NEW YORK INDEPENDENT SYSTEM OPERATOR

10 Krey Boulevard ♦ Rensselaer, NY 12144

November 24, 2014

By Electronic Delivery

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: ***New York Independent System Operator, Inc.*’s Proposed Tariff Revisions to Establish a Distinct Credit Requirement for External Transactions; Docket No. ER15- ___-___**

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act,[1] the New York Independent System Operator, Inc. (“NYISO”) hereby submits revisions to Attachment K of its Market Administration and Control Area Services Tariff (“Services Tariff”) to better align the credit requirements to the market risk associated with the settlement processes.[2] In the NYISO markets, the initial invoice for a Market Participant’s purchases of Energy and Ancillary Services is based on the Market Participant’s estimate of its load for the invoice period because actual meter data related to its load is not yet available to the NYISO. Through the settlement processes, the NYISO and the Market Participant true-up any differences between the Market Participant’s estimate of its load and its actual load based on meter data. The vast majority of the dollar volume of a Market Participant’s purchases is invoiced on the initial invoice and as such the NYISO’s credit requirements are largely designed to minimize the exposure associated with the initial settlements. However, the NYISO may have credit exposure in certain circumstances, as the credit policy does not currently account for projected true-up exposure resulting from differences in estimated versus actual data on the four-month true-up and final bill close-out settlements. Presently, the NYISO credit requirements only require collateral for projected true-ups for withdrawing Market Participants. By establishing a distinct credit requirement for projected true-ups for all Market Participants, the NYISO can better align the credit requirements for those settlements with the market risk they present. These proposed tariff revisions have, with one abstention, been approved unanimously by the NYISO’s Management Committee.

[1] 16 U.S.C. § 824d (2012).

[2] Capitalized terms that are not otherwise defined herein shall have the meanings specified in Section 2 of the Services Tariff.

I. List of Documents Submitted

The NYISO submits the following documents:

1. This filing letter;

2. A clean version of the proposed revisions to the Services Tariff (Attachment I); and

3. A blacklined version of the proposed revisions to the Services Tariff (Attachment II).

II. Copies of Correspondence

Copies of correspondence concerning this filing should be served on:

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III. Service

The NYISO will send an electronic link to this filing to the official representative of each of its Market Participants, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com.

IV. Summary and Background

The NYISO maintains a settlement process that provides defined time periods for review of settlements data by both Market Participants and the NYISO to allow for the correction of errors by the NYISO within established time periods. The current settlement process begins when the NYISO posts an initial invoice for the service week, the weekly invoice, which invoices the vast majority of the dollar volume of market transactions furnished under the NYISO tariffs.[3] As such the credit requirements are largely designed to protect the NYISO and its Market Participants from the risk of a bad debt loss due to a default on these initial weekly settlements. However, the settlement process continues past this initial weekly settlement to account for differences between estimated and actual data. The NYISO issues a monthly invoice that consists of: (i) a small number of *de minimis* initial settlements; (ii) penalty and dispute amounts; and (iii) true-ups and adjustments of previous settlement amounts as accurate meter data replaces initial estimates.[4] Those true-ups and adjustments consist of: (i) any true-ups to weekly invoices issued in the preceding month; (ii) any true-ups to monthly invoices issued four-months previously; and (iii) any true-ups to previously issued monthly invoices that are being finalized. The NYISO may have credit exposure in certain circumstances, as the credit policy does not currently account for projected true-up exposure resulting from the difference in estimated meter data used for the weekly invoice and actual meter data used for the true-ups in the monthly invoice.

True-up exposure at four-months is largely attributable to the difference between a Market Participant's daily load forecasts, which will determine the Market Participant's initial settlement payment obligations, and its actual payment obligations for any given month based on meter data. Any discrepancies between a Market Participant's forecast of its load and actual load consumption will be trued-up four months after the initial invoice when actual meter data is available to the NYISO. If a Market Participant under-forecasts its load, it is possible that the NYISO may have credit exposure until such time that the prior equivalent capability period credit requirement is calculated, as such credit requirement is based on actual historical load as opposed to an estimate. This exposure results because the NYISO's current credit requirement for Energy and Ancillary Services purchases is based upon the higher of either the Market Participant's past ten days of forecasted load or the Market Participant's activity in the prior year's equivalent capability period.[5] As such, during periods of increased prices like the 2013/2014 winter cold snaps, if a Market Participant is under-forecasting, the current credit requirements may not cover the exposure caused by the under-forecasting until the following equivalent capability period when the credit requirement will be based upon the actual data from that period of increased load or prices. This potential exposure can grow the longer the Market Participant under-forecasts and Market Participants could be exposed to potential bad debt losses as the NYISO may not have sufficient credit support in place to cover this true-up exposure if the Market Participant ultimately defaults.

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[3] See *New York Independent System Operator, Inc.'s, Order 741, Compliance Filing Docket No. RM10-13, Request for Delayed Effective Date, and Request for Limited Waiver – Supplemental Filing,* dated June 30, 2011, Docket No. ER11-3949-000 and 001 (June 11 Compliance Filing).

[4] To minimize the impact on Market Participants' existing settlement systems and processes the monthly invoice includes any weekly invoice components when a shortened week concludes a month. *Id.*

[5] For additional information see *Credit Policy Enhancements Projected True-Up Exposure*, Slides 6-7, Sheri Prevatil, Management Committee, July 30, 2014 Slides 6 and 7, available at: http://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2014-07-30/Agenda%2004_Credit%20Policy%20Enhancement_Projected%20True-Up%20Exposure.pdf.

To address the issue outlined above, the NYISO has considered several options to better manage the implications to the NYISO and its Market Participants in times of volatile market conditions. As noted, Market Participants who consistently under-forecast their load may pose an increased credit risk to the NYISO. In order to account for this exposure, the NYISO has developed a credit policy, described in detail below, by which it would hold secured credit for a Market Participant's projected true-up exposure.

V. Description of Proposed Revisions

The NYISO is proposing to add a new Services Tariff Section 26.4.2.9 to require additional credit support from those Market Participants who consistently under forecast their load to equal, on average, approximately less than 90% of their actual load. The proposed credit requirement will apply only to Market Participants whose four-month true-up amounts, over the most recent four months with both initial and four-month settlement data, are greater than 10% of the initial settlement amounts.[6] Market Participants who forecast their load within 90% of the actual meter data are not likely to have excessive true-up exposure and as such would typically not be subject to this credit requirement. The NYISO used as its starting point for developing this projected true-up exposure credit requirement the existing credit requirement for withdrawing Market Participants under Services Tariff Section 26.13.

The projected true-up exposure will be calculated by first calculating the six-month rolling average percentage credit exposure of: (i) the four-month true-up to initial settlement; and (ii) of final bill closeout true-up to the four-month settlement. Both percentages will have a market-wide percentage cap, as reasonably determined by the NYISO, to prevent unrealistic averages from creating unreasonable credit requirements. The percentage for the four-month true-up will then be multiplied by the initial settlements that have not yet had a four-month true-up settlement, and the percentage for the final bill closeout will be multiplied by the initial settlements that have not had a final bill closeout. Finally, the four-month true-up exposure and final bill close out exposure will be summed to get the total for the projected true-up exposure credit requirement.

The NYISO will notify Market Participants, via an email to each Market Participant's designated credit contact(s), of the market-wide percentage cap at least one week in advance of the effective date of the cap and will provide at least two days notice in advance of any change to the market-wide cap. The cap will also be posted to the NYISO's website and available to Market Participants at any time on the NYISO's Credit Department webpage.

For consistency, the NYISO is also proposing to revise Services Tariff Section 26.13, the credit requirement for withdrawing Market Participants, to use the same proposed credit calculation for all Market Participants who withdraw from the Energy market or withdraw from all NYISO-administered markets.

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[6] The NYISO's review of historical true-up amounts for Market Participants revealed that the load forecasts of Market Participants, on average, are within 3-5% of the actual meter data. Through the stakeholder process, the NYISO and its Market Participants agreed that permitting a variance of up to 10% prior to triggering the applicability of the proposed credit requirement would allow for a reasonable margin of error in Market Participant forecasts while still protecting the NYISO and Market Participants against any significant true-up exposure credit risk.

Finally, to minimize the risk of loss to the NYISO and its Market Participants, the NYISO is proposing to revise Services Tariff Section 26.5 to prohibit a Market Participant from using Unsecured Credit to satisfy its credit requirement for projected true-up exposure or its credit requirement as a withdrawing Market Participant.

VI. Effective Date

The NYISO respectfully requests that the tariff revisions proposed in this filing become effective on February 18, 2015. The NYISO also requests that the Commission issue an order by January 23, 2015 accepting this filing within the 60 day period normally applicable to filings under Section 205 of the Federal Power Act to allow the NYISO to provide Market Participants with sufficient notice that this new credit requirement will be going into effect and the determination for the market-wide percentage cap.[7] This will allow Market Participants to prepare for the potential increase in required collateral. In the event the deployment date for these CMS enhancements is delayed, the NYISO also respectfully requests permission to delay the effective date of the proposed tariff revisions, by up to 45 days, upon the filing of a notice and amended tariff sections with the Commission by February 11, 2015 that indicates the revised effective date.

VII. Requisite Stakeholder Approval

In April 2014, at the Credit Policy Working Group meeting, the NYISO proposed to Market Participants to create a distinct credit requirement for projected true-up exposure. The NYISO then advanced the concept through the stakeholder process in two parts. First, the NYISO projected true-up exposure credit requirement was approved unanimously, with abstentions, at the July, 16 2014 Business Issues Committee meeting and unanimously at the July 30, 2014 Management Committee meeting. Second, an improvement to the concept was approved unanimously with an abstention at both the October 15, 2014 Business Issues Committee meeting and the October 29, 2014 Management Committee meeting.

On November 18, 2014 the NYISO's Board of Directors approved a motion directing the NYISO to file the proposed tariff revisions approved by the Management Committee.

[7] 16 U.S.C. § 824d(d).

VIII. Conclusion

WHEREFORE, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept the proposed tariff changes identified in this filing.

Respectfully submitted,

/s/ Nathan D. Markey
Nathan D. Markey
Attorney
New York Independent System Operator, Inc.

cc: Michael A. Bardee
Gregory Berson
Anna Cochrane
Jignasa Gadani
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Attachment I

26.4 Operating Requirement and Bidding Requirement

26.4.1 Purpose and Function

The Operating Requirement is a measure of a Customer's expected financial obligations to the ISO based on the nature and extent of that Customer's participation in ISO-Administered Markets. A Customer shall be required to allocate Unsecured Credit, where allowed, and/or provide collateral in an amount equal to or greater than its Operating Requirement. Upon a Customer's written request, the ISO will provide a written explanation for any changes in the Customer's Operating Requirement.

The Bidding Requirement is a measure of a Customer's potential financial obligation to the ISO based upon the bids that Customer seeks to submit in an ISO-administered TCC or ICAP auction. A Customer shall be required to allocate Unsecured Credit, where allowed, and/or provide collateral in an amount equal to or greater than its Bidding Requirement prior to submitting bids in an ISO-administered TCC or ICAP auction.

26.4.2 Calculation of Operating Requirement

The Operating Requirement shall be equal to the sum of (i) the Energy and Ancillary Services Component; (ii) the External Transaction Component; (iii) the UCAP Component; (iv) the TCC Component; (v) the WTSC Component; (vi) the Virtual Transaction Component; (vii) the DADRP Component; (viii) the DSASP Component ; and (ix) the Projected True-Up Exposure Component, where:

26.4.2.1 Energy and Ancillary Services Component

The Energy and Ancillary Services Component shall be equal to:

(a) For Customers without a prepayment agreement, the greater of either:

$$\frac{\text{Basis Amount for Energy and Ancillary Services}}{\text{Days in Basis Month}} \times 16$$

- or -

$$\frac{\text{Total Charges Incurred for Energy and Ancillary Services for Previous Ten (10) Days}}{10} \times 16$$

(b) For Customers that qualify for a prepayment agreement, subject to the ISO's credit analysis and approval, and execute a prepayment agreement in the form provided in Appendix K-1, the greater of either:

$$\frac{\text{Basis Amount for Energy and Ancillary Services}}{\text{Days in Basis Month}} \times 3$$

or-

$$\frac{\text{Total Charges Incurred for Energy and Ancillary Services for Previous Ten (10) Days} \times 3}{10}$$

(c) For new Customers, the ISO shall determine a substitute for the Basis Amount for Energy and Ancillary Services for use in the appropriate formula above equal to:

EPL x 720 x AEP

where:

EPL	=	estimated peak Load for the Capability Period; and
AEP	=	average Energy and Ancillary Services price during the Prior Equivalent Capability Period after applying the Price Adjustment.

26.4.2.2 External Transaction Component

The External Transaction Component shall equal the sum of the Customer's (i) Import Credit Requirement, (ii) Export Credit Requirement, (iii) Wheels Through Credit Requirement, and (iv) the net amount owed to the ISO for the settled External Transaction Component Transactions.

26.4.2.2.1 Import Credit Requirement

For a given month, the Import Credit Requirement shall apply to any Customer that Bids to Import in the Day-Ahead Market ("DAM") unless (i) the Customer has at least 50 scheduled Day-Ahead Import Bids in the three-month period ending on the 15th day of the preceding month (or the six-month period ending on the 15th day of the preceding month if the Customer has fewer than 50 scheduled Day-Ahead Import Bids in the immediately preceding three-month period), and (ii) fewer than 25% of the MWhs of such scheduled Day-Ahead Import Bids were settled at a loss to the Customer.

The Import Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Import Bid until posting of the applicable DAM schedule/price.

The ISO will categorize each Import Bid into one of the 18 Import Price Differential (IPD) groups set forth in the IPD chart in Section 26.4.2.2.5 below, as appropriate, based upon the season and time-of-day of the Import Bid. The amount of credit support required in $/MWh that applies to an Import Bid shall equal the 97th percentile level of the following: the hourly average Energy price calculated in the Real-Time Market at the location associated with the Import Bid, minus the Energy price calculated in the DAM at the same location and time, with the dataset used to perform this calculation consisting of all hours that are in the same IPD group as the hour to which the Import Bid applies, and that occurred no earlier than April 1, 2005 nor later than the end of the calendar month preceding the month to which the Import Bid applies. The amount of credit support required in $/MWh shall not be less than $0/MWh.

The credit requirement for each Import Bid shall be calculated as follows:

$$Bid_{MWhB} * \text{Max } (IPD_{CS}, 0)$$

Where:

Bid_{MWhB}	=	the total quantity of MWhs that a Customer Bids to Import in a particular hour and at a particular location.
IPD_{CS}	=	the amount of credit support required, in $/MWh, for an Import Bid as described above, for the location associated with the Import Bid and for the IPD group that contains the hour to which the Import Bid applies.

<u>(2) Upon posting of the applicable DAM schedule/price until completion of the hour Bid in real-time for a DAM Import Bid.</u>

The credit requirement for each Import Bid shall be calculated as follows:

$$SchBid_{MWhI} * \text{Max } (IPD_{CS}, 0)$$

Where:

$SchBid_{MWhI}$	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Import Bid.
IPD_{CS}	=	the amount of credit support required, in $/MWh, for an Import Bid as described above, for the location associated with the Import Bid and for the IPD group that contains the hour to which the Import Bid applies.

<u>(3) Upon completion of the hour Bid in real-time for a DAM Import Bid until the net amount owed to the ISO is determined for settled External Transactions.</u>

The credit requirement for each Import Bid shall be calculated as follows:

$$\text{Max } ((BalPay\$ – DAMPay\$), 0)$$

Where:

$BalPay_{\$}$	=	$(SchBid_{MWhI} – Actual_{MWhI}) * RT\ LBMP_I$
$DAMPay_{\$}$	=	$SchBid_{MWhI} * DAM\ LBMP_I$
$SchBid_{MWhI}$	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour at a particular location as a result of the Customer's Import Bid.

$Actual_{MWhI}$	=	the total quantity of MWhs that is scheduled in real-time associated with the Customer's Import Bid in a particular hour and at a particular location for the hour completed.
DAM $LBMP_I$	=	the Day-Ahead LBMP in a particular hour and at a particular location associated with the Customer's Import Bid.
RT $LBMP_I$	=	the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Import Bid.

26.4.2.2.2 Export Credit Requirement

The Export Credit Requirement shall apply to any Customer that Bids to Export from the DAM or Hour-Ahead Market ("HAM").

The Export Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Export Bid until posting of the applicable DAM schedule/price.

The ISO will categorize each Export Bid into one of the 18 Export Price Differential (EPD) groups set forth in the EPD chart in Section 26.4.2.2.5 below, as appropriate, based upon the season and time-of-day of the Export Bid. The amount of credit support required in $/MWh that applies to an Export Bid shall equal the 97th percentile level of the following: the Energy price calculated in the DAM at the location associated with the Export Bid, minus the hourly average Energy price calculated in the Real-Time Market at the same location and time, with the dataset used to perform this calculation consisting of all hours that are in the same EPD group as the hour to which the Export Bid applies, and that occurred no earlier than April 1, 2005 nor later than the end of the calendar month preceding the month to which the Export Bid applies. The amount of credit support required in $/MWh shall not be less than $0/MWh.

The credit requirement for all DAM Export Bids with the same hour/date and location shall be calculated as follows:

$$(\text{Max}((\text{Max}_N(\text{Bid}_{MWh} * \text{Bid}_{\$E})), (\text{BidMax}_{MWhB} * \text{EPD}_{CS})))$$

Where:

Bid_{MWh}	=	the total quantity of MWhs that a Customer Bids to Export in the DAM in a particular hour and at a particular location at or below each Bid Price.
$\text{Bid}_{\$E}$	=	the Bid Price in $/MWh at which the Customer Bids to purchase the Bid_{MWh} of Exports in a particular hour and at a particular location.
N	=	the set of hourly Export Bid Prices in a particular hour and at a particular location.
BidMax_{MWhB}	=	the total quantity of MWhs that a Customer Bids to Export in the DAM in a particular hour and at a particular location.
EPD_{CS}	=	the amount of credit support required, in $/MWh, for an Export Bid as described above, for the location associated with the Export Bid and for the EPD group that contains the hour to which the Export Bid applies.

(2) Upon posting of the applicable DAM schedule/price until completion of hour Bid in real-time for a DAM Export Bid.

The credit requirement for each Export Bid shall be calculated as follows:

$$(\text{SchBid}_{MWhE} * (\text{Max}(\text{EPD}_{CS}, \text{DAM LBMP}_E)))$$

Where:

SchBid_{MWhE}	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour at a particular location as a result of the Customer's Export Bid.
EPD_{CS}	=	the amount of credit support required, in $/MWh, for an Export Bid as described above, for the location associated with the Export Bid and for the EPD group that contains the hour to which the Export Bid applies.
DAM LBMP_E	=	the Day-Ahead LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

(3) From submission of a HAM Export Bid until completion of the hour Bid in real-time.

i. For non-CTS Interface Bid HAM Bids to Export credit support will be calculated upon submission.

The amount of credit support required in $/MWh that applies to HAM Export Bids in the same hour/date and at the same location shall equal the maximum amount of the payment potentially due to the ISO based on the MWhs of Exports Bid for purchase at each bid price in a particular hour and at a particular location.

The credit requirement for all HAM Export Bids with the same hour/date and location shall be calculated as follows:

$$(\mathrm{Max}_N\,((\mathrm{Max}\,(\mathrm{Bid}_{MWhE}, 0)) * \mathrm{Bid}_{\$E}))$$

Where:

Bid_{MWhE}	=	the total quantity of MWhs that a Customer Bids to Export in the HAM in a particular hour and at a particular location at or below each bid price minus the MWhs of Exports scheduled in the DAM in the same hour at the same location.
$\mathrm{Bid}_{\$E}$	=	the bid price in $/MWh at which the Customer Bids to purchase the Bid_{MWhE} of Exports in a particular hour and at a particular location.
N	=	the set of hourly Export bid prices in a particular hour and at a particular location.

ii. For CTS Interface Bids to Export credit support will be calculated at HAM market close.

The amount of credit support required in $/MWh that applies to such bid shall equal the sum of the time-weighted hourly RTC price for each of the 15-minute intervals within the bid hour, not to be less than zero.

The credit requirement for each CTS Interface Bid to Export shall be calculated as follows:

$$\text{Max}\ (\textstyle\sum_N (RTC_{\$/MWhcts} * Bid_{MWhscts} * \text{Hourly Weight}), 0)$$

Where:

N = each 15-minute interval within the bid hour.

$RTC_{\$/MWhcts}$ = most recently available RTC price for N in $/MWh at the location associated with the CTS Interface Bid to Export

$Bid_{MWhscts}$ = the total quantity of MWhs in a Customer's CTS Interface Bid to Export for N in a particular hour and at a particular location minus the MWhs of Exports scheduled in the DAM in same hour at the same location.

Hourly Weight = 0.25

(4) Upon completion of the hour Bid in real-time for an Export Bid until the net amount owed to the ISO is determined for settled External Transactions.

The amount of credit support required will equal the sum of the Day-Ahead Credit Calculation and Real-Time Credit Calculation for each completed hour.

The credit requirement for each Export Bid shall be calculated as follows:

Day-Ahead Credit Calculation + Real-Time Credit Calculation

The Day-Ahead Credit Calculation only applies to DAM Export Bids and the Real-Time Credit Calculation applies to all HAM Export Bids including HAM Bids associated with a DAM Bid.

Where:

Day-Ahead Credit Calculation = Max (Adjusted Export Day-Ahead Credit Calculation, 0)

Adjusted Export Day-Ahead Credit Calculation = the credit requirement calculated in accordance with section 26.4.2.2.2(2) minus the Balancing Payment.

Balancing Payment = Max $((SchBid_{MWhE} – Actual_{MWhE}), 0) * RT\ LBMP_E$

$SchBid_{MWhE}$ = the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Export Bid.

$Actual_{MWhE}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Export Bid in a particular hour and at a particular location for the hour completed.

$RT\ LBMP_E$ = the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

Real-Time Credit Calculation = $Max\ ((Max\ ((Actual_{MWhE} – SchBid_{MWhE}),0) * RT\ LBMP_E), 0)$

$Actual_{MWhE}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Export Bid in a particular hour and at a particular location for the hour completed.

$SchBid_{MWhE}$ = the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Export Bid.

$RT\ LBMP_E$ = the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

26.4.2.2.3 Wheels Through Credit Requirement

The Wheels Through Credit Requirement shall apply to any Customer that Bids to Wheel Through in the DAM or HAM.

The Wheels Through Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Wheels Through Bid until posting of the applicable DAM schedule/price.

The amount of credit support required in \$/MWh that applies to the DAM Wheels Through Bid shall equal the maximum payment potentially due to the ISO based on the Customer's Bid Prices on the Bid curve.

The credit requirement for each Wheels Through Bid shall be calculated as follows:

$$Max\ (Max_N\ (BidPt_{MWhN} * Bid\$_{\$/MWhN}),0)$$

Where:

N = each Bid Price on the Bid curve.

$BidPt_{MWhN}$ = the MWhs associated with the Bid Price on the Bid curve.

$Bid\$_{\$/MWhN}$ = the amount that the customer is willing to pay for congestion in \$/MWh on the Bid curve associated with the Customer's Wheels Through Bid.

(2) Upon posting of the applicable Wheels Through DAM schedule/price until completion of the hour Bid in real-time.

The credit requirement for each DAM Wheels Through Bid shall be calculated as follows:

$$\text{Max}\left(SchBid_{MWhW} * \left(\text{DAM LBMP}_{POW} - \text{DAM LBMP}_{POI}\right), 0\right)\right)$$

Where:

$SchBid_{MWhW}$ = the total quantity of MWhs scheduled in the DAM as a result of the Customer's Bid to schedule Wheels Through.

DAM $LBMP_{POI}$ = the Day-Ahead LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.

DAM $LBMP_{POW}$ = the Day-Ahead LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

(3) Upon creation of a HAM Wheels Through Bid until the completion of the hour Bid in real-time.

The amount of credit support required in \$/MWh that applies to HAM Wheels Through Bid shall equal the price of the maximum value of exposure based on bid prices on the Bid curve.

The credit requirement for each Wheels Through Bid shall be calculated as follows:

$$\text{Max}\left(\text{Max}_N \left(\text{Max}\left(BidPt_{MWhW}, 0\right) * Bid\$_{\$/MWhN}\right), 0\right)$$

Where:

N = each bid price on the Bid curve.

$BidPt_{MWhW}$ = the MWhs associated with the bid price on the Bid curve minus the MWhs of the DAM Bid with same hour/date, location and Bid transaction ID.

$Bid\$_{\$/MWhN}$ = the amount that the customer is willing to pay for congestion in $/MWh on the Bid curve associated with the Customer's Wheels Through Bid.

(4) Upon completion of the hour Bid in real-time for a Wheels Through Bid until the net amount owed to the ISO is determined for settled External Transactions.

The amount of credit support required will equal the sum of the Day-Ahead Credit Calculation and Real-Time Credit Calculation for each completed hour. The credit requirement for each Wheels Through Bid shall be calculated as follows:

Day-Ahead Credit Calculation + Real-Time Credit Calculation

The Day-Ahead Credit Calculation only applies to DAM Wheels Through Bids and the Real-Time Credit Calculation applies to all HAM Wheels Through Bids including HAM Bids associated with a DAM Bid.

Where:

Day-Ahead Credit Calculation = Max (Adjusted Wheels Through Day-Ahead Credit Calculation, 0)

Adjusted Wheels Through Day-Ahead Credit Calculation = the credit requirement calculated in section 26.4.2.2.3(2) minus the Balancing Payment.

Balancing Payment = Max $((SchBid_{MWhW} - Actual_{MWhW}), 0) * (RT\ LBMP_{POW} - RT\ LBMP_{POI})$

$SchBid_{MWhW}$ = the total quantity of MWhs that is scheduled in the DAM as a result of the Customer's Wheels Through Bid.

$Actual_{MWhW}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Wheels Through Bid for the hour completed.

$RT\ LBMP_{POI}$ = the Real-Time LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.

$RT\ LBMP_{POW}$ = the Real-Time LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

$$\text{Real-Time Credit Calculation} = \text{Max}\left(\text{Max}\left(\left(\text{Actual}_{MWhW} - \text{SchBid}_{MWhW}\right), 0\right) * \left(\text{RT LBMP}_{POW} - \text{RT LBMP}_{POI}\right), 0\right)$$

SchBid_{MWhW}	=	the total quantity of MWhs that is scheduled in the DAM as a result of the Customer's Bid to Wheel Through Energy.
Actual_{MWhW}	=	the total quantity of MWhs that is scheduled in real-time associated with the Customer's Wheels Through Bid for the hour completed.
RT LBMP_{POI}	=	the Real-Time LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.
RT LBMP_{POW}	=	the Real-Time LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

26.4.2.2. 4 Calculation of Price Differentials

Import Price Differential (IPD) Groups

Summer	**For each Proxy Generator Bus**
HB07–10	IPD-1
HB11–14	IPD-2
HB15–18	IPD-3
HB19–22	IPD-4
Weekend/ Holiday (HB07–22)	IPD-5
Night (HB23–06)	IPD-6
Winter	
HB07–10	IPD-7
HB11–14	IPD-8
HB15–18	IPD-9
HB19–22	IPD-10
Weekend/ Holiday (HB07–22)	IPD-11
Night (HB23–06)	IPD-12
Rest-of-Year	
HB07–10	IPD-13
HB11–14	IPD-14
HB15–18	IPD-15
HB19–22	IPD-16
Weekend/ Holiday (HB07–22)	IPD-17
Night (HB23–06)	IPD-18

Where:

Summer = May, June, July, and August

Winter	=	December, January, and February
Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

Export Price Differential (EPD) Groups

Summer	**For each Proxy Generator Bus**
HB07–10	EPD-1
HB11–14	EPD-2
HB15–18	EPD-3
HB19–22	EPD-4
Weekend/ Holiday (HB07–22)	EPD-5
Night (HB23–06)	EPD-6
Winter	
HB07–10	EPD-7
HB11–14	EPD-8
HB15–18	EPD-9
HB19–22	EPD-10
Weekend/ Holiday (HB07–22)	EPD-11
Night (HB23–06)	EPD-12
Rest-of-Year	
HB07–10	EPD-13
HB11–14	EPD-14
HB15–18	EPD-15
HB19–22	EPD-16
Weekend/ Holiday (HB07–22)	EPD-17
Night (HB23–06)	EPD-18

Where:

Summer	=	May, June, July, and August
Winter	=	December, January, and February

Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

26.4.2.3 UCAP Component

The UCAP Component shall be equal to the total of all amounts then-owed (billed and unbilled) for UCAP purchased in the ISO-administered markets.

26.4.2.4 TCC Component

The TCC Component shall be equal to the greater of either the amount calculated in accordance with Section 26.4.2.4.1 or Section 26.4.2.4.2 below.

26.4.2.4.1 TCC Award Calculation

The sum of the amounts calculated in accordance with the appropriate per TCC term-based formula listed below for TCC purchases less the amounts calculated in accordance with the appropriate per TCC term-based formula listed below for TCC sales; *provided however,* that upon initial award of a TCC until the ISO receives payment for the TCC (or payment for the first year of a two-year TCC), the NYISO will hold the greater of the payment obligation for the TCC or the credit requirement for the TCC calculated in accordance with this Section 26.4.2.4.1.

26.4.2.4.1.1 Two-Year TCCs:

(1) upon initial award of a two-year TCC until completion of the final round of the current two-year Sub-Auction, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:
the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt	=	market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC.

Second Year:

$$+1.909\sqrt{e^{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*Zone\ J\ +\ 1.1607*Zone\ K}}$$

where:

Pijt	=	market clearing price of that two-year TCC minus the market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(2) upon completion of the final round of the current two-year Sub-Auction until completion of the final round of the current one-year Sub-Auction, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:
the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below
where:

Pijt	=	market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

Second Year:

$$+1.909\sqrt{e^{10.9729 + .6514\left(\ln\left(\left|p_{ijt}\right| + e\right)\right) + .6633 * Zone\ J + 1.1607 * Zone\ K}}$$

where:

Pijt = market clearing price of a two-year TCC in the final round of the current two-year Sub-Auction with the same POI and POW combination as the two-year TCC minus the market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(3) upon completion of the final round of the current one-year Sub-Auction until the ISO receives payment for the second year of the two-year TCC, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the two-year TCC

Second Year:

$$+1.909\sqrt{e^{10.9729 + .6514\left(\ln\left(\left|p_{ijt}\right| + e\right)\right) + .6633 * Zone\ J + 1.1607 * Zone\ K}}$$

where:

Pijt = market clearing price of a two-year TCC in the final round of the current two-year Sub-Auction with the same POI and POW combination as the two-year TCC minus the market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the two-year TCC

(4) upon ISO receipt of payment for the second year of the two-year TCC until commencement of year two of the two-year TCC, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior equivalent Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

<u>Second Year</u>:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior equivalent Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(5) upon commencement of year two of a two-year TCC until commencement of the final six months of the two-year TCC:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the most recently completed one-year Sub-Auction with the same POI and POW combination as the two-year TCC

(6) upon commencement of the final six months of a two-year TCC until commencement of the final month of the two-year TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the most recently completed six-month Sub-Auction with the same POI and POW combination as the two-year TCC

(7) upon commencement of the final month of a two-year TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the two-year TCC

26.4.2.4.1.2 One-Year TCCs:

(1) upon initial award of a one-year TCC until completion of the final round of the current one-year Sub-Auction:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

(2) upon completion of the final round of the current one-year Sub-Auction until commencement of the final six months of the one-year TCC:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the one-year TCC

(3) upon commencement of the final six months of a one-year TCC until commencement of the final month of the one-year TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the most recently completed six-month Sub-Auction with the same POI and POW combination as the one-year TCC

(4) upon commencement of the final month of a one-year TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the one-year TCC

26.4.2.4.1.3 Six-Month TCCs:

(1) upon initial award of a six-month TCC until completion of the final round of the

current six-month Sub-Auction:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

(2) upon completion of the final round of the current six-month Sub-Auction until

commencement of the final month of a six-month TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the current six-month Sub-Auction with the same POI and POW combination as the one-year TCC

(3) upon commencement of the final month of a six-month TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the six-month TCC

26.4.2.4.1.4 One-Month TCCs:

upon initial award of a one-month TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

26.4.2.4.1.5 TCC formulas:

for one-year TCCs, representing a 5% probability curve:

$$+1.909\ \sqrt{e^{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*Zone\ +\ 1.1607*Zone\ K}}\ -\ 1\ P_{ijt}$$

for six-month TCCs, representing a 3% probability curve:

$+2.565$ - 1 P_{ijt}

for one-month TCCs, representing a 3% probability curve:

$$+2.221\ \sqrt{e^{11.2682+0.3221(\ln(\left|p_{ijt}\right|+e))+1.3734*ZoneJ+2.001*ZoneK+Month}}\ -\ 1\ P_{ijt}$$

where:

Pijt	=	market clearing price of i to j TCC in round t of the auction in which the TCC was purchased;
Zone J	=	1 if TCC sources or sinks but not both in Zone J, zero otherwise;
Zone K	=	1 if TCC sources or sinks but not both in Zone K and does not source or sink in Zone J, 0 otherwise;
Summer	=	1 for six-month TCCs sold in the spring auction, 0 otherwise; and
Month	=	the following values:

January	=	0
February	=	-0.0201
March	=	0
April	=	0
May	=	0.8181
June	=	0.2835
July	=	0.5201
August	=	0.7221
September	=	0
October	=	0.32
November	=	-0.7681
December	=	0

Provided, however, for purposes of determining the credit holding requirement for a Fixed Price TCC, the market clearing price shall be replaced by the fixed price associated with that Fixed Price TCC, as determined in Section 19.2.1 or Section 19.2.2, of Attachment M as appropriate, of the OATT.

Further, when calculating "Pijt" in Section 26.4.2.4.1, in the event there is no market clearing price for a two-year, one-year, six-month, or one-month TCC in the appropriate prior Capability Period Centralized TCC Auction with the same POI and POW combination as the awarded two-year, one-year, six-month, or one-month TCC, as appropriate, then the market clearing price shall equal a proxy price, assigned by the ISO, for a TCC with like characteristics.

Further, the NYISO may adjust any of the Zone K multipliers in Section 26.4.2.4.1 if, for TCCs of the same duration, the percentage ratio between collateral and congestion rents for Zone K TCCs deviates from the percentage ratio for Zone J TCCs by more than ten percent (10.0%).

26.4.2.4.2 Mark-to-Market Calculation

The projected amount of the Primary Holder's payment obligation to the NYISO, if any, considering the net mark-to-market value of all TCCs in the Primary Holder's portfolio, as defined for these purposes, according to the formula below:

$$\sum_{n \in N} \left\{ \frac{NAPn}{90} \times RDn \right\} + \sum \mathrm{ACR}n$$

where:

NAP = the net amount of Congestion Rents between the POI and POW composing each TCC_n during the previous ninety days

RD = the remaining number of days in the life of TCC_n; *provided, however,* that in the case of Grandfathered TCCs, RD shall equal the remaining number of days in the life of the longest duration TCC sold in an ISO-administered auction then outstanding;

N = the set of TCCs held by the Primary Holder; and

ACR = the net amount owed to the ISO for Congestion Rents between the POI and POW composing each TCC_n.

26.4.2.5 WTSC Component

The WTSC Component shall be equal to the greater of either:

$$\frac{\text{Greatest Amount Owed for WTSC During Any Single Month in the Prior Equivalent Capability Period}}{\text{Days in Month}} \times 50$$

- or –

$$\frac{\text{Total Charges Incurred for WTSC Based Upon the Most Recent Monthly Data Provided by the Transmission Owner}}{\text{Days in Month}} \times 50$$

26.4.2.6 Virtual Transaction Component

The Virtual Transaction Component shall be equal to the sum of the Customer's (i) Virtual Supply credit requirement ("VSCR") for all outstanding Virtual Supply Bids, plus (ii) Virtual Load credit requirement ("VLCR") for all outstanding Virtual Load Bids, plus (iii) net amount owed to the ISO for settled Virtual Transactions.

Where:

$VSCR = \sum (VSG_{MWh} \times VSG_{CS})$

$VLCR = \sum (VLG_{MWh} \times VLG_{CS})$

Where:

VSG_{MWh} = the total quantity of MWhs of Virtual Supply that a Customer Bids for all Virtual Supply positions in the Virtual Supply group

VSG_{CS} = the amount of credit support required in $/MWh for the Virtual Supply group

VLG_{MWh} = the total quantity of MWhs of Virtual Load that a Customer Bids for all Virtual Load positions in the Virtual Load group

VLG_{CS} = the amount of credit support required in $/MWh for the Virtual Load group

The ISO will categorize each Virtual Supply Bid into one of the 72 Virtual Supply groups set forth in the Virtual Supply chart below, as appropriate, based upon the season, Load Zone, and time-of-day of the Virtual Supply Bid. The amount of credit support required in $/MWh for a Virtual Transaction in a particular Virtual Supply group shall equal the price differential between the Energy price in the Day-Ahead Market and the Energy price in the Real-Time Market, at the 97th percentile, based upon all possible Virtual Supply positions in the Virtual Supply group for the period of time from April 1, 2005, through the end of the preceding calendar month.

The ISO will categorize each Virtual Load Bid into one of the 30 Virtual Load groups set forth in the Virtual Load chart below, as appropriate, based upon the season, Load Zone, and time-of-day of the Virtual Load Bid. The amount of credit support required in $/MWh for a Virtual Transaction in a particular Virtual Load group shall equal the price differential between the Energy price in the Day-Ahead Market and the Energy price in the Real-Time Market, at the 97th percentile, based upon all possible Virtual Load positions in the Virtual Load group for the period of time from April 1, 2005, through the end of the preceding calendar month.

If a Customer submits Bids for both Virtual Load and Virtual Supply for the same day, hour, and Load Zone, then for those Bids, until such time as those Bids have been evaluated by SCUC, only the greater of the Customer's (i) VLCR for the total MWhs Bid for Virtual Load, or (ii) VSCR for the total MWhs Bid for Virtual Supply will be included when calculating the Customer's Virtual Transaction Component. After evaluation of those Bids by SCUC, then only the credit requirement for the net position of the accepted Bids (in MWhs of Virtual Load or Virtual Supply) will be included when calculating the Customer's Virtual Transaction Component.

Virtual Supply Groups

Summer	Load Zones A–F	Load Zones G–I	Load Zone J	Load Zone K

HB07–10	VSG-1	VSG-7	VSG-13	VSG-19
HB11–14	VSG-2	VSG-8	VSG-14	VSG-20
HB15–18	VSG-3	VSG-9	VSG-15	VSG-21
HB19–22	VSG-4	VSG-10	VSG-16	VSG-22
Weekend/ Holiday (HB07–22)	VSG-5	VSG-11	VSG-17	VSG-23
Night (HB23–06)	VSG-6	VSG-12	VSG-18	VSG-24
Winter				
HB07–10	VSG-25	VSG-31	VSG-37	VSG-43
HB11–14	VSG-26	VSG-32	VSG-38	VSG-44
HB15–18	VSG-27	VSG-33	VSG-39	VSG-45
HB19–22	VSG-28	VSG-34	VSG-40	VSG-46
Weekend/ Holiday (HB07–22)	VSG-29	VSG-35	VSG-41	VSG-47
Night (HB23–06)	VSG-30	VSG-36	VSG-42	VSG-48
Rest-of-Year				
HB07–10	VSG-49	VSG-55	VSG-61	VSG-67
HB11–14	VSG-50	VSG-56	VSG-62	VSG-68
HB15–18	VSG-51	VSG-57	VSG-63	VSG-69
HB19–22	VSG-52	VSG-58	VSG-64	VSG-70
Weekend/ Holiday (HB07–22)	VSG-53	VSG-59	VSG-65	VSG-71
Night (HB23–06)	VSG-54	VSG-60	VSG-66	VSG-72

Where:

Summer	=	May, June, July, and August
Winter	=	December, January, and February
Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

Virtual Load Groups

Summer	Load Zones A–F	Load Zones G–I	Load Zone J	Load Zone K
HB07–10	VLG-1	VLG-4	VLG-8	VLG-12

HB11–14	VLG-2	VLG-5	VLG-9	VLG-13
HB15–18	VLG-2	VLG-6	VLG-10	VLG-14
HB19–22	VLG-1	VLG-4	VLG-8	VLG-15
Weekend/ Holiday (HB07–22)	VLG-3	VLG-4	VLG-8	VLG-16
Night (HB23–06)	VLG-1	VLG-7	VLG-11	VLG-12
Winter				
HB07–10	VLG-17	VLG-19	VLG-21	VLG-23
HB11–14	VLG-17	VLG-20	VLG-21	VLG-23
HB15–18	VLG-18	VLG-19	VLG-22	VLG-24
HB19–22	VLG-17	VLG-20	VLG-21	VLG-24
Weekend/ Holiday (HB07–22)	VLG-17	VLG-20	VLG-21	VLG-23
Night (HB23–06)	VLG-17	VLG-20	VLG-21	VLG-23
Rest-of-Year				
HB07–10	VLG-25	VLG-26	VLG-27	VLG-29
HB11–14	VLG-25	VLG-26	VLG-28	VLG-29
HB15–18	VLG-25	VLG-26	VLG-28	VLG-30
HB19–22	VLG-25	VLG-26	VLG-27	VLG-30
Weekend/ Holiday (HB07–22)	VLG-25	VLG-26	VLG-27	VLG-30
Night (HB23–06)	VLG-25	VLG-26	VLG-27	VLG-29

Where:

Summer = May, June, July, and August

Winter = December, January, and February

Rest-of-Year = March, April, September, October, and November

HB07–10 = weekday hours beginning 07:00–10:00

HB11–14 = weekday hours beginning 11:00–14:00

HB15–18 = weekday hours beginning 15:00–18:00

HB19–22 = weekday hours beginning 19:00– 22:00

Weekend/Holiday = weekend and holiday hours beginning 07:00–22:00

Night = all hours beginning 23:00– 06:00

26.4.2.7 DADRP Component

The DADRP Component shall be equal to the product of: (i) the Demand Reduction Provider’s monthly average of MWh of accepted Demand Reduction Bids during the prior summer Capability Period or, where the Demand Reduction Provider does not have a history of accepted Demand Reduction bids, a projected monthly average of the Demand Reduction Provider's accepted Demand Reduction bids; (ii) the average Day-Ahead LBMP at the NYISO Reference Bus during the prior summer Capability Period; (iii) twenty percent (20%); and (iv) a factor of four (4). The ISO shall adjust the amount of Unsecured Credit and/or collateral that a Demand Reduction Provider is required to provide whenever the DADRP Component increases or decreases by ten percent (10%) or more.

26.4.2.8 DSASP Component

The DSASP Component is calculated every two months based on the Demand Side Resource's Operating Capacity available for the scheduling of such services, the delta between the Day-Ahead and hourly market clearing prices for such products in the like two-month period of the previous year, and the location of the Demand Side Resource. Resources located East of Central-East shall pay the Eastern reserves credit support requirement and Resources located West of Central-East shall pay the Western reserves credit support requirement. The DSASP Component shall be equal to:

(a) For Demand Side Resources eligible to offer only Operating Reserves, the product of (i) the maximum hourly Operating Capacity (MW) for which the Demand Side Resource may be scheduled to provide Operating Reserves, (ii) the amount of Eastern or Western reserves credit support, as appropriate, in \$/MW per day, and (iii) three (3) days.

Where:

The amount of Eastern reserves credit support (\$/MW/day) for each two-month period	=	Eastern Price Differential for the same two-month period in the previous year * the higher of two (2) or the maximum number of daily Reserve Activations for the same two-month period in the previous year

The amount of Western reserves credit support ($/MW/day) for each two-month period	=	Western Price Differential for the same two-month period in the previous year * the higher of two (2) or the maximum number of daily Reserve Activations for the same two-month period in the previous year
Two-month periods:	=	January and February March and April May and June July and August September and October November and December
MCP_{SRh}	=	Hourly, time-weighted Market Clearing Price for Spinning Reserves
Eastern Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Real-Time MCPSRh for Eastern Spinning Reserves for hours in the two-month period of the previous year when the Real-Time MCPSRh for Eastern Spinning Reserves exceeded the Day-Ahead MCPSRh for Eastern Spinning Reserves
Western Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Real-Time MCPsSRh for Western Spinning Reserves for hours in the two-month period of the previous year when the Real-Time MCPSRh for Western Spinning Reserves exceeded the Day-Ahead MCPSRh for Western Spinning Reserves
Reserve Activations	=	The number of reserve activations at the 97th percentile of daily reserve activations for days in each two month period of the previous year that had reserve activations.

(b) For Demand Side Resources eligible to offer only Regulation Service, or Operating Reserves and Regulation Service, the product of (i) the maximum hourly Operating Capacity (MW) for which the Demand Side Resource may be scheduled to provide Regulation Service and Operating Reserves, (ii) the amount of regulation credit support, as appropriate, in $/MW per day, and (iii) three (3) days.

Where:

The amount of regulation credit support ($/MW/day) for each two-month period	=	Price Differential for the same two-month period in the previous year * 24 hours
Two-month periods:	=	January and February March and April May and June July and August September and October November and December
MCP_{Regh}	=	Hourly, time-weighted Market Clearing Price for Regulation Services
Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Hour-Ahead MCPRegh for hours in the two-month period of the previous year when the Real-Time MCP exceeded the Day-Ahead MCP

26.4.2.9 Projected True-Up Exposure Component

The Projected True-Up Exposure Component shall apply to any Customer whose four-month true-ups over the most recently invoiced four months average percentage credit exposure to the NYISO is greater than ten percent of the initial invoice settlements for the associated months. Customers subject to the Projected True-Up Exposure Component shall be required to provide secured credit to satisfy the requirement. The Projected True-Up Exposure Component shall be determined according to the following formula:

$$PTE = [\sum_{N4} (Avg\ 4TrueUp * Initial\ 4\ Month)] + [\sum_{NF} (AvgFinalTrueUp * Initial\ Final)]$$

Where:

PTE	=	The amount of secured credit support required for the Projected True-Up Exposure Component
N4	=	Each month with an initial settlement without an associated 4 month settlement
NF	=	Each month with an initial settlement without an associated final bill close-out
Avg4TrueUp	=	Most recent six month rolling average percentage credit exposure of 4 month settlements to associated initial settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
AvgFinalTrueUp	=	Most recent six month rolling average percentage credit exposure of final bill close-outs to associated 4 month settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
Initial 4 Month	=	Initial settlement for the month N4
Initial Final	=	Initial settlement for the month NF

26.4.3 Calculation of Bidding Requirement

The Bidding Requirement shall be an amount equal to the sum of:

(i) the amount of bidding or nominating authorization that the Customer has requested for use in or during, as appropriate, an upcoming ISO-administered TCC auction, which shall account for all positive bids or nominations to purchase TCCs and the absolute value of all negative offers to sell TCCs; *provided, however,* that the amount of credit required for each TCC that the Customer bids or nominates to purchase, whether positive, negative, or zero shall not be less than (a) (2 x $/MW for one-year TCCs) per MW for two-year TCCs, (b) $1,500 per MW for one-year TCCs, (c) $2,000 per MW for six-month TCCs, and (d) $600 per MW for one-month TCCs;

(ii) the approximate amount that the Customer may owe following an upcoming TCC auction as a result of converting expired ETAs into Historic Fixed Price TCCs pursuant to Section 19.2.1 of Attachment M to the OATT, which shall be calculated in accordance with the provisions of Section 19.2.1 regarding the purchase of TCCs with a duration of ten years;

(iii) the amount of bidding authorization that the Customer has requested for use in an upcoming ISO-administered ICAP auction; and

(iv) five (5) days prior to any ICAP Spot Market Auction, the amount that the Customer may be required to pay for UCAP in the auction, calculated as follows:

$$\sum_{L \in S} \left[\begin{array}{l} ICPM_L \ x \ 1000 \ x \ Deficiency_L \\ \quad + \\ ICPM_L \ x \ 1000 \ x \ \dfrac{(ZCP_L - 1)}{2} \ x \ RQT_L \end{array} \right]$$

Where:

S equals a set containing the following locations: each Locality and Rest of State,

L equals a location in the set S,

$ICPM_L$ equals the lesser of $UBRP_L$ or LM_L,

$UBRP_L$ equals the UCAP based reference point (in $/kW-Month) for location L, as determined on the ICAP Demand Curve for that location (or for NYCA, if L is Rest of State) for the applicable Obligation Procurement Period,

LM_L equals (1) for any Locality L that is contained within another Locality X, the greater of CPM_L or CPM_X, or (2) for any other Locality or Rest of State, CPM_L,

CPM_L equals for location L, $(1 + Margin_L)*MCP_L$,

CPM_X equals for location X, $(1 + Margin_X)*MCP_X$,

$Margin_L$ equals 25% if location L is New York City and 100% if location L is G-J Locality, Long Island or Rest of State,

MCP_L equals the Market-Clearing Price for location L in the most recent Monthly Auction that established such a price for the month covered by the ICAP Spot Market Auction, measured in dollars per kilowatt-month, *Deficiency*$_L$ equals the number of megawatts of Unforced Capacity that are to be procured in location *L* on behalf of that Customer in the ICAP Spot Market Auction in order to cover any deficiency for that Customer that exists in that location after the certification deadline for that ICAP Spot Market Auction less any deficiency calculated for that Customer for any Localities contained within location *L*, such value not to be less than zero,

ZCP$_L$ equals the percentage determined in accordance with Services Tariff Section 5.14.1.2 for the applicable ICAP Demand Curves as established at the $0.00 point for the appropriate Capability Year, and

RQT$_L$ equals (1) if *L* is New York City or Long Island, that Customer's share of the Locational Minimum Unforced Capacity Requirement for location *L* or (2) if *L* is G-J Locality, that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality that remains after reducing this amount by its share of the Locational Minimum Unforced Capacity Requirements for New York City or, (3) if *L* is Rest of State, that Customer's share of the NYCA Minimum Unforced Capacity Requirement that remains after reducing this amount by (a) its share of the Locational Minimum Unforced Capacity Requirements for New York City and Long Island and (b) that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality remaining after accounting for New York City, as calculated in (2) above; such value not to be less than zero.

26.5 Unsecured Credit

A Customer may use Unsecured Credit to satisfy any part of its Operating Requirement or Bidding Requirement other than (i) any credit requirement for bidding on or holding TCCs, (ii) the Projected True-Up Exposure Component, or (iii) a withdrawing Customer's required collateral. Affiliate guarantees are considered a form of Unsecured Credit.

Upon written request of a Customer, the ISO shall determine the amount of Unsecured Credit to be granted to the Customer, if any, in accordance with the ISO's creditworthiness requirements. Upon a Customer's written request, the ISO will provide a written explanation for any changes in the amount of the Customer's Unsecured Credit.

26.5.1 Eligibility

A Customer may be eligible to receive Unsecured Credit if the Customer meets the following criteria:

(i) Creditworthiness

- (a) is an Investment Grade Customer,
- (b) is an Unrated Customer that is deemed an Investment Grade Customer pursuant to an Equivalency Rating, or
- (c) provides an Affiliate guarantee in compliance with Section 26.5.4 of this Attachment K;

AND

(ii) Payment History

(a) has actively participated in the ISO-Administered markets and paid when due all of its invoices during the immediately preceding six months, or

(b) has actively participated in the markets of another independent system operator or regional transmission organization and has paid when due all of its invoices during the immediately preceding six months. Any Customer relying on its payment history in another market to fulfill the requirement of this Section 26.5.1(ii) must provide evidence satisfactory to the ISO of such payment history.

Notwithstanding the foregoing, a Customer otherwise eligible for Unsecured Credit that fails to respond to the ISO's request to update the Customer's list of Affiliates, within the time frame provided by Section 9.2 of the ISO Services Tariff, shall not be eligible for Unsecured Credit.

26.5.2 Market Concentration Cap

A Customer's Unsecured Credit shall not exceed fifty million dollars ($50M) (the "Market Concentration Cap"). Moreover, the maximum amount of Unsecured Credit extended to a group of Customers that are Affiliates shall not exceed, in the aggregate, the Market Concentration Cap.

26.5.3 Determination of Unsecured Credit

26.5.3.1 Starting Point

The starting point for determining the amount of Unsecured Credit to be granted to an Investment Grade Customer, except as provided otherwise in Section 26.5.3.6 of this Attachment K, shall be a percentage of its Tangible Net Worth, as indicated on the matrix contained in Table K-1, subject to the Market Concentration Cap.

26.5.3.2 Adjustment to Starting Point

The ISO shall conduct a Credit Assessment of the Customer and shall determine the amount of Unsecured Credit that it shall grant to the Customer by adjusting the Customer's starting point in accordance with the following table:

Starting Point Adjustment

Score Bucket	**Public Score Range**	**Private Score Range**	**Starting Point Adjustment**
1	0.00 – 0.33	0.00 – 0.31	0%
2	0.34 – 0.40	0.32 – 0.39	-20%
3	0.41 – 0.45	0.40 – 0.43	-50%
4	0.46 – 0.50	0.44 – 0.48	-80%
5	0.51+	0.49+	-100%

26.5.3.3 Adjustment to Unsecured Credit

(a) In the event of a change in a Customer's (1) Tangible Net Worth, and/or (2) agency rating, the ISO shall recalculate the Customer's starting point and Unsecured Credit amount in accordance with Sections 26.5.3.1 and 26.5.3.2 of this Attachment K.

(b) The ISO may conduct a Credit Assessment of a Customer at any time and adjust the amount of Unsecured Credit granted to the Customer in accordance with the following table:

Unsecured Credit Adjustment

Current Credit Assessment Score Bucket

Prior Credit Assessment Score Bucket

Score Bucket	**1**	**2**	**3**	**4**	**5**
1	0%	-20%	-50%	-80%	-100%
2	25%	0%	-38%	-75%	-100%
3	100%	60%	0%	-60%	-100%
4	400%	300%	150%	0%	-100%
5	N/A	N/A	N/A	N/A	N/A

26.5.3.4 Restoration of Unsecured Credit

A Customer that is subject to a 100% reduction of Unsecured Credit shall not be eligible for Unsecured Credit again until the Customer demonstrates two consecutive quarters of financial performance that would otherwise have qualified the Customer for Unsecured Credit in accordance with Sections 26.5.3.1 and 26.5.3.2 of this Attachment K.

26.5.3.5 Credit Assessment

(a) In performing a Credit Assessment, the ISO shall evaluate specified indicators of credit risk pertaining to a Customer, which indicators will vary depending on whether the Customer is categorized by the ISO as a private entity or a public entity. The ISO shall categorize a Customer as private or public, for Credit Assessment purposes, in accordance with the following criteria:

Primary Criteria	Secondary Criteria	Credit Assessment Category
Standalone public trading company	None	Public
Subsidiary of a public company with its parent company as guarantor	None	Public
Subsidiary of a public company	With assets greater than US$10B	Public
Subsidiary of a public company	Contributes 50% or more of its parent company's revenues or accounts for 50% or more of its assets	Public
Subsidiary of a public company	Contributes less than 50% of its parent company's revenues or represents less than 50% of its assets	Private
Does not satisfy the criteria listed above	None	Private

(b) The ISO shall determine the Credit Assessment score for a Customer based upon the market and financial indicators and weightings, as appropriate, set forth below.

Public Entity Indicators	**Weight**
▪ Market Indicators	
• Absolute CDS Spread	21.3%
• Relative Stock Decline from 3 month high	4.3%
• Stock Return Volatility (3 month std. deviation)	12.7%
▪ Performance	
• Revenue/Market Cap	12.7%

• Retained Earnings/Assets	8.5%
▪ Debt Coverage	
• Total Debt/EBITDA	12.7%
▪ Leverage	
• Debt/(Total Debt + Equity)	8.5%
▪ Liquidity	
• Cash/Assets	4.3%
▪ Qualitative Assessment	15.0%

Private Entity Indicators	**Weight**
▪ Performance	
• Return on Assets	17.5%
• Profit Margin	10.5%
▪ Debt Coverage	
• Total Debt/EBITDA	17.5%
▪ Leverage	
• Total Debt/Total Assets	17.5%
▪ Liquidity	
• Cash/Assets	7.0%
▪ Qualitative Assessment	30.0%

(c) If one or more of the indicators listed above does not exist for a Customer, then the ISO shall, in its sole discretion, reallocate the weight attributed to that indicator either (1) to the remaining indicators proportionately, or (2) entirely to the qualitative assessment indicator.

(d) The qualitative areas evaluated shall include, but shall not be limited to, the following (as applicable): (1) Affiliate financial and market indicators, (2) ratemaking ability and legal right to fully recover end-user costs, (3) industry characteristics, (4) risk policies and procedures, (5) management quality, (6) ability to access funding in difficult market conditions, and (7) historical relationship and payment history with the ISO. A Transmission Owner that can recover end-user costs pursuant to authority granted by the PSC will receive a qualitative assessment score of no worse than five.

26.5.3.6 Public Power Entities

The following additional provisions shall apply to the determination of a Customer's Unsecured Credit:

(a) A Public Power Entity shall qualify for one million dollars ($1M) in Unsecured Credit, without regard for its Tangible Net Worth or Credit Assessment. Municipal electric systems that operate through a joint action agency or a similar municipal affiliation agreement may aggregate their Unsecured Credit amounts of one million dollars ($1M) per member such that the joint action agency will have an Unsecured Credit amount, subject to the Market Concentration Cap, equal to the total of the Unsecured Credit amounts of each individual member. Each such agency will qualify for such aggregated Unsecured Credit treatment subject to the ISO's review of the particular affiliation agreement and the ISO's review of documentation submitted by the agency to demonstrate that it has been formed under the pertinent sections of the New York State Municipal Law.

(b) In lieu of a one million dollar ($1M) grant of Unsecured Credit, a Public Power Entity may request Unsecured Credit based on its Tangible Net Worth and Credit Assessment. In such case, the ISO will consider the Public Power Entity a private entity for Credit Assessment purposes.

26.5.4 Affiliate Guarantees

26.5.4.1 Eligibility

An Affiliate guarantor shall be subject to the ISO's financial assurance requirements as if the Affiliate guarantor were a Customer and shall be assigned a level of Unsecured Credit, if any.

26.5.4.2 Use for Satisfaction of Minimum Capitalization Requirements

A Customer may use an Affiliate guarantor's financial statements to satisfy the capitalization requirement set forth in Section 26.1.1(d) of this Attachment K if (i) no other Customer relies on the Affiliate guarantor's financial statements to satisfy the capitalization requirement, and (ii) the Customer provides an unlimited Affiliate guarantee that satisfies the requirements set forth in Section 26.5.4.3 of this Attachment K. If a Customer provides an Affiliate guarantee solely to satisfy its capitalization requirement, the Affiliate guarantor, notwithstanding Section 26.5.4.1 of this Attachment K, shall not be subject to the ISO financial assurance requirements.

26.5.4.3 Form of Affiliate Guarantee

An Affiliate guarantee must be in a form acceptable to the ISO and issued by an Investment Grade U.S. or Canadian Affiliate. A Customer's failure to provide a source of collateral in an amount sufficient to (i) secure its obligations to the ISO and/or (ii) as applicable, secure its capitalization requirement pursuant to Section 26.1.1(d) of this Attachment K, fifty (50) days prior to the termination of an Affiliate guarantee, which source of collateral shall be guaranteed to remain in effect for a period of not less than one (1) year, shall be a condition of default enabling the ISO to immediately demand payment under the Affiliate guarantee in the amount required to meet Customer's ISO credit requirements, and/or, as applicable, the amount required to secure Customer's capitalization requirement.

26.5.5 Requests for Changes, Appeals

Requests for changes to the amount of a Customer's Unsecured Credit shall be made in writing to the ISO Credit Manager. Appeals of any decision regarding a Customer's Unsecured Credit shall be made in writing to the ISO's Chief Financial Officer and shall include all necessary supporting documentation. The Chief Financial Officer shall determine all appeals within ten (10) business days.

26.13 Withdrawing Customer's Collateral

Upon a Customer's withdrawal from the LBMP Market(s) and/or all of the ISO-Administered Markets to secure the Customer's estimated remaining financial obligations, including, but not limited to, true-up payments or other invoice adjustments, the Customer shall be required to provide secured credit according to the following formula:

$$RCC = [\sum_{N4} (Avg\ 4TrueUp * Initial\ 4\ Month)] + [\sum_{NF} (AvgFinalTrueUp * Initial\ Final)]$$

Where:

RCC	=	The amount of secured credit to be required following a Customer's withdrawal
N4	=	Each month with an initial settlement without an associated 4 month settlement
NF	=	Each month with an initial settlement without an associated final bill close-out
Avg4TrueUp	=	Most recent six month rolling average percentage credit exposure of 4 month settlements to associated initial settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
AvgFinalTrueUp	=	Most recent six month rolling average percentage credit exposure of final bill close-outs to associated 4 month settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
Initial 4 Month	=	Initial settlement for the month N4
Initial Final	=	Initial settlement for the month NF

Attachment II

26.4 Operating Requirement and Bidding Requirement

26.4.1 Purpose and Function

The Operating Requirement is a measure of a Customer's expected financial obligations to the ISO based on the nature and extent of that Customer's participation in ISO-Administered Markets. A Customer shall be required to allocate Unsecured Credit, where allowed, and/or provide collateral in an amount equal to or greater than its Operating Requirement. Upon a Customer's written request, the ISO will provide a written explanation for any changes in the Customer's Operating Requirement.

The Bidding Requirement is a measure of a Customer's potential financial obligation to the ISO based upon the bids that Customer seeks to submit in an ISO-administered TCC or ICAP auction. A Customer shall be required to allocate Unsecured Credit, where allowed, and/or provide collateral in an amount equal to or greater than its Bidding Requirement prior to submitting bids in an ISO-administered TCC or ICAP auction.

26.4.2 Calculation of Operating Requirement

The Operating Requirement shall be equal to the sum of (i) the Energy and Ancillary Services Component; (ii) the External Transaction Component; (iii) the UCAP Component; (iv) the TCC Component; (v) the WTSC Component; (vi) the Virtual Transaction Component; (vii) the DADRP Component; ~~and~~ (viii) the DSASP Component ~~where:~~; and (ix) the Projected True-Up Exposure Component, where:

26.4.2.1 Energy and Ancillary Services Component

The Energy and Ancillary Services Component shall be equal to:

(a) For Customers without a prepayment agreement, the greater of either:

$$\frac{\text{Basis Amount for Energy and Ancillary Services}}{\text{Days in Basis Month}} \times 16$$

- or -

$$\frac{\text{Total Charges Incurred for Energy and Ancillary Services for Previous Ten (10) Days}}{10} \times 16$$

(b) For Customers that qualify for a prepayment agreement, subject to the ISO's credit analysis and approval, and execute a prepayment agreement in the form provided in Appendix K-1, the greater of either:

$$\frac{\text{Basis Amount for Energy and Ancillary Services}}{\text{Days in Basis Month}} \times 3$$

or-

$$\frac{\text{Total Charges Incurred for Energy and Ancillary Services for Previous Ten (10) Days} \times 3}{10}$$

(c) For new Customers, the ISO shall determine a substitute for the Basis Amount for Energy and Ancillary Services for use in the appropriate formula above equal to:

EPL x 720 x AEP

where:

EPL	=	estimated peak Load for the Capability Period; and
AEP	=	average Energy and Ancillary Services price during the Prior Equivalent Capability Period after applying the Price Adjustment.

26.4.2.2 External Transaction Component

The External Transaction Component shall equal the sum of the Customer's (i) Import Credit Requirement, (ii) Export Credit Requirement, (iii) Wheels Through Credit Requirement, and (iv) the net amount owed to the ISO for the settled External Transaction Component Transactions.

26.4.2.2.1 Import Credit Requirement

For a given month, the Import Credit Requirement shall apply to any Customer that Bids to Import in the Day-Ahead Market ("DAM") unless (i) the Customer has at least 50 scheduled Day-Ahead Import Bids in the three-month period ending on the 15th day of the preceding month (or the six-month period ending on the 15th day of the preceding month if the Customer has fewer than 50 scheduled Day-Ahead Import Bids in the immediately preceding three-month period), and (ii) fewer than 25% of the MWhs of such scheduled Day-Ahead Import Bids were settled at a loss to the Customer.

The Import Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Import Bid until posting of the applicable DAM schedule/price.

The ISO will categorize each Import Bid into one of the 18 Import Price Differential (IPD) groups set forth in the IPD chart in Section 26.4.2.2.5 below, as appropriate, based upon the season and time-of-day of the Import Bid. The amount of credit support required in $/MWh that applies to an Import Bid shall equal the 97th percentile level of the following: the hourly average Energy price calculated in the Real-Time Market at the location associated with the Import Bid, minus the Energy price calculated in the DAM at the same location and time, with the dataset used to perform this calculation consisting of all hours that are in the same IPD group as the hour to which the Import Bid applies, and that occurred no earlier than April 1, 2005 nor later than the end of the calendar month preceding the month to which the Import Bid applies. The amount of credit support required in $/MWh shall not be less than $0/MWh.

The credit requirement for each Import Bid shall be calculated as follows:

$$Bid_{MWhB} * Max\ (IPD_{CS}, 0)$$

Where:

Bid_{MWhB}	=	the total quantity of MWhs that a Customer Bids to Import in a particular hour and at a particular location.
IPD_{CS}	=	the amount of credit support required, in $/MWh, for an Import Bid as described above, for the location associated with the Import Bid and for the IPD group that contains the hour to which the Import Bid applies.

(2) Upon posting of the applicable DAM schedule/price until completion of the hour Bid in real-time for a DAM Import Bid.

The credit requirement for each Import Bid shall be calculated as follows:

$$SchBid_{MWhI} * Max\ (IPD_{CS}, 0)$$

Where:

$SchBid_{MWhI}$	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Import Bid.
IPD_{CS}	=	the amount of credit support required, in $/MWh, for an Import Bid as described above, for the location associated with the Import Bid and for the IPD group that contains the hour to which the Import Bid applies.

(3) Upon completion of the hour Bid in real-time for a DAM Import Bid until the net amount owed to the ISO is determined for settled External Transactions.

The credit requirement for each Import Bid shall be calculated as follows:

$$Max\ ((BalPay\$ – DAMPay\$), 0)$$

Where:

$BalPay_{\$}$	=	$(SchBid_{MWhI} – Actual_{MWhI}) * RT\ LBMP_{I}$
$DAMPay_{\$}$	=	$SchBid_{MWhI} * DAM\ LBMP_{I}$
$SchBid_{MWhI}$	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour at a particular location as a result of the Customer's Import Bid.

$Actual_{MWhI}$	=	the total quantity of MWhs that is scheduled in real-time associated with the Customer's Import Bid in a particular hour and at a particular location for the hour completed.
DAM $LBMP_I$	=	the Day-Ahead LBMP in a particular hour and at a particular location associated with the Customer's Import Bid.
RT $LBMP_I$	=	the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Import Bid.

26.4.2.2.2 Export Credit Requirement

The Export Credit Requirement shall apply to any Customer that Bids to Export from the DAM or Hour-Ahead Market ("HAM").

The Export Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Export Bid until posting of the applicable DAM schedule/price.

The ISO will categorize each Export Bid into one of the 18 Export Price Differential (EPD) groups set forth in the EPD chart in Section 26.4.2.2.5 below, as appropriate, based upon the season and time-of-day of the Export Bid. The amount of credit support required in $/MWh that applies to an Export Bid shall equal the 97^{th} percentile level of the following: the Energy price calculated in the DAM at the location associated with the Export Bid, minus the hourly average Energy price calculated in the Real-Time Market at the same location and time, with the dataset used to perform this calculation consisting of all hours that are in the same EPD group as the hour to which the Export Bid applies, and that occurred no earlier than April 1, 2005 nor later than the end of the calendar month preceding the month to which the Export Bid applies. The amount of credit support required in $/MWh shall not be less than $0/MWh.

The credit requirement for all DAM Export Bids with the same hour/date and location shall be calculated as follows:

$$(\text{Max}\ ((\text{Max}_N(\text{Bid}_{MWh} * \text{Bid}_{\$E})), (\text{BidMax}_{MWhB} * \text{EPD}_{CS})))$$

Where:

Bid_{MWh}	=	the total quantity of MWhs that a Customer Bids to Export in the DAM in a particular hour and at a particular location at or below each Bid Price.
$\text{Bid}_{\$E}$	=	the Bid Price in \$/MWh at which the Customer Bids to purchase the Bid_{MWh} of Exports in a particular hour and at a particular location.
N	=	the set of hourly Export Bid Prices in a particular hour and at a particular location.
BidMax_{MWhB}	=	the total quantity of MWhs that a Customer Bids to Export in the DAM in a particular hour and at a particular location.
EPD_{CS}	=	the amount of credit support required, in \$/MWh, for an Export Bid as described above, for the location associated with the Export Bid and for the EPD group that contains the hour to which the Export Bid applies.

(2) Upon posting of the applicable DAM schedule/price until completion of hour Bid in real-time for a DAM Export Bid.

The credit requirement for each Export Bid shall be calculated as follows:

$$(\text{SchBid}_{MWhE} * (\text{Max}\ (\text{EPD}_{CS}, \text{DAM LBMP}_E)))$$

Where:

SchBid_{MWhE}	=	the total quantity of MWhs that is scheduled in the DAM in a particular hour at a particular location as a result of the Customer's Export Bid.
EPD_{CS}	=	the amount of credit support required, in \$/MWh, for an Export Bid as described above, for the location associated with the Export Bid and for the EPD group that contains the hour to which the Export Bid applies.
DAM LBMP_E	=	the Day-Ahead LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

(3) From submission of a HAM Export Bid until completion of the hour Bid in real-time.

i. For non-CTS Interface Bid HAM Bids to Export credit support will be calculated upon submission.

The amount of credit support required in \$/MWh that applies to HAM Export Bids in the same hour/date and at the same location shall equal the maximum amount of the payment potentially due to the ISO based on the MWhs of Exports Bid for purchase at each bid price in a particular hour and at a particular location.

The credit requirement for all HAM Export Bids with the same hour/date and location shall be calculated as follows:

$$(\mathrm{Max}_N\,((\mathrm{Max}\,(\mathrm{Bid}_{MWhE}, 0)) * \mathrm{Bid}_{\$E}))$$

Where:

Bid_{MWhE}	=	the total quantity of MWhs that a Customer Bids to Export in the HAM in a particular hour and at a particular location at or below each bid price minus the MWhs of Exports scheduled in the DAM in the same hour at the same location.
$\mathrm{Bid}_{\$E}$	=	the bid price in \$/MWh at which the Customer Bids to purchase the Bid_{MWhE} of Exports in a particular hour and at a particular location.
N	=	the set of hourly Export bid prices in a particular hour and at a particular location.

ii. For CTS Interface Bids to Export credit support will be calculated at HAM market close.

The amount of credit support required in \$/MWh that applies to such bid shall equal the sum of the time-weighted hourly RTC price for each of the 15-minute intervals within the bid hour, not to be less than zero.

The credit requirement for each CTS Interface Bid to Export shall be calculated as follows:

$$\text{Max}\left(\sum_N \left(RTC_{\$/MWhcts} * Bid_{MWhscts} * \text{Hourly Weight}\right), 0\right)$$

Where:

N = each 15-minute interval within the bid hour.

$RTC_{\$/MWhcts}$ = most recently available RTC price for N in $/MWh at the location associated with the CTS Interface Bid to Export

$Bid_{MWhscts}$ = the total quantity of MWhs in a Customer's CTS Interface Bid to Export for N in a particular hour and at a particular location minus the MWhs of Exports scheduled in the DAM in same hour at the same location.

Hourly Weight = 0.25

<u>(4) Upon completion of the hour Bid in real-time for an Export Bid until the net amount owed to the ISO is determined for settled External Transactions.</u>

The amount of credit support required will equal the sum of the Day-Ahead Credit Calculation and Real-Time Credit Calculation for each completed hour.

The credit requirement for each Export Bid shall be calculated as follows:

Day-Ahead Credit Calculation + Real-Time Credit Calculation

The Day-Ahead Credit Calculation only applies to DAM Export Bids and the Real-Time Credit Calculation applies to all HAM Export Bids including HAM Bids associated with a DAM Bid.

Where:

Day-Ahead Credit Calculation = Max (Adjusted Export Day-Ahead Credit Calculation, 0)

Adjusted Export Day-Ahead Credit Calculation = the credit requirement calculated in accordance with section 26.4.2.2.2(2) minus the Balancing Payment.

Balancing Payment = $\text{Max}\left(\left(SchBid_{MWhE} - Actual_{MWhE}\right), 0\right) * RT\ LBMP_E$

$SchBid_{MWhE}$ = the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Export Bid.

$Actual_{MWhE}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Export Bid in a particular hour and at a particular location for the hour completed.

$RT\ LBMP_E$ = the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

Real-Time Credit Calculation = $Max\ ((Max\ ((Actual_{MWhE} - SchBid_{MWhE}),0) * RT\ LBMP_E), 0)$

$Actual_{MWhE}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Export Bid in a particular hour and at a particular location for the hour completed.

$SchBid_{MWhE}$ = the total quantity of MWhs that is scheduled in the DAM in a particular hour and at a particular location as a result of the Customer's Export Bid.

$RT\ LBMP_E$ = the Real-Time LBMP in a particular hour and at a particular location associated with the Customer's Export Bid.

26.4.2.2.3 Wheels Through Credit Requirement

The Wheels Through Credit Requirement shall apply to any Customer that Bids to Wheel Through in the DAM or HAM.

The Wheels Through Credit Requirement shall equal the sum of the amounts calculated for each Bid in accordance with the appropriate formulas below:

(1) Upon submission of a DAM Wheels Through Bid until posting of the applicable DAM schedule/price.

The amount of credit support required in $/MWh that applies to the DAM Wheels Through Bid shall equal the maximum payment potentially due to the ISO based on the Customer's Bid Prices on the Bid curve.

The credit requirement for each Wheels Through Bid shall be calculated as follows:

$$Max\ (Max_N\ (BidPt_{MWhN} * Bid\$_{\$/MWhN}),0)$$

Where:

N = each Bid Price on the Bid curve.

$BidPt_{MWhN}$ = the MWhs associated with the Bid Price on the Bid curve.

$Bid\$_{\$/MWhN}$ = the amount that the customer is willing to pay for congestion in \$/MWh on the Bid curve associated with the Customer's Wheels Through Bid.

(2) <u>Upon posting of the applicable Wheels Through DAM schedule/price until completion of the hour Bid in real-time.</u>

The credit requirement for each DAM Wheels Through Bid shall be calculated as follows:

$$Max\ (SchBid_{MWhW} * (DAM\ LBMP_{POW} – DAM\ LBMP_{POI}), 0))$$

Where:

$SchBid_{MWhW}$ = the total quantity of MWhs scheduled in the DAM as a result of the Customer's Bid to schedule Wheels Through.

$DAM\ LBMP_{POI}$ = the Day-Ahead LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.

$DAM\ LBMP_{POW}$ = the Day-Ahead LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

(3) <u>Upon creation of a HAM Wheels Through Bid until the completion of the hour Bid in real-time.</u>

The amount of credit support required in \$/MWh that applies to HAM Wheels Through Bid shall equal the price of the maximum value of exposure based on bid prices on the Bid curve.

The credit requirement for each Wheels Through Bid shall be calculated as follows:

$$Max(Max_N\ (Max\ (BidPt_{MWhW}, 0) * Bid\$_{\$/MWhN}\ ),0)$$

Where:

N = each bid price on the Bid curve.

$BidPt_{MWhW}$ = the MWhs associated with the bid price on the Bid curve minus the MWhs of the DAM Bid with same hour/date, location and Bid transaction ID.

$Bid\$_{\$/MWhN}$ = the amount that the customer is willing to pay for congestion in \$/MWh on the Bid curve associated with the Customer's Wheels Through Bid.

(4) Upon completion of the hour Bid in real-time for a Wheels Through Bid until the net amount owed to the ISO is determined for settled External Transactions.

The amount of credit support required will equal the sum of the Day-Ahead Credit Calculation and Real-Time Credit Calculation for each completed hour. The credit requirement for each Wheels Through Bid shall be calculated as follows:

Day-Ahead Credit Calculation + Real-Time Credit Calculation

The Day-Ahead Credit Calculation only applies to DAM Wheels Through Bids and the Real-Time Credit Calculation applies to all HAM Wheels Through Bids including HAM Bids associated with a DAM Bid.

Where:

Day-Ahead Credit Calculation = Max (Adjusted Wheels Through Day-Ahead Credit Calculation, 0)

Adjusted Wheels Through Day-Ahead Credit Calculation = the credit requirement calculated in section 26.4.2.2.3(2) minus the Balancing Payment.

Balancing Payment = $\text{Max}((SchBid_{MWhW} - Actual_{MWhW}), 0) * (\text{RT LBMP}_{POW} - \text{RT LBMP}_{POI})$

$SchBid_{MWhW}$ = the total quantity of MWhs that is scheduled in the DAM as a result of the Customer's Wheels Through Bid.

$Actual_{MWhW}$ = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Wheels Through Bid for the hour completed.

RT $LBMP_{POI}$ = the Real-Time LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.

RT $LBMP_{POW}$ = the Real-Time LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

$$\text{Real-Time Credit Calculation} = \text{Max}\left(\text{Max}\left(\left(\text{Actual}_{MWhW} - \text{SchBid}_{MWhW}\right), 0\right) * \left(\text{RT LBMP}_{POW} - \text{RT LBMP}_{POI}\right), 0\right)$$

SchBid_{MWhW} = the total quantity of MWhs that is scheduled in the DAM as a result of the Customer's Bid to Wheel Through Energy.

Actual_{MWhW} = the total quantity of MWhs that is scheduled in real-time associated with the Customer's Wheels Through Bid for the hour completed.

RT LBMP_{POI} = the Real-Time LBMP in the hour and at the Point of Injection associated with the Wheels Through Bid.

RT LBMP_{POW} = the Real-Time LBMP in the hour and at the Point of Withdrawal associated with the Wheels Through Bid.

26.4.2.2. 4 Calculation of Price Differentials

Import Price Differential (IPD) Groups

Summer	**For each Proxy Generator Bus**
HB07–10	IPD-1
HB11–14	IPD-2
HB15–18	IPD-3
HB19–22	IPD-4
Weekend/ Holiday (HB07–22)	IPD-5
Night (HB23–06)	IPD-6
Winter	
HB07–10	IPD-7
HB11–14	IPD-8
HB15–18	IPD-9
HB19–22	IPD-10
Weekend/ Holiday (HB07–22)	IPD-11
Night (HB23–06)	IPD-12
Rest-of-Year	
HB07–10	IPD-13
HB11–14	IPD-14
HB15–18	IPD-15
HB19–22	IPD-16
Weekend/ Holiday (HB07–22)	IPD-17
Night (HB23–06)	IPD-18

Where:

Summer = May, June, July, and August

Winter	=	December, January, and February
Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

Export Price Differential (EPD) Groups

Summer	**For each Proxy Generator Bus**
HB07–10	EPD-1
HB11–14	EPD-2
HB15–18	EPD-3
HB19–22	EPD-4
Weekend/ Holiday (HB07–22)	EPD-5
Night (HB23–06)	EPD-6
Winter	
HB07–10	EPD-7
HB11–14	EPD-8
HB15–18	EPD-9
HB19–22	EPD-10
Weekend/ Holiday (HB07–22)	EPD-11
Night (HB23–06)	EPD-12
Rest-of-Year	
HB07–10	EPD-13
HB11–14	EPD-14
HB15–18	EPD-15
HB19–22	EPD-16
Weekend/ Holiday (HB07–22)	EPD-17
Night (HB23–06)	EPD-18

Where:

Summer	=	May, June, July, and August
Winter	=	December, January, and February

Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

26.4.2.3 UCAP Component

The UCAP Component shall be equal to the total of all amounts then-owed (billed and unbilled) for UCAP purchased in the ISO-administered markets.

26.4.2.4 TCC Component

The TCC Component shall be equal to the greater of either the amount calculated in accordance with Section 26.4.2.4.1 or Section 26.4.2.4.2 below.

26.4.2.4.1 TCC Award Calculation

The sum of the amounts calculated in accordance with the appropriate per TCC term-based formula listed below for TCC purchases less the amounts calculated in accordance with the appropriate per TCC term-based formula listed below for TCC sales; *provided however,* that upon initial award of a TCC until the ISO receives payment for the TCC (or payment for the first year of a two-year TCC), the NYISO will hold the greater of the payment obligation for the TCC or the credit requirement for the TCC calculated in accordance with this Section 26.4.2.4.1.

26.4.2.4.1.1 Two-Year TCCs:

(1) upon initial award of a two-year TCC until completion of the final round of the current two-year Sub-Auction, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:
the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC.

Second Year:

$$+1.909\sqrt{e^{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*Zone\ J+1.1607*Zone\ K}}$$

where:

Pijt = market clearing price of that two-year TCC minus the market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(2) upon completion of the final round of the current two-year Sub-Auction until completion of the final round of the current one-year Sub-Auction, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:
the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below
where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

Second Year:

$$+1.909\sqrt{e^{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*Zone\ J+1.1607*Zone\ K}}$$

where:

Pijt = market clearing price of a two-year TCC in the final round of the current two-year Sub-Auction with the same POI and POW combination as the two-year TCC minus the market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(3) upon completion of the final round of the current one-year Sub-Auction until the ISO receives payment for the second year of the two-year TCC, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the two-year TCC

Second Year:

$$+1.909\sqrt{e^{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*Zone\ J+1.1607*Zone\ K}}$$

where:

Pijt = market clearing price of a two-year TCC in the final round of the current two-year Sub-Auction with the same POI and POW combination as the two-year TCC minus the market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the two-year TCC

(4) upon ISO receipt of payment for the second year of the two-year TCC until commencement of year two of the two-year TCC, the sum of the first year and second year amounts, which will be calculated as follows:

First Year:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior equivalent Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

Second Year:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the one-year Sub-Auction in the prior equivalent Capability Period Centralized TCC Auction with the same POI and POW combination as the two-year TCC

(5) upon commencement of year two of a two-year TCC until commencement of the final six months of the two-year TCC:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the most recently completed one-year Sub-Auction with the same POI and POW combination as the two-year TCC

(6) upon commencement of the final six months of a two-year TCC until commencement of the final month of the two-year TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the most recently completed six-month Sub-Auction with the same POI and POW combination as the two-year TCC

(7) upon commencement of the final month of a two-year TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the two-year TCC

26.4.2.4.1.2 One-Year TCCs:

(1) upon initial award of a one-year TCC until completion of the final round of the current one-year Sub-Auction:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

(2) upon completion of the final round of the current one-year Sub-Auction until commencement of the final six months of the one-year TCC:

the amount calculated in accordance with the one-year TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-year TCC in the final round of the current one-year Sub-Auction with the same POI and POW combination as the one-year TCC

(3) upon commencement of the final six months of a one-year TCC until commencement of the final month of the one-year TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the most recently completed six-month Sub-Auction with the same POI and POW combination as the one-year TCC

(4) upon commencement of the final month of a one-year TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the one-year TCC

26.4.2.4.1.3 Six-Month TCCs:

(1) upon initial award of a six-month TCC until completion of the final round of the

current six-month Sub-Auction:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

(2) upon completion of the final round of the current six-month Sub-Auction until

commencement of the final month of a six-month TCC:

the amount calculated in accordance with the six-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a six-month TCC in the final round of the current six-month Sub-Auction with the same POI and POW combination as the one-year TCC

(3) upon commencement of the final month of a six-month TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

where:

Pijt = market clearing price of a one-month TCC in the most recently completed monthly reconfiguration auction with the same POI and POW combination as the six-month TCC

26.4.2.4.1.4 One-Month TCCs:

upon initial award of a one-month TCC:

the amount calculated in accordance with the one-month TCC formula set forth in Section 26.4.2.4.1.5 below

26.4.2.4.1.5 TCC formulas:

for one-year TCCs, representing a 5% probability curve:

$$+1.909\ \sqrt{e^{\mathbf{10.9729+.6514\left(\ln\left(\left|p_{ijt}\right|+e\right)\right)+.6633*\mathit{Zone}\ +\ \mathit{1.1607*Zone\ K}}}}\ -\ 1\ P_{ijt}$$

for six-month TCCs, representing a 3% probability curve:

$+2.565 - 1\ P_{ijt}$

for one-month TCCs, representing a 3% probability curve:

$$+2.221\ \sqrt{e^{11.2682+0.3221(\ln(\left|p_{ijt}\right|+e))+1.3734*ZoneJ+2.001*ZoneK+Month}}\ -\ 1\ P_{ijt}$$

where:

Pijt = market clearing price of i to j TCC in round t of the auction in which the TCC was purchased;

Zone J = 1 if TCC sources or sinks but not both in Zone J, zero otherwise;

Zone K = 1 if TCC sources or sinks but not both in Zone K and does not source or sink in Zone J, 0 otherwise;

Summer = 1 for six-month TCCs sold in the spring auction, 0 otherwise; and

Month = the following values:

January	=	0
February	=	-0.0201
March	=	0
April	=	0
May	=	0.8181
June	=	0.2835
July	=	0.5201
August	=	0.7221
September	=	0
October	=	0.32
November	=	-0.7681
December	=	0

Provided, however, for purposes of determining the credit holding requirement for a Fixed Price TCC, the market clearing price shall be replaced by the fixed price associated with that Fixed Price TCC, as determined in Section 19.2.1 or Section 19.2.2, of Attachment M as appropriate, of the OATT.

Further, when calculating "Pijt" in Section 26.4.2.4.1, in the event there is no market clearing price for a two-year, one-year, six-month, or one-month TCC in the appropriate prior Capability Period Centralized TCC Auction with the same POI and POW combination as the awarded two-year, one-year, six-month, or one-month TCC, as appropriate, then the market clearing price shall equal a proxy price, assigned by the ISO, for a TCC with like characteristics.

Further, the NYISO may adjust any of the Zone K multipliers in Section 26.4.2.4.1 if, for TCCs of the same duration, the percentage ratio between collateral and congestion rents for Zone K TCCs deviates from the percentage ratio for Zone J TCCs by more than ten percent (10.0%).

26.4.2.4.2 Mark-to-Market Calculation

The projected amount of the Primary Holder's payment obligation to the NYISO, if any, considering the net mark-to-market value of all TCCs in the Primary Holder's portfolio, as defined for these purposes, according to the formula below:

$$\sum_{n \in N} \left\{ \frac{NAPn}{90} \times RDn \right\} + \sum ACRn$$

where:

NAP = the net amount of Congestion Rents between the POI and POW composing each TCC_n during the previous ninety days

RD = the remaining number of days in the life of TCC_n; *provided, however,* that in the case of Grandfathered TCCs, RD shall equal the remaining number of days in the life of the longest duration TCC sold in an ISO-administered auction then outstanding;

N = the set of TCCs held by the Primary Holder; and

ACR = the net amount owed to the ISO for Congestion Rents between the POI and POW composing each TCC_n.

26.4.2.5 WTSC Component

The WTSC Component shall be equal to the greater of either:

$$\frac{\text{Greatest Amount Owed for WTSC During Any Single Month in the Prior Equivalent Capability Period}}{\text{Days in Month}} \times 50$$

- or –

$$\frac{\text{Total Charges Incurred for WTSC Based Upon the Most Recent Monthly Data Provided by the Transmission Owner}}{\text{Days in Month}} \times 50$$

26.4.2.6 Virtual Transaction Component

The Virtual Transaction Component shall be equal to the sum of the Customer's (i) Virtual Supply credit requirement ("VSCR") for all outstanding Virtual Supply Bids, plus (ii) Virtual Load credit requirement ("VLCR") for all outstanding Virtual Load Bids, plus (iii) net amount owed to the ISO for settled Virtual Transactions.

Where:

$VSCR = \sum (VSG_{MWh} \times VSG_{CS})$

$VLCR = \sum (VLG_{MWh} \times VLG_{CS})$

Where:

VSG_{MWh} = the total quantity of MWhs of Virtual Supply that a Customer Bids for all Virtual Supply positions in the Virtual Supply group

VSG_{CS} = the amount of credit support required in $/MWh for the Virtual Supply group

VLG_{MWh} = the total quantity of MWhs of Virtual Load that a Customer Bids for all Virtual Load positions in the Virtual Load group

VLG_{CS} = the amount of credit support required in $/MWh for the Virtual Load group

The ISO will categorize each Virtual Supply Bid into one of the 72 Virtual Supply groups set forth in the Virtual Supply chart below, as appropriate, based upon the season, Load Zone, and time-of-day of the Virtual Supply Bid. The amount of credit support required in $/MWh for a Virtual Transaction in a particular Virtual Supply group shall equal the price differential between the Energy price in the Day-Ahead Market and the Energy price in the Real-Time Market, at the 97th percentile, based upon all possible Virtual Supply positions in the Virtual Supply group for the period of time from April 1, 2005, through the end of the preceding calendar month.

The ISO will categorize each Virtual Load Bid into one of the 30 Virtual Load groups set forth in the Virtual Load chart below, as appropriate, based upon the season, Load Zone, and time-of-day of the Virtual Load Bid. The amount of credit support required in $/MWh for a Virtual Transaction in a particular Virtual Load group shall equal the price differential between the Energy price in the Day-Ahead Market and the Energy price in the Real-Time Market, at the 97th percentile, based upon all possible Virtual Load positions in the Virtual Load group for the period of time from April 1, 2005, through the end of the preceding calendar month.

If a Customer submits Bids for both Virtual Load and Virtual Supply for the same day, hour, and Load Zone, then for those Bids, until such time as those Bids have been evaluated by SCUC, only the greater of the Customer's (i) VLCR for the total MWhs Bid for Virtual Load, or (ii) VSCR for the total MWhs Bid for Virtual Supply will be included when calculating the Customer's Virtual Transaction Component. After evaluation of those Bids by SCUC, then only the credit requirement for the net position of the accepted Bids (in MWhs of Virtual Load or Virtual Supply) will be included when calculating the Customer's Virtual Transaction Component.

Virtual Supply Groups

Summer	Load Zones A–F	Load Zones G–I	Load Zone J	Load Zone K

HB07–10	VSG-1	VSG-7	VSG-13	VSG-19
HB11–14	VSG-2	VSG-8	VSG-14	VSG-20
HB15–18	VSG-3	VSG-9	VSG-15	VSG-21
HB19–22	VSG-4	VSG-10	VSG-16	VSG-22
Weekend/ Holiday (HB07–22)	VSG-5	VSG-11	VSG-17	VSG-23
Night (HB23–06)	VSG-6	VSG-12	VSG-18	VSG-24
Winter				
HB07–10	VSG-25	VSG-31	VSG-37	VSG-43
HB11–14	VSG-26	VSG-32	VSG-38	VSG-44
HB15–18	VSG-27	VSG-33	VSG-39	VSG-45
HB19–22	VSG-28	VSG-34	VSG-40	VSG-46
Weekend/ Holiday (HB07–22)	VSG-29	VSG-35	VSG-41	VSG-47
Night (HB23–06)	VSG-30	VSG-36	VSG-42	VSG-48
Rest-of-Year				
HB07–10	VSG-49	VSG-55	VSG-61	VSG-67
HB11–14	VSG-50	VSG-56	VSG-62	VSG-68
HB15–18	VSG-51	VSG-57	VSG-63	VSG-69
HB19–22	VSG-52	VSG-58	VSG-64	VSG-70
Weekend/ Holiday (HB07–22)	VSG-53	VSG-59	VSG-65	VSG-71
Night (HB23–06)	VSG-54	VSG-60	VSG-66	VSG-72

Where:

Summer	=	May, June, July, and August
Winter	=	December, January, and February
Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

Virtual Load Groups

Summer	**Load Zones A–F**	**Load Zones G–I**	**Load Zone J**	**Load Zone K**
HB07–10	VLG-1	VLG-4	VLG-8	VLG-12

HB11–14	VLG-2	VLG-5	VLG-9	VLG-13
HB15–18	VLG-2	VLG-6	VLG-10	VLG-14
HB19–22	VLG-1	VLG-4	VLG-8	VLG-15
Weekend/ Holiday (HB07–22)	VLG-3	VLG-4	VLG-8	VLG-16
Night (HB23–06)	VLG-1	VLG-7	VLG-11	VLG-12
Winter				
HB07–10	VLG-17	VLG-19	VLG-21	VLG-23
HB11–14	VLG-17	VLG-20	VLG-21	VLG-23
HB15–18	VLG-18	VLG-19	VLG-22	VLG-24
HB19–22	VLG-17	VLG-20	VLG-21	VLG-24
Weekend/ Holiday (HB07–22)	VLG-17	VLG-20	VLG-21	VLG-23
Night (HB23–06)	VLG-17	VLG-20	VLG-21	VLG-23
Rest-of-Year				
HB07–10	VLG-25	VLG-26	VLG-27	VLG-29
HB11–14	VLG-25	VLG-26	VLG-28	VLG-29
HB15–18	VLG-25	VLG-26	VLG-28	VLG-30
HB19–22	VLG-25	VLG-26	VLG-27	VLG-30
Weekend/ Holiday (HB07–22)	VLG-25	VLG-26	VLG-27	VLG-30
Night (HB23–06)	VLG-25	VLG-26	VLG-27	VLG-29

Where:

Summer	=	May, June, July, and August
Winter	=	December, January, and February
Rest-of-Year	=	March, April, September, October, and November
HB07–10	=	weekday hours beginning 07:00–10:00
HB11–14	=	weekday hours beginning 11:00–14:00
HB15–18	=	weekday hours beginning 15:00–18:00
HB19–22	=	weekday hours beginning 19:00– 22:00
Weekend/Holiday	=	weekend and holiday hours beginning 07:00–22:00
Night	=	all hours beginning 23:00– 06:00

26.4.2.7 DADRP Component

The DADRP Component shall be equal to the product of: (i) the Demand Reduction Provider’s monthly average of MWh of accepted Demand Reduction Bids during the prior summer Capability Period or, where the Demand Reduction Provider does not have a history of accepted Demand Reduction bids, a projected monthly average of the Demand Reduction Provider's accepted Demand Reduction bids; (ii) the average Day-Ahead LBMP at the NYISO Reference Bus during the prior summer Capability Period; (iii) twenty percent (20%); and (iv) a factor of four (4). The ISO shall adjust the amount of Unsecured Credit and/or collateral that a Demand Reduction Provider is required to provide whenever the DADRP Component increases or decreases by ten percent (10%) or more.

26.4.2.8 DSASP Component

The DSASP Component is calculated every two months based on the Demand Side Resource's Operating Capacity available for the scheduling of such services, the delta between the Day-Ahead and hourly market clearing prices for such products in the like two-month period of the previous year, and the location of the Demand Side Resource. Resources located East of Central-East shall pay the Eastern reserves credit support requirement and Resources located West of Central-East shall pay the Western reserves credit support requirement. The DSASP Component shall be equal to:

(a) For Demand Side Resources eligible to offer only Operating Reserves, the product of (i) the maximum hourly Operating Capacity (MW) for which the Demand Side Resource may be scheduled to provide Operating Reserves, (ii) the amount of Eastern or Western reserves credit support, as appropriate, in $/MW per day, and (iii) three (3) days.

Where:

The amount of Eastern reserves credit support ($/MW/day) for each two-month period	=	Eastern Price Differential for the same two-month period in the previous year * the higher of two (2) or the maximum number of daily Reserve Activations for the same two-month period in the previous year

The amount of Western reserves credit support ($/MW/day) for each two-month period	=	Western Price Differential for the same two-month period in the previous year * the higher of two (2) or the maximum number of daily Reserve Activations for the same two-month period in the previous year
Two-month periods:	=	January and February March and April May and June July and August September and October November and December
MCP_{SRh}	=	Hourly, time-weighted Market Clearing Price for Spinning Reserves
Eastern Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Real-Time MCPSRh for Eastern Spinning Reserves for hours in the two-month period of the previous year when the Real-Time MCPSRh for Eastern Spinning Reserves exceeded the Day-Ahead MCPSRh for Eastern Spinning Reserves
Western Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Real-Time MCPsSRh for Western Spinning Reserves for hours in the two-month period of the previous year when the Real-Time MCPSRh for Western Spinning Reserves exceeded the Day-Ahead MCPSRh for Western Spinning Reserves
Reserve Activations	=	The number of reserve activations at the 97th percentile of daily reserve activations for days in each two month period of the previous year that had reserve activations.

(b) For Demand Side Resources eligible to offer only Regulation Service, or Operating Reserves and Regulation Service, the product of (i) the maximum hourly Operating Capacity (MW) for which the Demand Side Resource may be scheduled to provide Regulation Service and Operating Reserves, (ii) the amount of regulation credit support, as appropriate, in $/MW per day, and (iii) three (3) days.

Where:

The amount of regulation credit support ($/MW/day) for each two-month period	=	Price Differential for the same two-month period in the previous year * 24 hours
Two-month periods:	=	January and February March and April May and June July and August September and October November and December
MCP_{Regh}	=	Hourly, time-weighted Market Clearing Price for Regulation Services
Price Differential	=	The hourly differential at the 97th percentile of all hourly differentials between the Day-Ahead and Hour-Ahead MCPRegh for hours in the two-month period of the previous year when the Real-Time MCP exceeded the Day-Ahead MCP

26.4.2.9 Projected True-Up Exposure Component

The Projected True-Up Exposure Component shall apply to any Customer whose four-month true-ups over the most recently invoiced four months average percentage credit exposure to the NYISO is greater than ten percent of the initial invoice settlements for the associated months. Customers subject to the Projected True-Up Exposure Component shall be required to provide secured credit to satisfy the requirement. The Projected True-Up Exposure Component shall be determined according to the following formula:

$$PTE = [\sum_{N4} (Avg\ 4TrueUp * Initial\ 4\ Month)] + [\sum_{NF} (AvgFinalTrueUp * Initial\ Final)]$$

Where:

PTE	=	The amount of secured credit support required for the Projected True-Up Exposure Component
N4	=	Each month with an initial settlement without an associated 4 month settlement
NF	=	Each month with an initial settlement without an associated final bill close-out
Avg4TrueUp	=	Most recent six month rolling average percentage credit exposure of 4 month settlements to associated initial settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
AvgFinalTrueUp	=	Most recent six month rolling average percentage credit exposure of final bill close-outs to associated 4 month settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
Initial 4 Month	=	Initial settlement for the month N4
Initial Final	=	Initial settlement for the month NF

26.4.3 Calculation of Bidding Requirement

The Bidding Requirement shall be an amount equal to the sum of:

(i) the amount of bidding or nominating authorization that the Customer has requested for use in or during, as appropriate, an upcoming ISO-administered TCC auction, which shall account for all positive bids or nominations to purchase TCCs and the absolute value of all negative offers to sell TCCs; *provided, however,* that the amount of credit required for each TCC that the Customer bids or nominates to purchase, whether positive, negative, or zero shall not be less than (a) (2 x $/MW for one-year TCCs) per MW for two-year TCCs, (b) $1,500 per MW for one-year TCCs, (c) $2,000 per MW for six-month TCCs, and (d) $600 per MW for one-month TCCs;

(ii) the approximate amount that the Customer may owe following an upcoming TCC auction as a result of converting expired ETAs into Historic Fixed Price TCCs pursuant to Section 19.2.1 of Attachment M to the OATT, which shall be calculated in accordance with the provisions of Section 19.2.1 regarding the purchase of TCCs with a duration of ten years;

(iii) the amount of bidding authorization that the Customer has requested for use in an upcoming ISO-administered ICAP auction; and

(iv) five (5) days prior to any ICAP Spot Market Auction, the amount that the Customer may be required to pay for UCAP in the auction, calculated as follows:

$$\sum_{L \in S} \left[\begin{array}{l} ICPM_L \ x \ 1000 \ x \ Deficiency_L \\ + \\ ICPM_L \ x \ 1000 \ x \ \dfrac{(ZCP_L - 1)}{2} \ x \ RQT_L \end{array} \right]$$

Where:

S equals a set containing the following locations: each Locality and Rest of State,

L equals a location in the set S,

$ICPM_L$ equals the lesser of $UBRP_L$ or LM_L,

$UBRP_L$ equals the UCAP based reference point (in $/kW-Month) for location L, as determined on the ICAP Demand Curve for that location (or for NYCA, if L is Rest of State) for the applicable Obligation Procurement Period,

LM_L equals (1) for any Locality L that is contained within another Locality X, the greater of CPM_L or CPM_X, or (2) for any other Locality or Rest of State, CPM_L,

CPM_L equals for location L, $(1 + Margin_L)*MCP_L$,

CPM_X equals for location X, $(1 + Margin_X)*MCP_X$,

$Margin_L$ equals 25% if location L is New York City and 100% if location L is G-J Locality, Long Island or Rest of State,

MCP_L equals the Market-Clearing Price for location *L* in the most recent Monthly Auction that established such a price for the month covered by the ICAP Spot Market Auction, measured in dollars per kilowatt-month,

$Deficiency_L$ equals the number of megawatts of Unforced Capacity that are to be procured in location *L* on behalf of that Customer in the ICAP Spot Market Auction in order to cover any deficiency for that Customer that exists in that location after the certification deadline for that ICAP Spot Market Auction less any deficiency calculated for that Customer for any Localities contained within location *L*, such value not to be less than zero,

ZCP_L equals the percentage determined in accordance with Services Tariff Section 5.14.1.2 for the applicable ICAP Demand Curves as established at the $0.00 point for the appropriate Capability Year, and

RQT_L equals (1) if *L* is New York City or Long Island, that Customer's share of the Locational Minimum Unforced Capacity Requirement for location *L* or (2) if *L* is G-J Locality, that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality that remains after reducing this amount by its share of the Locational Minimum Unforced Capacity Requirements for New York City or, (3) if *L* is Rest of State, that Customer's share of the NYCA Minimum Unforced Capacity Requirement that remains after reducing this amount by (a) its share of the Locational Minimum Unforced Capacity Requirements for New York City and Long Island and (b) that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality remaining after accounting for New York City, as calculated in (2) above; such value not to be less than zero.

26.5 Unsecured Credit

A Customer may use Unsecured Credit to satisfy any part of its Operating Requirement or Bidding Requirement other than (i) any credit requirement for bidding on or holding TCCs, (ii) the Projected True-Up Exposure Component, or (iii) a withdrawing Customer's required collateral. Affiliate guarantees are considered a form of Unsecured Credit.

Upon written request of a Customer, the ISO shall determine the amount of Unsecured Credit to be granted to the Customer, if any, in accordance with the ISO's creditworthiness requirements. Upon a Customer's written request, the ISO will provide a written explanation for any changes in the amount of the Customer's Unsecured Credit.

26.5.1 Eligibility

A Customer may be eligible to receive Unsecured Credit if the Customer meets the following criteria:

(i) Creditworthiness

(a) is an Investment Grade Customer,

(b) is an Unrated Customer that is deemed an Investment Grade Customer pursuant to an Equivalency Rating, or

(c) provides an Affiliate guarantee in compliance with Section 26.5.4 of this Attachment K;

AND

(ii) Payment History

(a) has actively participated in the ISO-Administered markets and paid when due all of its invoices during the immediately preceding six months, or

(b) has actively participated in the markets of another independent system operator or regional transmission organization and has paid when due all of its invoices during the immediately preceding six months. Any Customer relying on its payment history in another market to fulfill the requirement of this Section 26.5.1(ii) must provide evidence satisfactory to the ISO of such payment history.

Notwithstanding the foregoing, a Customer otherwise eligible for Unsecured Credit that fails to respond to the ISO's request to update the Customer's list of Affiliates, within the time frame provided by Section 9.2 of the ISO Services Tariff, shall not be eligible for Unsecured Credit.

26.5.2 Market Concentration Cap

A Customer's Unsecured Credit shall not exceed fifty million dollars ($50M) (the "Market Concentration Cap"). Moreover, the maximum amount of Unsecured Credit extended to a group of Customers that are Affiliates shall not exceed, in the aggregate, the Market Concentration Cap.

26.5.3 Determination of Unsecured Credit

26.5.3.1 Starting Point

The starting point for determining the amount of Unsecured Credit to be granted to an Investment Grade Customer, except as provided otherwise in Section 26.5.3.6 of this Attachment K, shall be a percentage of its Tangible Net Worth, as indicated on the matrix contained in Table K-1, subject to the Market Concentration Cap.

26.5.3.2 **Adjustment to Starting Point**

The ISO shall conduct a Credit Assessment of the Customer and shall determine the amount of Unsecured Credit that it shall grant to the Customer by adjusting the Customer's starting point in accordance with the following table:

Starting Point Adjustment

Score Bucket	**Public Score Range**	**Private Score Range**	**Starting Point Adjustment**
1	0.00 – 0.33	0.00 – 0.31	0%
2	0.34 – 0.40	0.32 – 0.39	-20%
3	0.41 – 0.45	0.40 – 0.43	-50%
4	0.46 – 0.50	0.44 – 0.48	-80%
5	0.51+	0.49+	-100%

26.5.3.3 **Adjustment to Unsecured Credit**

(a) In the event of a change in a Customer's (1) Tangible Net Worth, and/or (2) agency rating, the ISO shall recalculate the Customer's starting point and Unsecured Credit amount in accordance with Sections 26.5.3.1 and 26.5.3.2 of this Attachment K.

(b) The ISO may conduct a Credit Assessment of a Customer at any time and adjust the amount of Unsecured Credit granted to the Customer in accordance with the following table:

Unsecured Credit Adjustment

Current Credit Assessment Score Bucket

Prior Credit Assessment Score Bucket

Score Bucket	**1**	**2**	**3**	**4**	**5**
1	0%	-20%	-50%	-80%	-100%
2	25%	0%	-38%	-75%	-100%
3	100%	60%	0%	-60%	-100%
4	400%	300%	150%	0%	-100%
5	N/A	N/A	N/A	N/A	N/A

26.5.3.4 Restoration of Unsecured Credit

A Customer that is subject to a 100% reduction of Unsecured Credit shall not be eligible for Unsecured Credit again until the Customer demonstrates two consecutive quarters of financial performance that would otherwise have qualified the Customer for Unsecured Credit in accordance with Sections 26.5.3.1 and 26.5.3.2 of this Attachment K.

26.5.3.5 Credit Assessment

(a) In performing a Credit Assessment, the ISO shall evaluate specified indicators of credit risk pertaining to a Customer, which indicators will vary depending on whether the Customer is categorized by the ISO as a private entity or a public entity. The ISO shall categorize a Customer as private or public, for Credit Assessment purposes, in accordance with the following criteria:

Primary Criteria	Secondary Criteria	Credit Assessment Category
Standalone public trading company	None	Public
Subsidiary of a public company with its parent company as guarantor	None	Public
Subsidiary of a public company	With assets greater than US$10B	Public
Subsidiary of a public company	Contributes 50% or more of its parent company's revenues or accounts for 50% or more of its assets	Public
Subsidiary of a public company	Contributes less than 50% of its parent company's revenues or represents less than 50% of its assets	Private
Does not satisfy the criteria listed above	None	Private

(b) The ISO shall determine the Credit Assessment score for a Customer based upon the market and financial indicators and weightings, as appropriate, set forth below.

Public Entity Indicators	**Weight**
▪ Market Indicators	
• Absolute CDS Spread	21.3%
• Relative Stock Decline from 3 month high	4.3%
• Stock Return Volatility (3 month std. deviation)	12.7%
▪ Performance	
• Revenue/Market Cap	12.7%

• Retained Earnings/Assets	8.5%
▪ Debt Coverage	
• Total Debt/EBITDA	12.7%
▪ Leverage	
• Debt/(Total Debt + Equity)	8.5%
▪ Liquidity	
• Cash/Assets	4.3%
▪ Qualitative Assessment	15.0%

Private Entity Indicators	**Weight**
▪ Performance	
• Return on Assets	17.5%
• Profit Margin	10.5%
▪ Debt Coverage	
• Total Debt/EBITDA	17.5%
▪ Leverage	
• Total Debt/Total Assets	17.5%
▪ Liquidity	
• Cash/Assets	7.0%
▪ Qualitative Assessment	30.0%

(c) If one or more of the indicators listed above does not exist for a Customer, then the ISO shall, in its sole discretion, reallocate the weight attributed to that indicator either (1) to the remaining indicators proportionately, or (2) entirely to the qualitative assessment indicator.

(d) The qualitative areas evaluated shall include, but shall not be limited to, the following (as applicable): (1) Affiliate financial and market indicators, (2) ratemaking ability and legal right to fully recover end-user costs, (3) industry characteristics, (4) risk policies and procedures, (5) management quality, (6) ability to access funding in difficult market conditions, and (7) historical relationship and payment history with the ISO. A Transmission Owner that can recover end-user costs pursuant to authority granted by the PSC will receive a qualitative assessment score of no worse than five.

26.5.3.6 Public Power Entities

The following additional provisions shall apply to the determination of a Customer's Unsecured Credit:

(a) A Public Power Entity shall qualify for one million dollars ($1M) in Unsecured Credit, without regard for its Tangible Net Worth or Credit Assessment. Municipal electric systems that operate through a joint action agency or a similar municipal affiliation agreement may aggregate their Unsecured Credit amounts of one million dollars ($1M) per member such that the joint action agency will have an Unsecured Credit amount, subject to the Market Concentration Cap, equal to the total of the Unsecured Credit amounts of each individual member. Each such agency will qualify for such aggregated Unsecured Credit treatment subject to the ISO's review of the particular affiliation agreement and the ISO's review of documentation submitted by the agency to demonstrate that it has been formed under the pertinent sections of the New York State Municipal Law.

(b) In lieu of a one million dollar ($1M) grant of Unsecured Credit, a Public Power Entity may request Unsecured Credit based on its Tangible Net Worth and Credit Assessment. In such case, the ISO will consider the Public Power Entity a private entity for Credit Assessment purposes.

26.5.4 Affiliate Guarantees

26.5.4.1 Eligibility

An Affiliate guarantor shall be subject to the ISO's financial assurance requirements as if the Affiliate guarantor were a Customer and shall be assigned a level of Unsecured Credit, if any.

26.5.4.2 Use for Satisfaction of Minimum Capitalization Requirements

A Customer may use an Affiliate guarantor's financial statements to satisfy the capitalization requirement set forth in Section 26.1.1(d) of this Attachment K if (i) no other Customer relies on the Affiliate guarantor's financial statements to satisfy the capitalization requirement, and (ii) the Customer provides an unlimited Affiliate guarantee that satisfies the requirements set forth in Section 26.5.4.3 of this Attachment K. If a Customer provides an Affiliate guarantee solely to satisfy its capitalization requirement, the Affiliate guarantor, notwithstanding Section 26.5.4.1 of this Attachment K, shall not be subject to the ISO financial assurance requirements.

26.5.4.3 Form of Affiliate Guarantee

An Affiliate guarantee must be in a form acceptable to the ISO and issued by an Investment Grade U.S. or Canadian Affiliate. A Customer's failure to provide a source of collateral in an amount sufficient to (i) secure its obligations to the ISO and/or (ii) as applicable, secure its capitalization requirement pursuant to Section 26.1.1(d) of this Attachment K, fifty (50) days prior to the termination of an Affiliate guarantee, which source of collateral shall be guaranteed to remain in effect for a period of not less than one (1) year, shall be a condition of default enabling the ISO to immediately demand payment under the Affiliate guarantee in the amount required to meet Customer's ISO credit requirements, and/or, as applicable, the amount required to secure Customer's capitalization requirement.

26.5.5 Requests for Changes, Appeals

Requests for changes to the amount of a Customer's Unsecured Credit shall be made in writing to the ISO Credit Manager. Appeals of any decision regarding a Customer's Unsecured Credit shall be made in writing to the ISO's Chief Financial Officer and shall include all necessary supporting documentation. The Chief Financial Officer shall determine all appeals within ten (10) business days.

26.13 ~~Retention of a~~ Withdrawing Customer's Collateral

~~To the extent that a Customer's credit requirements are met with a cash deposit or a letter of credit, the ISO shall retain a portion of that collateral u~~Upon ~~the~~ a Customer's withdrawal from the LBMP Market(s) and/or all of the ISO-Administered Markets to secure ~~any~~ the Customer's estimated remaining financial obligations, including, but not limited to, true-up payments or other invoice adjustments, the Customer shall be required to provide secured credit ~~.~~ ~~The amount retained by the ISO shall be determined~~ according to the following formula:

$$RCC = [\sum_{N4} (Avg\,4TrueUp * Initial\ 4\ Month)] + [\sum_{NF} (AvgFinalTrueUp * Initial\ Final)] \cancel{(AFA \times F) + (ASA \times S)}$$

W~~w~~here:

RCC	=	~~Retained Customer Collateral.~~ The amount of secured ~~a Customer's cash deposit or letter of~~ credit to be ~~retained~~ required following ~~the~~ a Customer's withdrawal ~~from the ISO-Administered Markets.~~
N4	=	Each month with an initial settlement without an associated 4 month settlement
NF	=	Each month with an initial settlement without an associated final bill close-out
Avg4TrueUp	=	Most recent six month rolling average percentage credit exposure of 4 month settlements to associated initial settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
AvgFinalTrueUp	=	Most recent six month rolling average percentage credit exposure of final bill close-outs to associated 4 month settlements, not to exceed a market-wide maximum percentage reasonably determined by the ISO
Initial 4 Month	=	Initial settlement for the month N4
Initial Final	=	Initial settlement for the month NF

~~AFA~~	~~=~~	~~Average adjustment to the Customer's initial invoices in its four-month true-ups calculated over the prior six months.~~

~~F – Number of four-month true-ups remaining until all of the Customer's monthly invoices are finalized by the ISO.~~

~~ASA – Average adjustment to the Customer's initial invoices in its six-month true-ups calculated over the prior six months.~~

~~S – Number of six-month true-ups remaining until all of the Customer's monthly invoices are finalized by the ISO.~~