during the relevant hour(s) at a price no higher than the relevant Day-Ahead offer price and may be scheduled by BME or SCD, upon notice to the Resource, in order when it is needed to prevent or to address an Emergency.

The ISO shall ~~modify, as necessary, the Day~~ commit additional Resources, via SRE, beyond those committed Day-Ahead commitment schedules via SRE, and may, after when necessary to meet Load. After providing notice, the ISO may require all Resources to run above their UOL<sub>NS</sub>, up to the level of their UOL<sub>ES</sub> (pursuant to ISO Procedures), and may raise, as necessary, the upper operating limits UOL<sub>NS</sub>, of Capacity Limited Resources and Energy Limited Resources to their ~~maximum~~ UOL<sub>E</sub> levels, in order to achieve a reliable next-day schedule while minimizing total Bid Production Cost over the remainder of the day to meet Load scheduled Day-Ahead. The ISO may use the following ~~resources~~ additional Resources in order to prevent or address an Emergency: (i) Bids submitted to the ISO that were not previously accepted but were designated by the bidder as continuing to be available; (ii) new Bids from all Suppliers, including neighboring systems; and (iii) cancellation of/or rescheduling of

transmission facility

Issued by: William J. Museler, President  
Issued on: June 29, 2001

Effective: July 31, 2001

maintenance outages when possible. Actions taken by the ISO in performing supplemental commitments will not change any financial commitments that resulted from the Day-Ahead SCUC.

The ISO will not recall Energy produced by a Generator serving External Load to the extent that the Generator is not providing Installed Capacity (and has not indicated that it wishes to qualify as a provider of Installed Capacity) in the NYCA. The ISO shall take action, including manual intervention, to schedule Export Transactions from Generators that have Available Generating Capacity and that have supplied installed Capacity to entities serving Load located in an External Control Area when the External Control Area issues a notification requiring such Generators to supply Energy, provided however, that any Transaction may be Curtailed in response to the invocation of Transmission Loading Relief procedures by the ISO or by operators of other Control Areas. Energy from non-Installed Capacity providers in New York which is being Supplied outside the NYCA could be purchased by the ISO, pursuant to ISO Procedures, should an emergency exist in the NYCA, provided however that Energy from Generators that have supplied installed Capacity to entities serving Load located in an External Control Area that are responding to a notification by the External Control Area that requires such Generators to supply Energy, may not be purchased by the ISO should a capacity resource emergency exist in the NYCA.



#### **4.14—Balancing Market Evaluation (Hour-Ahead)**

~~After the Day Ahead schedule is published, and up to ninety (90) minutes prior to each dispatch hour, Customers may: (i) submit additional Bids to the ISO for Energy from (a) Generators or other resources that are Dispatchable within five (5) minutes and that can be included in, and respond to, the ISO's SCD program and (b) Generators or other resources that provide fixed block Energy (non-Dispatchable) Bids available for the next hour; (ii) lower their Bid Price for Energy from Generators committed by the ISO in the Day Ahead Market; (iii) change their Bid Price for additional Energy from Generators that were committed by the ISO in the Day Ahead Market; (iv) propose new Bilateral Transactions; and (v) submit Bids to purchase Energy from the Real Time Market. Generators with Available Generating Capacity that have supplied installed Capacity to entities serving Load located in an External Control Area shall submit an Hour Ahead Bid priced to provide the highest economic priority available to schedule an Export Transaction and shall supply a quantity of Energy for a given dispatch hour(s), as determined pursuant to ISO Procedures and the requirements of the External Control Area, immediately following the issuance of a notification by the External Control Area that requires such Generators to supply Energy to the External Control Area.~~

~~After the Day Ahead schedule is published, and up to ninety (90) minutes prior to each dispatch hour, the ISO may, after giving notice to affected Capacity Limited Resources and Energy Limited Resources, in order to prevent or address an Emergency, raise their bid in upper~~

~~operating limits to their maximum and make the additional Capacity available to the Balancing Market Evaluation for scheduling. The Bids submitted up to ninety (90) minutes before the dispatch hour shall be referred to as Hour Ahead Bids. Bids for Exports shall be priced no higher than the Bid that provides the highest scheduling priority for purchases in the LBMP Market, minus the product of (i) the Scheduling Differential and (ii) three. Bids for Imports and Incremental Bids for Wheels Through at the Proxy Generator Bus~~

~~designated as the source of the Transaction shall be priced no lower than the Bid that provides the highest scheduling priority for sales to the LBMP Market plus the product of (i) the Scheduling Differential and (ii) three. The ISO will use the BME to determine which Transactions, including External Transactions affecting the NYCA, are permitted in each hour. The ISO shall use the BME no more than ninety (90) minutes before each dispatch hour, pursuant to ISO Procedures, to determine schedules for the Real Time Market and Bilateral Transactions including External Transactions. In developing these schedules, the BME will consider updated Load forecasts and evaluate the impact on reliability of the proposed schedules and commitments. The BME will adjust firm External Transaction schedules based on Incremental Bids, Decremental Bids and Sink Price Cap Bids and all Generator schedules, based~~

Issued by: ~~William J. Museler, President~~ Effective: ~~February 28, 2002~~  
Issued on: ~~December 28, 2001~~

~~New York Independent System Operator, Inc.~~ ~~Third~~ Fourth Revised Sheet No. 98  
~~FERC Electric Tariff~~ ~~Superseding Second~~ Third Revised Sheet No. 98  
~~Original Volume No. 2~~

~~on their Bids, to maintain reliability. The BME will not determine any prices, except, when the special conditions described in Section 4.17 are applicable but will schedule on a least total Bid Production Cost basis. Minimum run time Constraints will be honored by BME only until midnight of the Dispatch Day.~~

#### ~~4.15~~ **ISO Real Time Dispatch**

~~The ISO shall dispatch the NYS Power System consistent with the Bids that are submitted by Suppliers and accepted by the ISO, while satisfying the actual system Load. The ISO may, in order to prevent or address an Emergency, dispatch Energy above Capacity Limited Resources' and Energy Limited Resources' bid in upper operating limits. The ISO shall use Day Ahead and Hour Ahead Bids and shall accommodate Bilateral Transaction schedules and schedule changes to the maximum extent possible consistent with reliability and the Decremental Bids and Sink Price Cap Bids of Bilateral Transaction parties. The ISO shall run a SCD nominally every five (5) minutes to minimize the total Bid Production Costs of meeting the system Load and maintaining scheduled interchanges with adjacent Control Areas over the next SCD interval. Bid Production Costs, for this purpose, will be calculated using accepted Day Ahead and Hour Ahead Bids submitted into the Real Time Market. This dispatch may cause the schedules of Generators providing Energy under Bilateral Transaction schedules to be modified, depending upon the Decremental Bids submitted (or assigned) in association with these schedules.~~

~~The ISO may, in order to prevent or address an emergency, dispatch Energy below a~~

Generator's economic base point. During any interval in which the ISO is calculating Real Time

Issued by: ~~William J. Museler, President~~ Effective: ~~June 10<sup>23</sup>, 2003~~

Issued on: ~~April 23, 2003~~ ~~July 21, 2003~~

~~Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).~~

New York Independent System Operator, Inc. ~~First Revised Sheet No. 98A~~

FERC Electric Tariff ~~Superseding Original Sheet No. 98A~~

Original Volume No. ~~2~~

~~Locational Based Marginal Prices under the procedures established in Pricing Rules I. 2.a., 2.b., 3.a. and 3.b. of Attachment B of this Tariff, a Supplier that owns a generator at a location where one of those pricing rules is being applied that produces less Energy in real time than it would have been economic for it to produce because of such an ISO dispatch shall be eligible to receive a Lost Opportunity Cost Payment ("LOCP"). Provided that the Supplier follows the dispatch directives of the ISO within the tolerance established in Rate Schedule 3 of this Tariff for avoiding persistent undergeneration charges, and the tolerance for Compensible Overgeneration referred to in Section 2.23a of this Tariff, each such Supplier shall receive a LOCP for each SCD interval computed as follows:~~

~~where:~~

- ~~•  $LOCP_{g,i}$  is the Lost Opportunity Cost Payment paid in association with the dispatch of that Supplier's generator  $g$  for SCD interval  $i$ ;~~
- ~~•  $T_i$  is the duration of SCD interval  $i$ ; and~~
- ~~•  $FRES_{g,i}$  and  $RBPC_{g,i}$  are as calculated below.~~

~~$FRES_{g,i}$  is foregone revenue from Energy sales that the Supplier would have realized if generator  $g$  had not been dispatched down during SCD interval  $i$ , after taking other mechanisms~~

Issued by: ~~William J. Museler, President~~ Effective: ~~June 10~~23~~, 2003~~  
Issued on: ~~April 23, 2003~~ ~~July 21, 2003~~  
~~Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued~~  
~~June 20, 2003, 103 FERC ¶ 61,339 (2003).~~  
New York Independent System Operator, Inc. First Revised Sheet No. 98B  
FERC Electric Tariff Superseding Original Sheet No. 98B  
Original Volume No. 2

for compensating the Supplier for these foregone revenues into account. It is calculated using the following equation:

where:

- ~~$LBMP_{g,i}$  is the real time price calculated at the location of generator  $g$  during SCD interval  $i$ ;~~
- ~~$EOP_{g,i}$  is the economic operating point of generator  $g$  during SCD interval  $i$ , which is the quantity at which the marginal Bid Cost for generator  $g$  during SCD interval  $i$ , calculated using the real time offer curve for generator  $g$ , is equal to  $LBMP_{g,i}$ , unless (i) the marginal Bid Cost for generator  $g$  during SCD interval  $i$  is less than  $LBMP_{g,i}$  at all points on the offer curve for generator  $g$ , in which case  $EOP_{g,i}$  shall be set to the maximum operating capacity for generator  $g$  during SCD interval  $i$ , or (ii) the marginal Bid Cost for generator  $g$  during SCD interval  $i$  is greater than  $LBMP_{g,i}$  at all points on the offer curve for generator  $g$ , in which case  $EOP_{g,i}$  shall be set to the minimum generation level for generator  $g$  during SCD interval  $i$ ;~~

- ~~*LOCORP*<sub>*g,i*</sub> is the amount of Capacity below the economic operating point for generator *g* during SCD interval *i*, as described in the preceding definition, for which the Supplier has been compensated for having been dispatched below its~~

Issued by: ~~William J. Museler, President~~ Effective: ~~June 10~~23~~, 2003~~

Issued on: ~~April 23, 2003~~ ~~July 21, 2003~~

~~Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER03-766-000, issued June 20, 2003, 103 FERC ¶ 61,339 (2003).~~

~~economic operating point through Lost Opportunity Cost Payments for Operating Reserves calculated pursuant to Rate Schedule 4 of this Tariff;~~

- ~~•  $DMAP_{g,i}$  is the amount of Capacity below the economic operating point for generator  $g$  during SCD interval  $i$ , as described in the preceding definition, for which the Supplier has been compensated for having been dispatched below its economic operating point through Day Ahead Margin Assurance Payments calculated pursuant to Attachment J of this Tariff; and~~
- ~~•  $BP_{g,i}$  is the greater of: (i) the actual output of generator  $g$  during SCD interval  $i$ ; or (ii) the base point sent by SCD to generator  $g$  for SCD interval  $i$ .~~

~~•  $RBPC_{g,i}$  is the reduction in Bid production cost realized by the Supplier because generator  $g$  was dispatched down during SCD interval  $i$ . It is calculated using the following equation:~~

where:

- ~~•  $RTO_{g,i}$  is the real time offer curve for SCD interval  $i$  submitted for generator  $g$ ;~~
- ~~•  $RTR_{g,i}$  is the real time reference offer curve maintained by Market Monitoring that applies to generator  $g$  for SCD interval  $i$ ; and~~
- ~~• All other variables are as defined above.~~



New York Independent System Operator, Inc. ~~Third Revised Sheet No. 99~~  
FERC Electric Tariff ~~Superseding Second Revised Sheet No. 99~~  
Original Volume No. 2

#### ~~4.16 Day Ahead LBMP Market Transactions~~

~~The ISO shall calculate the Day Ahead LBMPs for each Load Zone and at each Generator bus and Demand Reduction Bus as described in Attachment B. Each Supplier that bids a Generator into the ISO Day Ahead Market and is scheduled in the SCUC to sell Energy in the Day Ahead Market will be paid the product of: (a) the Day Ahead hourly LBMP at the applicable Generator bus; and (b) the hourly Energy schedule. For each Demand Reduction Provider that bids a Demand Reduction into the Day Ahead Market and is scheduled in SCUC to reduce demand, the LSE providing Energy service to the Demand Side Resource that accounts for the Demand Reduction shall be paid the product of: (a) the Day Ahead hourly LBMP at the applicable Demand Reduction Bus; and (b) the hourly demand reduction scheduled Day Ahead (in MW). Each LSE that bids into the ISO Day Ahead Market, including each Customer that submits a bid for a Virtual Transaction, and has a schedule accepted by the ISO to purchase Energy in the Day Ahead Market will pay the product of: (a) the Day Ahead hourly Zonal LBMP at each Point of Withdrawal; and (b) the scheduled Energy at each Point of Withdrawal. Each Customer that submits a Virtual Transaction bid into the ISO Day Ahead Market and has a schedule accepted by the ISO to sell Energy in a Load Zone in the Day Ahead Market will receive a payment equal to the product of (a) the Day Ahead hourly zonal LBMP for that Load Zone; and (b) the hourly scheduled Energy for the Customer in that Load Zone. Each Demand Reduction Provider that bids a Demand Reduction into the Day Ahead Market and is scheduled in the SCUC to reduce demand shall receive a Demand~~

Issued by: \_\_\_\_\_ William J. Museler, President

#### **4.4 Real Time Markets and Schedules**

##### **4.4.1 In-Day Pre-Scheduled Transactions**

Effective: \_\_\_\_\_ July 1, 2003

Issued on: \_\_\_\_\_ May 2, 2003 For any hour in which the operator of an External Control Area informs the ISO that it must call on a Supplier located in the NYCA to provide the External Control Area with Energy, and that Supplier has previously committed to provide installed capacity to the External Control Area, then the ISO shall ensure, to the extent possible, that the required quantity of Energy will flow to the External Control Area in the hour. If the Supplier has already submitted an Export to the External Control Area for evaluation by the ISO, the ISO shall treat the Export as an in-day Pre-Scheduled Transaction. Such a Transaction shall be assigned a Sink Price Cap Bid that provides the highest scheduling priority available. If the Supplier has not previously submitted an Export for evaluation by the ISO it shall immediately submit such a bid into RTC. The ISO shall schedule the proposed Export as an in-day Pre-Scheduled Transaction, with the highest scheduling priority available, unless there is no Ramp Capacity or Transfer Capability on the relevant External Interface, in which case the Export will not be scheduled. To the extent that Ramp Capacity or Transfer Capability are available to support only a portion of an in-day Pre-Scheduled Transaction the ISO will schedule that portion of the Transaction. In-day Pre-Scheduled Transactions will only be subject to Curtailment in the same

limited circumstances as other Pre-Scheduled Transactions.

##### **4.4.2 Real-Time Commitment (“RTC”)**

###### **A. Overview**

RTC will make binding unit commitment and de-commitment decisions for the periods beginning fifteen minutes (in the case of Resources that can respond in ten minutes) and thirty minutes (in the case of Resources that can respond in thirty minutes) after the scheduled posting time of each RTC run, will provide advisory commitment information for the remainder of the two and a half hour optimization period, and will produce binding schedules for External Transactions to begin at the start of each hour. RTC will co-optimize to solve simultaneously for all Load, Operating Reserves and Regulation Service requirements and to minimize the total as-bid production costs over its optimization timeframe. RTC will consider SCUC’s Resource

commitment for the day, load and loss forecasts that RTC itself will produce each quarter hour, binding transmission constraints, and all Real-Time Bids and Bid parameters submitted pursuant to subsection B below.

**B. Bids and Other Requests**

After the Day-Ahead schedule is published and no later than seventy-five (75) minutes before each hour, Customers may submit Real-Time Bids into RTC for real-time evaluation.

**1. Real-Time Bids to Supply Energy and Ancillary Services**

Eligible Customers may submit new or revised Bids to supply Energy, Operating Reserves and/or Regulation Service. Customers that submit such Bids may specify different Bid parameters in RTC than they did Day-Ahead. However, ISO-Committed Fixed Generators and ISO-Committed Flexible Generators may not increase their Minimum Generation Bids or Start-Up Bids for hours in which they received a Day-Ahead Energy schedule. Bids to supply Energy or Ancillary Services shall be subject to the rules set forth in Section 4.2.2 above and in Attachment D to this ISO Services Tariff.

Generators that submitted a Day-Ahead Bid but did not receive a Day-Ahead schedule may freely change their bidding mode in real-time. Generators that received a Day-Ahead schedule may change their bidding mode between Day-Ahead and real-time subject to the following restrictions: (i) Generators that were scheduled Day-Ahead in ISO-Committed Flexible mode may not switch to Self-Committed Fixed bidding mode unless a real-time physical operating problem makes it impossible for them to bid in any other mode; (ii) Generators that were scheduled Day-Ahead Bids in Self-Committed Flexible mode may not switch to ISO-Committed Flexible mode and may not switch to Self-Committed Fixed mode unless a real-time physical operating problem makes it impossible for them to bid in any other mode; (iii)

Generators that were scheduled Day-Ahead in ISO-Committed Fixed mode may not switch to ISO-Committed Flexible or Self-Committed Flexible mode in real-time; and (iv) Generators that were scheduled Day-Ahead Bids in Self-Committed Fixed mode may not switch to ISO-Committed Flexible or Self-Committed Flexible in real-time.

Generators may not submit separate Operating Reserves Availability Bids in real-time and will instead automatically be assigned a real-time Operating Reserves Availability Bid of zero for the amount of Operating Reserves they are capable of providing in light of their response rate (as determined under Rate Schedule 4).

## **2. Bids Associated with Internal and External Bilateral Transactions**

Customers may seek to modify Bilateral Transactions that were previously scheduled Day-Ahead or propose new Bilateral Transactions, including External Transactions, for economic evaluation by RTC. Bids associated with Internal Bilateral Transactions shall be subject to the rules set forth above in Section 4.2.2(G).

Sink Price Cap Bids or Decremental Bids for External Transactions may be submitted into RTC up to seventy five minutes before the hour in which the External Transaction would flow. External Transaction Bids must have a one hour duration, must start and stop on the hour, and must have constant magnitude for the hour. Intra-hour schedule changes, or Bid modifications, associated with External Transactions will not be accommodated.

## **3. Self-Commitment Requests**

Self-Committed Flexible Resources must provide the ISO with schedules of their expected minimum operating points in quarter hour increments. Self-Committed Fixed Resources must provide their expected actual operating points in quarter hour increments.

## **4. Real-Time Demand Reductions**

Demand Reduction Providers shall be permitted to submit Real-Time Energy Bids when the ISO has the capability to support their participation in the real-time Energy market and rules are established to govern their real-time bidding options.

**C. External Transaction Scheduling**

RTC<sub>15</sub> will schedule External Transactions on an hour-ahead basis as part of its development of a co-optimized least-bid cost real-time commitment. RTC will alert the ISO when it appears that scheduled External Transactions need to be reduced for reliability reasons but will not automatically Curtail them. Curtailment decisions will be made by the ISO, guided by the information that RTC provides, pursuant to the rules established by Attachment B of this ISO Services Tariff and the ISO Procedures.

**D. Posting Commitment/De-Commitment and External Transaction Scheduling Decisions**

~~New York Independent System Operator, Inc. Third Revised Sheet No. 99A  
FERC Electric Tariff Superseding Second Third Revised Sheet No  
Except as specifically noted in Section 4.4.4 of this ISO Services Tariff, RTC will make~~

all Resource commitment and de-commitment decisions. RTC will also produce advisory commitment information and advisory real-time prices. RTC will make decisions and post information in a series of fifteen-minute “runs” which are described below.~~99A~~

~~Original Volume No. 2~~

~~Reduction Incentive Payment from the ISO equal to the product of: (a) the Day Ahead hourly LBMP at the Demand Reduction bus; and (b) the lesser of the actual hourly Demand Reduction or the scheduled hourly Demand Reduction (in MW), provided however that Demand Reduction Incentive Payments shall not be available for Demand Reductions after October 31, 2004.~~

~~A zonal floor bid price of \$50/MW hour is applicable to all Day Ahead Demand Response Resources that bid into the Day Ahead Energy market.~~

~~The ISO shall publish the Day Ahead Settlement Load Zone LBMPs for each hour in the scheduling horizon (nominally twenty four (24) hours). The ISO shall then close the Day Ahead Settlement.~~

#### ~~4.17 Real-Time LBMPs~~

RTC<sub>15</sub> will begin at the start of the first hour of the RTC co-optimization period and will post its commitment, de-commitment, and External Transaction scheduling decisions no later than fifteen minutes after the start of that hour. During the RTC<sub>15</sub> run, RTC will:

- (i) Commit Resources with 10-minute start-up times that should be synchronized by the time that the results of the next RTC run are posted so that they will be synchronized and running at their minimum generation levels by that time;
- (ii) Commit Resources with 30-minute start-up times that should be synchronized by the time that the results of the RTC run following the next RTC run are posted so that they will be synchronized and running at their minimum generation levels by that time;
- (iii) De-commit Resources that should be disconnected from the network by the time that the results of the next RTC run are posted so that they will be disconnected by that time;
- (iv) Issue advisory commitment and de-commitment guidance for periods more than thirty minutes in the future and advisory dispatch information; and
- (v) Schedule Pre-Scheduled Transaction and economic External Transactions to run during the entirety of the next hour.

All subsequent RTC runs in the hour, i.e., RTC<sub>30</sub>, RTC<sub>45</sub>, and RTC<sub>00</sub> will begin executing at fifteen minutes before their designated posting times (for example, RTC<sub>30</sub> will begin in the fifteenth minute of the hour), and will take the following steps.

- (i) Commit Resources with ten-minute start-up times that should be synchronized by the time that the results of the next RTC run are posted so that they will be synchronized and running at that time;
- (ii) Commit Resources with thirty-minute start-up times that should be synchronized by the time that the results of the RTC run following the next RTC run are posted so that they will be synchronized and running at that time;
- (iii) De-commit Resources that should be disconnected from the network by the time that the results of the next RTC run are posted so that they will be disconnected at that time;
- (iv) Issue advisory commitment, de-commitment, and dispatching guidance for the period from thirty minutes in the future until the end of the RTC co-optimization period; and
- (v) Either reaffirm that the External Transactions scheduled by RTC<sub>15</sub> to flow in the next hour should flow, or inform the ISO that External Transactions may need to be reduced.

**E. External Transaction Settlements**

The ISO shall RTC<sub>15</sub> will calculate the Real-Time LBMPs at each Generator bus, and LBMP for each Load Zone in each SCD cycle, based on data generated by the SCD program in accordance with the procedures set forth in Attachment Ball External Transactions if constraints at the interface associated with that External Transaction are binding. The ISO shall, however, In addition, RTC<sub>15</sub> will calculate Real-Time LBMPs at Proxy Generator Buses based on data generated by the BME program for any hour in which; (4j)- proposed economic transactions Transactions over the Interface between the NYCA and the External Control Area

~~with which that the~~ Proxy Generator Bus is associated with would exceed the Available Transfer Capability for that Interface; (2~~ii~~) proposed interchange schedule changes pertaining to the NYCA as a whole would exceed any Ramp Capacity limits in place for the NYCA as a whole; or (3~~iii~~) proposed interchange schedule changes pertaining to the Interface between the NYCA and the External Control Area ~~with which that the~~ Proxy Generator Bus is associated with would exceed any Ramp Capacity limit imposed by the ISO for that Interface. Finally, RTC<sub>15</sub> will also calculate Real-Time LBMPs at certain times at Non-Competitive Proxy Generator Buses as is described in Attachment B to this ISO Services Tariff.

Real-Time LBMPs will be calculated by RTD for all other purposes, including for pricing External Transactions during intervals when the interface associated with an External Transaction is not binding pursuant to Section 4.4.3(B).

Issued by: William J. Museler, President Effective: July 1, 2002  
Issued on: May 24, 2002



### **4.4.3 Real-Time Dispatch**

#### **A. Overview**

The Real-Time Dispatch will make dispatching decisions, send Base Point Signals to Internal Generators and, when the ISO has the capability to support their participation, Demand Side Resources, calculate Real-Time Market clearing prices for Energy, Operating Reserves, and Regulation Service, and establish real-time schedules for those products on a five-minute basis, starting at the beginning of each hour. The Real-Time Dispatch will not make commitment decisions and will not consider start-up costs in any of its dispatching or pricing decisions. Each Real-Time Dispatch run will co-optimize to solve simultaneously for Load, Operating Reserves, and Regulation Service and to minimize the total cost of production over its bid optimization horizon (which may be fifty, fifty-five or sixty minutes long depending on where the run falls in the hour.) In addition to producing a binding schedule for the next five minutes, each Real-Time Dispatch run will produce advisory schedules for the remaining four time steps of its bid-optimization horizon (which may be five, ten, or fifteen minutes long depending on where the run falls in the hour.) RTD will use the most recent system information and the same set of Bids and constraints that are considered by RTC.

#### **B. Calculating Real-Time Market LBMPs and Advisory Prices**

With the exceptions noted above in Section 4.4.2(E), RTD shall calculate *ex ante* Real-Time LBMPs at each Generator bus, and for each Load Zone in each RTD cycle, in accordance with the procedures set forth in Attachment B to this ISO Services Tariff. RTD will

also calculate and post advisory Real-Time LBMPs for the next four quarter hours in accordance with the procedures set forth in Attachment B.

**C. Real-Time Scarcity Pricing Rules Applicable to Regulation Service and/or Operating Reserves During EDRP and/or SCR Activations**

Under Sections I.A.2.a and 2.b of Attachment B to this ISO Services Tariff, and Sections of Attachment J to the ISO OATT, the ISO will use special scarcity pricing rules to calculate Real-Time LBMPs during intervals when it has activated the EDRP and/or SCRs in order to avoid reserves shortages. During these intervals, the ISO will also implement special scarcity pricing rules for real-time Regulation Service and Operating Reserves. These rules are set forth in Section 5.1A of Rate Schedule 3 and Section 6.1A of Rate Schedule 4 of this ISO Services Tariff.

Issued by: William J. Museler, President Effective: ~~October 30, 2001~~ June 10, 2003  
Issued on: ~~September 25, 2001~~ April 23, 2003

#### **4.4.4 Real-Time Dispatch – Corrective Action Mode**

When the ISO needs to respond to system conditions that were not anticipated by RTC or the regular Real-Time Dispatch, e.g., the unexpected loss of a major Generator or Transmission line, it will activate the specialized RTD-CAM program. RTD-CAM runs will be nominally either five or ten minutes long, as is described below. Unlike the Real-Time Dispatch, RTD-CAM will have the ability to commit certain Resources. When RTD-CAM is activated, the ISO will have discretion to implement various measures to restore normal operating conditions. These RTD-CAM measures are described below.

The ISO shall have discretion to determine which specific RTD-CAM mode should be activated in particular situations. In addition, RTD-CAM may require all Resources to run above their UOL<sub>NS</sub>, up to the level of their UOL<sub>ES</sub> as is described in the ISO Procedures. Self-Committed Fixed Resources will not be expected to move in response to RTD-CAM Base Point Signals except when a maximum generation pickup is activated.

Except as expressly noted in this Section, RTD-CAM will dispatch the system in the same manner as the normal Real-Time Dispatch.

##### **A. RTD-CAM Operating Modes**

###### **1. Reserve Pickup**

The ISO will enter this RTD-CAM mode when necessary to re-establish schedules when large area control errors occur. When in this mode, RTD-CAM will send 10-minute Base Point Signals and produce schedules for the next ten minutes. RTD-CAM may also commit, or if necessary de-commit, Resources capable of starting or stopping within 10-minutes. The ISO

will continue to optimize for Energy and Operating Reserves, will recognize locational Operating Reserve requirements, but will suspend Regulation Service requirements. It will also release all Resources from their Operating Reserves schedules so that they may use the portion of their operating ranges previously set aside as Operating Reserves to produce Energy or Demand Reductions. If Resources are committed or de-committed in this RTD-CAM mode the schedules for them will be passed to RTC and the Real-Time Dispatch for their next execution.

The ISO will have discretion to classify a reserve pickup as a “large event” or a “small event.” In a small event the ISO will have discretion to reduce Base Point Signals in order to reduce transmission line loadings. The ISO will not have this discretion in large events. As is explained in Section 4.10 below, the distinction also has significance with respect to Resources’ eligibility to receive Bid Production Cost guarantee payments.

## **2. Maximum Generation Pickup**

The ISO will enter this RTD-CAM mode when an Emergency makes it necessary to maximize Energy production in one or more location(s), *i.e.*, Long Island, New York City, East of Total East and/or NYCA-wide. RTD-CAM will produce schedules directing all Generators located in a targeted location to increase production at their emergency response rate up to their  $UOL_E$  level and to stay at that level until instructed otherwise. Security constraints will be obeyed to the extent possible. The ISO will continue to optimize for Energy and Operating Reserves, will recognize locational Operating Reserve requirements, but will suspend its Regulation Service requirements.

## **3. Base Points ASAP -- No Commitments**

The ISO will enter this RTD-CAM mode when changed circumstances make it necessary to issue an updated set of Base Point Signals. Examples of changed circumstances that could

necessitate taking this step include correcting line, contingency, or transfer overloads and/or voltage problems caused by unexpected system events. When operating in this mode, RTD-CAM will produce schedules and Base Point Signals for the next five minutes but will only redispatch Generators that are capable of responding within five minutes. RTD-CAM will not commit or de-commit Resources in this mode.

#### 4. Base Points ASAP -- Commit As Needed

This operating mode is identical to Base Points ASAP – No Commitments, except that it also allows the ISO to commit Generators that are capable of starting within 10 minutes when doing so is necessary to respond to changed system conditions.

#### 5. Re-Sequencing Mode

When the ISO is ready to de-activate RTD-CAM, it will often need to transition back to normal Real-Time Dispatch operation. In this mode, RTD-CAM will calculate normal five-minute Base Point Signals and establish five minute schedules. Unlike the normal RTD-Dispatch, however, RTD-CAM will only look ahead 10-minutes. RTD-CAM re-sequencing will terminate as soon as the normal Real-Time Dispatch software is reactivated and is ready to produce Base Point signals for its entire optimization period.

#### B. Calculating Real-Time LBMPs

Except when it is in reserve pickup mode, when RTD-CAM is activated it shall calculate *ex ante* Real-Time LBMPs at each Generator bus and for each Load Zone every five minutes, in accordance with the procedures set forth in the same manner described above in Section 4.4.3B. When it is in reserve pickup mode, RTD-CAM will calculate *ex ante* Real-Time LBMPs every ten minutes, but shall otherwise follow the procedures set forth above in Section 4.4.3B. In addition, RTD-CAM will calculate supplemental payments for eligible Generators during large

event, but not small event, reserve pickups and maximum generation pickups. These supplemental payments are described in Rate Schedule 4 of this ISO Services Tariff.

**C. Posting Commitment Decisions**

To the extent that RTD-CAM makes commitment and de-commitment decisions they will be posted at the same time as Real-Time LBMPs.

Issued by: William J. Museler, President  
Issued on: ~~December 20, 2002~~ April 1, 2003

Effective: ~~February 18, 2003~~ May 31, 2003

**4.184.4.5      Real-Time Market Settlements**

Transmission Customers taking service under the Tariff, shall be subject to the Real-Time Market Settlement. All withdrawals and injections not scheduled on a Day-Ahead

Issued by:      William J. Museler, President  
Issued on:      December 20, 2002

Effective:      February 18, 2003

basis, including Real-Time deviations from any Bilateral Transaction schedules, shall be subject to the Real-Time Market Settlement. Transmission Customers not taking service under this Tariff shall be subject to balancing charges as provided for under the ISO OATT. Settlements with External Suppliers or External Loads will be based upon hourly scheduled withdrawals or injections. (Real-Time Market Settlements for injections by ~~resources~~ Resources supplying Regulation ~~service~~ Service or Operating Reserves shall follow the rules which are described in Rate ~~Schedule 3.~~ Schedules 3 and 4, respectively.

For the purposes of this section, the scheduled output of each of the following Generators in each SCDRTD interval shall retroactively be set equal to its actual output in that SCDRTD interval:

- (i) Generators providing Energy under contracts executed and effective on or before November 18, 1999 (including PURPA contracts) in which the power purchaser does not control the operation of the supply source but would be responsible for penalties for being off-schedule, with the exception of Generators under must-take PURPA contracts executed and effective on or before November 18, 1999 who have not provided telemetering to their local TO and historically have not been eligible to participate in the NYPP market, which will continue to be treated as TO Load modifiers under the ISO-administered markets;
- (ii) Existing topping turbine Generators and extraction turbine Generators producing electric Energy resulting from the supply of steam to the district



Issued by: William J. Museler, President  
Issued on: February 9, 2001

Effective: April 10, 2001

- steam system located in New York City (LBMP Zone J) in operation on or before November 18, 1999 and/or topping or extraction turbine Generators utilized in replacing or repowering existing steam supplies from such units (in accordance with good engineering and economic design) that cannot follow schedules, up to a maximum total of 365 MW of such units; and
- (iii) Existing intermittent (i.e., non-schedulable) renewable resource Generators in operation on or before November 18, 1999 within the NYCA, plus up to an additional 500 MW of such Generators.

This procedure shall not apply to a Generator at times when it has been scheduled to provide Regulation Service or Operating Reserves.

In subsections A, B, C, D, E and F of this Section ~~4.18,4.4.5~~ references to “scheduled” Energy injections and withdrawals shall encompass injections and withdrawals that are scheduled Day-Ahead, as well as injections and withdrawals that occur in connection with ~~hour~~real-time Bilateral Transactions. In subsections A, C, D and F of this Section ~~4.18,4.4.5~~, references to Energy Withdrawals and Energy Injections shall not include Energy Withdrawals or Energy Injections in Virtual Transactions.

In addition to the real-time Energy market settlement provisions set forth in this Section, Generators that are providing Regulation Service shall also be subject to the Energy settlement rules set forth in Section 6.0 of Rate Schedule 3 of this ISO Services Tariff.

**A. Settlement When Actual Energy Withdrawals Exceed Scheduled Energy Withdrawals Other Than Scheduled or Actual Withdrawals in Virtual Transactions**

When the Actual Energy Withdrawals by a Customer over an ~~SCD~~RTD interval exceed the Energy withdrawals scheduled over that ~~SCD~~RTD interval, the ISO shall charge the Real-Time LBMP for Energy equal to the product of: (a) the Real-Time LBMP calculated in that ~~SCD~~RTD interval for each applicable Load Zone; and (b) the difference between the Actual Energy Withdrawals and the scheduled Energy withdrawals at that Load Zone.

Issued by: William J. Museler, President  
Issued on: September 4, 2001

Effective: October 30, 2001

**B. Settlement for Customers Scheduled To Sell Energy in Virtual Transactions in Load Zones**

The Actual Energy Injection in a Load Zone by a Customer scheduled Day-Ahead to sell Energy in a Virtual Transaction is zero and the Customer shall pay a charge for the Energy imbalance equal to the product of: (a) the Real-Time LBMP calculated in that hour for the applicable Load Zone; and (b) the scheduled Day-Ahead Energy Injection of the Customer for that Hour in that Load Zone.

**C. Settlement When Actual Energy Injections are Less Than Scheduled Energy Injections or Actual Demand Reductions are Less Than Scheduled Demand Reductions**

**(1) General Rule**

When the actual Energy injections by a Supplier over an ~~SCD~~RTD interval are less than the Energy injections scheduled Day-Ahead over that ~~SCD~~RTD interval, the Supplier shall pay a charge for the Energy imbalance equal to the product of: (a) the Real-Time LBMP calculated in that ~~SCD~~RTD interval for the applicable Generator bus; and (b) the difference between the scheduled Day-Ahead Energy injections and the lesser of: (i) the actual Energy injections at that bus; or (ii) the Supplier's Real-Time Scheduled Energy Injection plus any Compensable Overgeneration. If the Energy injections by a Supplier over an ~~SCD~~RTD interval are less than the Energy injections scheduled for the Supplier Day-Ahead, and if the Supplier reduced its Energy injections in response to instructions by the ISO or a Transmission Owner that were issued in order to maintain a secure and reliable dispatch, the Supplier may be entitled to a ~~supplemental payment to maintain its Day-Ahead Margin~~ Assurance Payment, pursuant to Attachment J of this ISO Services Tariff.

**(2) Failed Transactions**

If ~~the an~~ Energy injection scheduled by ~~BMERTC~~ at a Proxy Generator Bus ~~are~~ Curtailed for reasons within ~~fails in the control of a~~ ISO's checkout process after RTC<sub>15</sub>, the Supplier or Transmission Customer ~~then that~~ was scheduled to make the injection will pay the Energy imbalance charge described above in subsection C(1). In addition, if the checkout failure occurred for reasons within the Supplier's or Transmission Customer ~~shall instead pay for the~~ Energy Imbalance in a charge equal's control it will be required to the product of: (a) the higher

of the time-weighted average of the LBMPs calculated for each SCD interval at the pay the “Financial Impact Charge” described below. The ISO’s Market Monitoring and Performance Unit will determine whether an injection failed for reasons within a Supplier’s or Transmission Customer’s control.

If an Energy injection at a Proxy Generator Bus over the dispatch hour, or is determined to have failed for reasons within a Supplier’s or Transmission Customer’s control, the price calculated by Financial Impact Charge will equal: (i) the BME at difference computed by subtracting the Proxy Generator Bus for that hour; and (b) actual real-time Energy injection from the scheduled Energy injection minus amount of the actual Energy injections for Import scheduled by RTC; multiplied by (ii) the dispatch hour—greater of the difference computed by subtracting the RTC price from the RTD price in the relevant interval, or zero.

If a Wheel Through fails for reasons within a Supplier’s or Transmission Customer’s control, the Financial Impact Charge will equal the sum of the Financial Impact Charge described in this subsection and the Financial Impact Charge described below in subsection D(2).

All Financial Impact Charges collected by the ISO shall be used to reduce the charges assessed under Rate Schedule 1 of this ISO Services Tariff.

In the event that the Energy injections

Issued by: William J. Museler, President  
Issued on: December 2, 2002

Effective: January 31, 2003

scheduled by ~~BMERTC~~<sub>15</sub> at a Proxy Generator Bus are ~~curtailed~~Curtailed at the request of the ISO then the Supplier or Transmission Customer that is subjected to the Curtailment, in addition to the charge for Energy Imbalance shall be paid the product (if positive) of: (a) the Real-Time LBMP at the Proxy Generator Bus minus the higher of ~~the its Hour~~real-Aheadtime Bids~~Bid~~ and zero; and (b) the scheduled Energy injections minus the actual Energy injections at that Proxy Generator Bus for the dispatch hour.

**(3) Capacity Limited Resources and Energy Limited Resources**

For any hour in which: (i) a Capacity Limited Resource is scheduled to supply Energy, Operating ~~Reserve Service or regulation~~Reserves, or Regulation Service in the Day-Ahead Market; (ii) the sum of its schedules to provide these services exceeds its bid-in upper operating limit; (iii) the Capacity Limited Resource requests a reduction for Capacity limitation reasons; and (iv) the ISO reduces the Capacity Limited Resource's upper operating limit to a level equal to, or greater than, its bid-in upper operating limit; the imbalance charge for Energy, Operating Reserve Service or Regulation Service imposed on that Capacity Limited Resource for that hour for its Day-Ahead Market obligations above its Capacity

limited upper operating limit shall be equal to the product of: (a) the Day-Ahead price for Energy, Operating reserve Service and Regulation Service; and (b) the Capacity Limited Resource's Day-Ahead schedule for each of these services minus the amount of these services that it has an obligation to supply pursuant to its Capacity limited schedule. When a Capacity Limited Resource's Day-Ahead obligation above its Capacity limited upper operating limit is balanced as described above, any real-time variation from its obligation pursuant to its Capacity limited schedules shall be settled pursuant to the methodology set forth in the first paragraph of this subsection B.

For any day in which: (i) an Energy Limited Resource is scheduled to supply Energy, Operating Reserve Service or Regulation Service in the Day-Ahead Market; (ii) the sum of its schedules to provide these services exceeds its bid-in upper operating limit; (iii) the Energy Limited Resource requests a reduction for Energy limitation reasons; and (iv) the ISO modifies the Energy Limited Resource's Day-Ahead upper operating limit; the imbalance charge imposed upon the Energy Limited Resource shall be equal to the sum of its Energy, Operating Reserve Service and Regulation Service imbalances across all twenty four hours of the Energy day, multiplied by the Real-Time price for each service in each hour at its location. However, if the total margin received by the Energy



Limited Resource for the twenty four hour day is less than its Day-Ahead margin than it shall receive a supplemental payment pursuant to ISO Procedures. An Energy Limited Resource's total margin is equal to the sum of: (a) the Day-Ahead revenue it receives for supplying Energy, Operating Reserve Service and Regulation Service, minus its Day-Ahead Bid to supply these services in each hour of the twenty four hour day; plus (b) the real-time revenue it receives for supplying Energy, Operating Reserve Service and Regulation Service, minus its real-time Bid to supply these services for each hour of the twenty four hour day. An Energy Limited Resource's Day-Ahead margin is equal to the revenue it would have received for providing Energy, Operating Reserve Service and Regulation Service pursuant to its Day-Ahead schedule, minus its Bid to provide these services for the same twenty four hour day.

~~When actual Demand Reduction from a Demand Reduction Provider that is supplied from Local Generators over an hour is less than the Demand Reduction scheduled over that hour, the Demand Reduction Provider shall pay a Demand Reduction imbalance charge equal to the product of: (a) the Real Time LBMP calculated for that hour for the applicable Demand Reduction bus; and (b) the difference between the scheduled Demand Reduction and the actual Demand Reduction at that bus in that hour.~~

**(4) Demand Reductions**

When actual Demand Reduction over an hour from a Demand Reduction Provider that is also the LSE providing Energy service to the Demand Side Resource(s) that produced the reduction, other than Demand Reduction supplied by Local Generators, over an hour is less than the Demand Reduction scheduled over for that hour, that Demand Reduction Provider-LSE shall pay a Demand

Reduction imbalance charge consisting of the product of: (a) the greater of the Day-Ahead LBMP or the Real-Time LBMP for that hour; and (b) the difference between the scheduled Demand Reduction and the actual Demand Reduction in that hour.

When actual Demand Reduction over an hour from a Demand Reduction Provider that is not the LSE providing Energy service to the Demand Side Resource(s) that produced the reduction is less than the Demand Reduction scheduled over that hour, then (1) the LSE providing Energy service to the Demand Reduction Provider's Demand Side Resource(s) shall pay a Demand Reduction imbalance charge equal to the product of (a) the Day-Ahead LBMP calculated for that hour for the applicable Load bus and (b) the difference between the scheduled Demand Reduction and the actual Demand Reduction at that bus in that hour, and (2) the Demand Reduction Provider will pay an amount equal to (a) the product of (i) the higher of the Day-Ahead LBMP or the Real-Time LBMP calculated for that hour for the applicable Load bus, and (ii) the difference between the scheduled Demand Reduction and the actual Demand Reduction at that bus in that hour, and (b) minus the amount paid by the LSE providing service to the Demand Reduction Provider's Demand Side Resource(s) under (1), above.

**D. Settlement When Actual Energy Withdrawals are Less Than Scheduled Energy Withdrawals Other Than Actual or Scheduled Withdrawals in Virtual Transactions**

**(1) General Rules**

When a Customer's Actual Energy Withdrawals over an ~~SCD~~DRTD interval are less than its Energy withdrawals scheduled Day-Ahead over that ~~SCD~~DRTD interval, the Customer



shall be paid the product of: (a) the Real-Time LBMP calculated in that ~~SCD~~RTD interval for each applicable Load Zone; and (b) the difference between the scheduled Energy withdrawals and the Actual Energy Withdrawals in that Load Zone.

**(2) Failed Transactions**

~~If the an Energy withdrawals scheduled by BME withdrawal at a Proxy Generator Bus are curtailed for reasons within the control of a scheduled by RTC fails in the ISO's checkout process after RTC<sub>15</sub>, the Supplier or Transmission Customer then that was scheduled to make the injection will pay or be paid the Energy imbalance charge described above in subsection D(1). In addition, if the checkout failure occurred for reasons within the Supplier's or Transmission Customer instead shall be paid the product of: (a) the lower of the time-weighted average of the LBMPs calculated for each SCD interval at the Proxy Generator Bus over's control it will be required to pay the dispatch hour or the price calculated by the BME at the Proxy Generator Bus for that hour; "Financial Impact Charge" described below. The ISO's Market Monitoring and (b) the difference between the scheduled Energy withdrawals and the Actual Energy Withdrawals for the dispatch hour. Performance Unit will determine whether an injection failed for reasons within a Supplier's or Transmission Customer's control.~~

If an Energy withdrawal at a Proxy Generator Bus is determined to have failed for reasons within a Supplier's or Transmission Customer's control, the Financial Impact Charge will equal: (i) the difference computed by subtracting the actual real-time Energy injection from the amount of the Import scheduled by RTC; multiplied by (ii) the greater of the difference computed by subtracting the RTD price in the relevant interval from the RTC price, or zero.

If a Wheel Through fails for reasons within a Supplier's or Transmission Customer's control, the Financial Impact Charge will equal the sum of the Financial Impact Charge

described in this subsection and the Financial Impact Charge described above in subsection C(2).

All Financial Impact Charges collected by the ISO shall be used to reduce the charges assessed under Rate Schedule 1 of this ISO Services Tariff.

**E. Settlement for Customers Scheduled To Purchase Energy in Virtual Transactions in Load Zones**

The Actual Energy Withdrawal in a Load Zone by a Customer scheduled Day-Ahead to purchase Energy in a Virtual Transaction is zero and the Customer shall be paid the product of: (1) the Real-Time LBMP calculated in that hour for the applicable Load Zone; and (b) the scheduled Day-Ahead Energy Withdrawal of the Customer for that Hour in that Load Zone.

**F. Settlement When Actual Energy Injections Exceed Scheduled Energy Injections**

When actual Energy injections from a Generator over an SCDRTD interval exceeds the Energy injections scheduled Day-Ahead over the SCDRTD interval the Supplier shall be paid the product of: (1) the

Issued by: William J. Museler, President  
Issued on: September 25, 2001 May 2, 2003

Effective: October 30, 2001 July 1, 2003

Real-Time LBMP calculated in that ~~SCD~~RTD interval for the applicable Generator bus and (2) the difference between the lesser of (i) the Supplier's actual Energy injection or (ii) its Real-Time Scheduled Energy Injection for that ~~SCD~~RTD interval, plus any Compensable Overgeneration and the Supplier's scheduled Energy injection over the ~~SCD~~RTD interval, unless the payment that the Supplier would receive for such injections would be negative (i.e., unless the LBMP calculated in that ~~SCD~~RTD interval at the applicable Generator's bus is negative) in which case the Supplier shall be paid the product of: (1) the Real-Time LBMP calculated in that ~~SCD~~RTD interval for the applicable Generator bus and (2) the difference between the Supplier's actual Energy injection for that ~~SCD~~RTD interval and the Supplier's scheduled Energy injection over that ~~SCD~~RTD interval. Suppliers shall not be compensated for Energy in excess of their Real-Time Scheduled Energy Injections, except: (i) ~~for Compensable Overgeneration;~~ (ii) with respect to Generators in the affected area when the ISO initiates a large event reserve ~~pick-up~~, as ~~provided for in the ISO Procedures~~ pickup or a maximum generation pickup under RTD-CAM, or (iii) when a Transmission Owner initiates a reserve ~~pick-up~~ pickup in accordance with a Reliability Rule, including a Local Reliability Rule. When there is no large event reserve ~~pick-up~~ pickup or maximum generation pickup, or when there is a ~~reserve pick-up~~ such an instruction but a Supplier is not located in the area affected by the reserve ~~pick-up~~ or maximum generation pickup, that Supplier shall not be compensated for Energy in excess of its Real-Time Scheduled Energy Injection plus any Compensable Overgeneration. When there is a reserve ~~pick-up~~ or maximum generation pickup, and a Supplier is

located in the area affected by the ~~pick-up~~pickup, and the Supplier was either scheduled to operate as a result of the ~~BME~~in RTD or subsequently was directed to operate by the ISO, that Supplier shall be paid based on the

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001



product of: (1) the Real-Time LBMP calculated in that ~~SCD~~RTD Interval for the applicable Generator bus; and (2) the actual Energy injection minus the Energy injection scheduled Day-Ahead. Generators will not be compensated for Energy produced during their start-up sequence.

**4.194.5      Payments to Suppliers for of Regulation Service (~~“Regulation Service”~~)**

Suppliers of Regulation Service shall receive ~~an Availability~~ a payment that is calculated, pursuant to Rate Schedule 3, ~~as the product of the Regulation Market Clearing Price for regulating Capacity and the regulating Capacity in MW.~~ 3 of this ISO Services Tariff.

~~4.20~~ **4.6 Payments to Suppliers of Reactive Supply and Voltage Support Service (~~“Voltage Support Service”~~)**

Suppliers of Voltage Support Service shall receive a Voltage Support Service payment in accordance with the criteria and formula in Rate Schedule 2.

**4.214.7      Payments to Generators for Operating Reserves**

Suppliers of each type of Operating Reserve will receive ~~Availability~~ payments for each MW of ~~reserve~~ Operating Reserve that they provide, as requested by the ISO, pursuant to Rate Schedule 4. ~~Availability payments shall be determined separately for each of the three categories of Operating Reserves: spinning reserve, 10 minute non-synchronized reserve and 30 minute~~

Issued by:      William J. Museler, President  
Issued on:      June 6, 2001

Effective:      July 25, 2001

~~reserve. The ISO shall pay Suppliers of each category an Availability payment calculated as the product of: (a) the market clearing price for the applicable reserve; and (b) the MW to be provided by the Suppliers, as selected by the ISO, in the associated reserve category.~~

~~Additionally, Class A Units providing spinning reserves shall receive a payment whenever the ISO restricts the output of a Generator for the purpose of creating spinning reserve. The payment that any such provider receives in each SCD interval shall be calculated as the product of: (a) the MW of out-of-merit output reduction as dispatched by the ISO to provide spinning reserves, in that SCD interval; and (b) the maximum Lost Opportunity Cost incurred by any Generator providing spinning reserves in that SCD interval.~~

Additionally, providers of Operating Reserves shall receive a payment for Energy when the ISO requests Energy under a reserve activation. The Energy payment shall be calculated as the product of: (a) the Energy provided; and (b) the Real-Time Market LBMP.

#### **4.224.8      Payments to Generators for Black Start Capability**

Black Start Capability providers shall receive a payment for Black Start Capability as set forth in Rate Schedule 5.

#### **4.9      Day-Ahead Margin Assurance Payments**

If an eligible Supplier is forced to buy out of a Day-Ahead Energy, Regulation Service or Operating Reserve schedule in a manner that reduces its Day-Ahead Margin, that Supplier shall receive a Day-Ahead Margin Assurance Payment. Such payments shall be calculated pursuant to Attachment J of this ISO Services Tariff.

#### **~~4.23~~ Payments for Start-up and Minimum Generation Bids ~~4.10~~ Bid Production Cost Guarantee and**

The ISO shall determine, on a daily basis, if any ~~Supplier~~ ISO-Committed Fixed or ISO-

Committed Flexible Generator or an ISO-Committed Flexible Demand Side Resource that is

committed by the ISO in the Day-Ahead Market will not recover its Minimum Generation

~~and~~ Bid, Start-Up Bid, and Energy Bid Price through Day-Ahead LBMP and Day-Ahead

Ancillary Services revenues. If

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001

the sum of the Minimum Generation ~~and Bid~~, Start-Up Bid ~~plus and~~ the net Energy Bid Price over the twenty-four (24) hour day of ~~an On-Dispatch Supplier, or such~~ a Supplier of Regulation Service, exceeds its Day-Ahead LBMP revenue over the twenty-four (24) hour day, then that Supplier's Day-Ahead LBMP revenue may be augmented by a supplemental payment. ~~If the Minimum Generation and Start-Up Bid, over the twenty-four (24) hour day of an Off-Dispatch Supplier exceeds its Day-Ahead LBMP revenue over the twenty-four (24) hour day, its Day-Ahead LBMP revenue may be augmented by a supplemental~~ Bid Production Cost guarantee payment. However, the amount of the shortfall of ~~an On-Dispatch Supplier, such~~ a Supplier of Regulation Service or an Off-Dispatch Supplier will be compared to the margin that the Supplier receives from being scheduled to provide Ancillary Services that it can provide only if scheduled to operate. The Supplier's Ancillary Service margin is equal to the revenue it would have received for providing these Ancillary Services prior to any reductions based on a failure to provide these services less its Bid to provide these services, if any. If, and only to the extent that, the shortfall exceeds these Ancillary Service margins, the Supplier will receive a payment pursuant to the provisions of Attachment C to this ISO Services Tariff. ~~This process will be repeated separately for Dispatch Day operation.~~ Suppliers bidding for Resources that were not committed by the ISO to operate in a given Dispatch Day, but which continue to operate due to minimum run time Constraints, shall not receive such a supplemental payment.

In addition, the ISO shall: (i) use RTD prices and schedules to calculate and pay real-time Bid Production Cost guarantee payments to ISO-Committed Flexible Generators and, when the ISO has the capability to support their participation in the Real-Time Market, Demand Side Resources that are ISO-committed during the entire Dispatch Day; (ii) use RTD prices and

schedules to calculate and pay real-time Bid Production Cost guarantee payments to any Self-Committed Flexible Generator if its self-committed minimum generation level does not exceed its Day-Ahead schedule at any point during the Dispatch Day; and (iii) use RTC<sub>15</sub> prices and schedules to calculate and pay real-time Bid Production Cost guarantee payments to Customers that schedule Imports. All such payments shall be calculated in the manner described in Attachment C to this ISO Services Tariff. No such payments shall be made to Customers that schedule Exports or Wheels-Through. Except as expressly noted in (ii) above, Self-Committed Flexible and Self-Committed Fixed Resources shall not be eligible for these Bid Production Cost guarantee payments.

An ISO-Committed Flexible Generator that is eligible to receive a Day-Ahead Bid Production Cost guarantee payment but that then self-commits in certain hours, thus becoming ineligible for a real-time Bid Production Cost guarantee payment, shall not be disqualified from receiving a Day-Ahead Bid Production Cost guarantee payment.

Any Supplier that provides Energy during a large event reserve pickup or a maximum generation event, as described in Sections 4.4.4(A) (1) and (2) of this ISO Services Tariff shall be eligible for a Bid Production Cost guarantee payment calculated, under Attachment C, solely for the duration of the large event reserve pickup or maximum generation pickup. Such payments shall be excluded from the ISO's calculation of real-time Bid Production Cost guarantee payments otherwise payable to Suppliers on that Dispatch Day.

Issued by: William J. Museler, President  
Issued on: June 6, 2001

Effective: July 25, 2001

The ISO shall determine, on a daily basis, if any Demand Reduction committed by the ISO in the Day-Ahead Market will not recover its Curtailment Initiation Cost and its Demand Reduction Bid price through Day-Ahead LBMP revenues. If a Demand Reduction Provider's Curtailment Initiation Cost Bid plus its Demand Reduction Bid Price over the twenty-four (24) hour day exceeds its Day-Ahead LBMP revenue over the twenty-four (24) hour day, its Day-Ahead LBMP revenue may be augmented by a supplemental Bid Production Cost guarantee payment pursuant to the provisions of Attachment C.

The ISO shall determine, on a daily basis, if any Special Case Resource committed by the ISO will not recover its Minimum Payment Nomination through LBMP revenues. If a Special Case Resource's Minimum Payment Nomination over the period of requested performance, or four (4) hour period, whichever is greater, exceeds the LBMP revenue received as a Special Case Resource over that same period, its LBMP revenue may be augmented by a supplemental payment pursuant to the provisions of Attachment C. When the Interface between the NYCA and the Control Area in which the Non-Competitive Proxy Generator Bus is located is export constrained due to limits on Available Interface Capacity or Ramp Capacity limits for that Interface in an hour, External Generators and other Suppliers scheduling ImportImports ~~transactions~~ at such Non-Competitive Proxy Generator Bus in that hour will not be eligible for Real-Time shortfall payments for those transactions ~~Transactions~~.

~~Each Generator committed by the ISO in the Real Time Market whose Real Time LBMP payments for Energy produced are less than its Minimum Generation and Start Up Bids to produce that Energy will be compensated by the ISO for the shortfall, in accordance with Attachment C.~~ The ISO shall recover any supplemental payments to Generators through the

Rate Schedule 1 charge under the ISO OATT.

Issued by: William J. Museler, President  
Issued on: ~~December 20, 2002~~ April 1, 2003

Effective: ~~February 18, 2003~~ May 31, 2003

The ISO shall recover supplemental payments and Demand Reduction Incentive Payments to Demand Reduction Providers pursuant to Rate Schedule 1 of its Open Access Transmission Services Tariff, from all Loads excluding exports and Wheels Through on a zonal basis in proportion to the benefits received after accounting for, pursuant to ISO Procedures, Demand Reduction imbalance charges paid by Demand Reduction Providers pursuant to Section 4.18.2.

Issued by: William J. Museler, President  
Issued on: December 20, 2002

Effective: February 18, 2003



**4.244.11 Procurement of Station Power**

A Generator may self-supply Station Power in accordance with the following provisions.

(a) A Generator may self supply Station Power during any calendar month when either:

1. Its net output for that month is positive; or
2. Its net output for that month is negative and the Generator, during the same month, has available at other Generators owned by the same entity that owns the Generator positive net output in an amount at least sufficient to offset fully such negative net output (hereinafter referred to as “remote self-supply of Station Power”). A Generator may not remotely self-supply Station Power from Generators that are owned by its owner’s corporate affiliates.

- i. If an entity owns a portion of a jointly owned Generator it may remotely self-supply its other Generators up to the amount of its entitlement to Energy from the jointly-owned Generator provided that:
  - (A) the entity has the right to call upon that Energy for its own use; and
  - (B) the Energy entitlement is not characterized as a sale from the jointly owned Generator to any of its joint owners.

Issued by: William J. Museler, President  
Issued on: September 20, 2002

Effective: March 22, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. EL01-50-000, issued May 15, 2002, .99 FERC ¶ 61,167 (2002).

- (b) A Generator's net output for the month may be positive because either:
1. The Generator is physically supplying Energy for its Station Power needs, using its own facilities, and without using facilities that are owned by any Transmission Owner; or
  2. The Generator's Station Power requirements for the month including all Energy received for use as Station Power, regardless of its voltage or the metering point of receipt, are less than the amount of Energy that the Generator injects into the New York State Power System for the month.
- (c) The determination of net output under this Section 4.24 shall apply only to determine whether the Generator self-supplied Station Power during the month and will not affect the price of Energy sold or consumed by the Generator at any bus during any hour during the month.
- (d) When a Generator has positive net output for an interval and is delivering Energy into the New York State Power System, it will be paid the Real-Time or Day-Ahead LBMP at its bus, as appropriate, for all of the Energy delivered pursuant to the ISO Services Tariff. Conversely, when a Generator has negative net output for an interval and is self-supplying Station Power from the New York State Power System under Section 4.24.(a).1 or 4.24.(a).2, it will pay the Real-Time or Day-Ahead LBMP, as appropriate, for all of the Energy consumed, pursuant to the ISO Services Tariff.

Issued by: William J. Museler

Effective: March 22, 2003

Issued on: ~~September-December~~ 20, 2002

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. EL01-50-000, issued ~~May 15~~ November 22, 2002, ~~99~~ 101 FERC ¶ 61,230 ~~167~~ (2002).

(e) The ISO will determine the extent to which each affected generator self-supplied its Station Power requirements or obtained Station Power from third-party providers (including corporate affiliates) during the month and will incorporate that determination in its accounting and billing. To the extent that Station Power deliveries from third parties, including corporate affiliates of a Generator's owner, involve an unbundled Transmission Service component, the Generator shall take Transmission Service under Part IV of the ISO OATT unless the Generator has made other arrangements with the local Transmission Owner under the Transmission Owner's retail access tariff.

(f) When a Generator self-supplies Station Power during any month according to Section 4.24.(a).1., above, the Generator will not incur any charges for Transmission Service. When a Generator remotely self-supplies Station Power according to Section 4.24.(a).2 above, the Generator shall, to the extent that Transmission Service is involved, pay for Transmission Service for the quantity of Energy that the Generator remotely self-supplies. Such Transmission Service shall be provided under Part II of the ISO OATT and shall be charged the hourly rate under Schedule 7 of the ISO OATT for Firm Point-to-Point Transmission Service, provided however, that the terms and charges under Schedules 1 through 3, 5, 6, 8 and 9 of the ISO OATT shall not apply to such service.

The amount of Energy that a Generator transmits in conjunction with remote self-supply

of Station Power will not be affected by any other sales, purchases, or transmission of Capacity or Energy by or for such Generator under any other provisions of the ISO OATT or ISO Services Tariff.

(g) A Generator may remotely self-supply Station Power from an External Generator owned by the same entity that owns the Generator only if the External Generator has positive net output during the month and if the Generator has scheduled Imports into the NYCA from the External Generator during the month in an amount at least sufficient to offset fully its negative net output for the month.

Issued by: William J. Museler, President  
Issued on: September 20, 2002

Effective: March 22, 2003

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. EL01-50-000, issued May 15, 2002, 99 FERC ¶ 61,167 (2002).

Document comparison done by DeltaView on Friday, October 10, 2003 13:37:29

<b>Input:</b>	
Document 1	pdocs://washington/376088/1
Document 2	pdocs://washington/378068/1
Rendering set	cathy

<b>Legend:</b>	
<u>Insertion</u>	
<del>Deletion</del>	
<del>Moved from</del>	
<u>Moved to</u>	
Format change	
<del>Moved deletion</del>	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

<b>Statistics:</b>	
	Count
Insertions	546
Deletions	440
Moved from	0
Moved to	0
Format changed	0
<b>Total changes</b>	<b>986</b>