ATTACHMENT B

I. LBMP CALCULATION ~~METHOD~~

The Locational Based Marginal Prices ("LBMPs" or "prices") for Suppliers and Loads in the Real-Time Market will be based on the system marginal costs produced by ~~either~~ the Real-Time Dispatch program (RTD), ~~or during intervals when it is activated, the RTD-CAM program (together "RTD"),~~ and, during intervals when certain conditions exist at Proxy Generator Buses, the Real-Time Commitment ("RTC") program. LBMPs for Suppliers and Loads in the Day-Ahead Market will be based on the system marginal costs produced by the Security Constrained Unit Commitment ("SCUC"). LBMPs calculated by SCUC and RTD will incorporate the incremental dispatch costs of Resources that would be scheduled to meet an increment of Load and, to the extent that tradeoffs exist between scheduling providers to produce Energy or reduce demand, and scheduling them to provide Regulation Service or Operating Reserves, LBMPs shall reflect the effect of meeting an increment of Load at each location on the Bid Production Cost associated with those services. As such, those LBMPs may incorporate: (i) Availability Bids for Regulation Service or Operating Reserves; or (ii) shortage costs associated with the inability to meet a Regulation Service or Operating Reserves requirement under the Regulation Service Demand Curve and Operating Reserve Demand Curves set forth in Rate Schedules 3 and 4 respectively of this ISO Services Tariff.

Additionally, for the purpose of calculating Real-Time LBMPs when RTD is committing and dispatching Resources meeting Minimum Generation Levels ~~as determined by the ISO~~ and

capable of starting in ten minutes pursuant to Section 4.4.3.C of this ISO Services Tariff, RTD shall include in the incremental dispatch cost of each such Resource a start-up cost based on the Start-Up Bid of each such Resource and shall assume for each such Resource a zero downward response rate.

A. LBMP Bus Calculation Method

System marginal costs will be utilized in the *ex ante* computations of SCUC to produce Day-Ahead prices, and RTD and RTC to produce Real-Time LBMP bus prices using the following equations.

The LBMP at bus i can be written as:

$$\gamma_i = \lambda^R + \gamma_i^L + \gamma_i^C$$

Where:

γ_i = LBMP at bus *i* in $/MWh

λ^R = the system marginal price at the Reference Bus

γ_i^L = Marginal Losses Component of the LBMP at bus *i* which is the marginal cost of losses at bus *i* relative to the Reference Bus

γ_i^C = Congestion Component of the LBMP at bus *i* which is the marginal cost of Congestion at bus *i* relative to the Reference Bus

The Marginal Losses Component of the LBMP at any bus *i* within the NYCA is calculated using the equation:

$$\gamma_i^L = \left(DF_i - 1\right)\lambda^R$$

Where:

DF_i = delivery factor for bus i to the system Reference Bus and:

$$DF_i = \left(1 - \frac{\partial L}{\partial P_i}\right)$$

Where:

L = system losses; and

P_i = injection at bus i

The Congestion Component of the LBMP at bus i is calculated using the equation:

$$\gamma_i^C = -\left(\sum_{k \in K} GF_{ik} \mu_k\right)$$, except as noted in Sections I.B.a(i) and I.B.b(i) of this Attachment J.

Where:

K = the set of Constraints;

GF_{ik} = Shift Factor for bus i on Constraint k in the pre- or post-Contingency case which limits flows across that Constraint (the Shift Factor measures the incremental change in flow on Constraint k, expressed in per unit, for an increment of injection at bus i and a corresponding withdrawal at the Reference Bus); and

μ_k = the Shadow Price of Constraint k expressed in $/MWh, provided however, this Shadow Price shall not exceed the Transmission Shortage Cost as defined in Section I.D of this Attachment B.

Substituting the equations for γ_i^L and γ_i^C into the first equation yields:

$$\gamma_i = \lambda^R + \left(DF_i - 1\right)\lambda^R - \sum_{k \in K} GF_{ik} \mu_k$$

LBMPs will be calculated for the Day-Ahead and the Real-Time Markets. In the Day-Ahead Market, the three components of the LBMP at each location will be calculated from the SCUC results and posted for each of the hours of the Dispatch Day. The Real-Time LBMPs will be calculated and posted for each execution of RTD.

BA. Real-Time LBMP Calculation Procedures

For each RTD interval, the ISO shall use the procedures described below in Sections I.BA.1(a)-(ed) to calculate Real-Time LBMPs, the Marginal Losses Component, and the Congestion Component at each Load Zone and Generator bus. The LBMP bus and zonal calculation methods are described in Sections I.AC and E of this Attachment B, respectively. Procedures governing the calculation of LBMPs at External locations Proxy Generator Buses are set forth below in Section I.F of this Attachment B. In addition, when certain conditions exist, as defined in the table below, the ISO shall employ the special scarcity pricing rules described in Sections I.BA.2.a and I.AB.2.b of this Attachment B. Procedures governing the calculation of LBMPs at External locations are set forth below in Section E.

SCR/EDRP NYCA Called and Needed	SCR/EDRP East Called and Needed	Scarcity Pricing Rule to be Used in the West	Scarcity Pricing Rule to be Used in the East
NO	NO	NONE	NONE
NO	YES	NONE	B
YES	NO	A	A
YES	YES	A	A

Where:	
SCR/EDRP NYCA, Called and Needed	Is "YES" if the ISO has called SCR/EDRP resources and determined that, but for the Expected Load Reduction, the Available Reserves would have been less than the NYCA requirement for total 30-Minute Reserves; or is "NO" otherwise.
SCR/EDRP East, Called and Needed	Is "YES" if the ISO has called SCR/EDRP from resources located East of Central-East and determined that, but for the Expected Load Reduction, the Available Reserves located East of Central-East would have been less than the requirement for 10-Minute Reserves located East of Central-East; or is "NO" otherwise.
Pricing Rule West	Identifies the scarcity pricing rule that will be used, if applicable, to determine the LBMP, the Congestion Component of LBMP, and the Marginal Losses Component of LBMP for all buses and Load Zones located West of Central-East, including the Reference Bus.
Pricing Rule East	Identifies the scarcity pricing rule that will be used, if applicable, to determine the LBMP, the Congestion Component of LBMP, and the Marginal Losses Component of LBMP for all buses and Load Zones located East of Central-East.

1. General Procedures

a. Overview

The ISO shall calculate Real-Time Market LBMPs using the three passes of each ~~Real-Time Dispatch~~RTD run, except as noted below in Section I.B~~A~~.1.c. A new ~~Real-Time Dispatch~~RTD run will initialize every five minutes and each run will produce prices and schedules for five points in time (the optimization period). Only the prices and

schedules determined for the first time point of the optimization period ~~in time of a Real-Time Dispatch run~~ will be binding. Prices and schedules for the other four time points of the optimization period ~~in time shall be~~are advisory ~~only~~.

Each ~~Real-Time Dispatch~~RTD run shall, depending on when it occurs during the hour, have a bid optimization horizon of fifty, fifty-five, or sixty minutes beyond the first, or binding, point in time that it addresses. The ~~initialization~~ posting time point and the ~~binding~~first time point~~first and second points of time~~ in each ~~Real-Time Dispatch~~RTD run will be five minutes apart. The remaining points in time in each run can be either five, ten, or fifteen minutes apart depending on when the run begins within the hour. The points in time in each RTD run are arranged so that they parallel as closely as possible RTC's fifteen minute evaluations.

For example, the RTD run that posts its results at the beginning of an hour ("RTD_0") will initialize at the fifty-fifth minute of the previous hour and produce schedules and prices over a fifty-five minute optimization period. RTD_0 will produce binding prices and schedules for the RTD interval beginning when it posts its results (i.e., at the beginning of the hour) and ending at the first time point in its optimization period (i.e., five minutes after the hour). It will produce advisory prices and schedules for its second time point, which is ten minutes after the first time point in its optimization period, and advisory prices and schedules for its third, fourth and fifth time points, each of which would be fifteen minutes apart. The RTD run that posts its results at five minutes after the beginning of the hour ("RTD_5") will initialize at the beginning of the hour and produce prices over a fifty minute optimization period. RTD_5 will produce binding prices and schedules for the RTD interval beginning when it posts its results (i.e., at five minutes after

the hour) and ending at the first time point in its optimization period (i.e., ten minutes after the hour.) It will produce advisory prices and schedules for its second time point (which is five minutes after the first time point), and advisory prices and schedules for its third, fourth and fifth time points, each of which would be fifteen minutes apart. The RTD run that posts its results at ten minutes after the beginning of the hour ("RTD_{10}") will initialize at five minutes after the beginning of the hour and produce prices over a sixty minute optimization period. RTD_{10} will produce binding prices and schedules for the interval beginning when it posts its results (i.e., at ten minutes after the hour) and ending at the first time point in its optimization period (i.e., fifteen minutes after the hour.) It will produce advisory prices and schedules for its second, third, fourth and fifth time points, each of which would be fifteen minutes after the preceding time point.

b. Description of the Real-Time Dispatch Process

(i) The First Pass

The first ~~Real-Time Dispatch~~RTD pass consists of a least bid cost, multi-period co-optimized dispatch for Energy, Regulation Service and Operating Reserves that treats all Fixed Block Units that are committed by RTC, or are otherwise instructed to be online or remain online by the ISO as if they were blocked on at their UOL_N or UOL_E, whichever is applicable. Resources meeting Minimum Generation Levels and capable of being started in ten minutes that have not been committed by RTC are treated as flexible (i.e. able to be dispatched anywhere between zero (0) MW and their UOL_N or UOL_E, whichever is applicable). The first pass establishes "physical base points" (i.e., real-time Energy schedules) and real-time schedules for Regulation

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Service and Operating Reserves for the first time point of the optimization period. ~~run.~~ Physical base points and schedules established for the first time point shall be binding and shall remain in effect until the results of the next run are posted. Physical base points and schedules established for all subsequent time points shall be advisory. The first pass also produces information that is used to calculate the RTD Base Point Signals that the ISO sends to Suppliers.

When establishing physical base points, the ISO shall assume that each Generator will move toward the physical base point established during the first pass of the prior ~~Real-Time Dispatch~~RTD run at its specified response rate.

A. Upper and Lower Dispatch Limits for Dispatchable Resources ~~O~~other ~~Than~~ than Intermittent Power Resources ~~T~~that Depend on Wind as Their Fuel

When setting physical base points for a Dispatchable Resource at the first time point, the ISO shall ensure that they do not fall outside of the bounds established by the Dispatchable Resource's lower and upper dispatch limits. A Dispatchable Resource's dispatch limits shall be determined based on whether it was feasible for it to reach the physical base point calculated by the last RTD run given its: (A) metered output level at the time that the ~~Real-Time Dispatch~~RTD run was initialized; (B) response rate; (C) minimum generation level; and (D) UOL_N or UOL_E, whichever is applicable. If it was feasible for the Dispatchable Resource to reach that base point, then its upper and lower dispatch limits shall reflect the highest and lowest output levels it could achieve over the next RTD interval, given its UOL_N or UOL_E, as applicable, and starting from its previous base point. If it was not feasible for the Dispatchable Resource to reach that base point, then its upper and lower dispatch limits shall reflect the

highest and lowest output levels it could achieve over the next RTD interval, given its UOL_N or UOL_E, as applicable, but instead starting from the feasible output level closest to its previous base point.

When setting physical base points for a Dispatchable Resource at later time points, the ISO shall ensure that they do not fall outside of the bounds established by the Resource's lower and upper dispatch limits for that time point. A Resource's dispatch limits at later time points shall be based on its: (A) dispatch limits from the first time point; (B) response rate; (C) minimum generation~~, or, to the extent that the ISO's software can support demand side participation, Demand Reduction level~~; and (D) UOL_N or UOL_E, whichever is applicable.

The upper dispatch limit for a Dispatchable Resource at later time points shall be determined by increasing the upper dispatch limit from the first time point at the Resource's response rate, up to its UOL_N or UOL_E, whichever is applicable. The lower dispatch limit for a Dispatchable Resource at later time points shall be determined by decreasing the lower dispatch limit from the first time point at the Resource's response rate, down to its minimum generation level or, to the extent that the ISO's software can support demand side participation, to a Demand Side Resource's Demand Reduction level.

The RTD Base Point Signals sent to Dispatchable Resources shall be the same as the physical base points determined above.

B. Upper and Lower Dispatch Limits for Intermittent Power Resources ~~That~~ that Depend on Wind as Their Fuel

~~For the first time point of the optimization period and later time points for Intermittent Power Resources depending on wind as their fuel,~~ For all time points of the optimization period, the Lower Dispatch Limit shall be zero and the Upper Dispatch Limit shall be the Wind Energy Forecast for that Resource. For Intermittent Power Resources depending on wind as their fuel in commercial operation as of January 1, 2002 with a name plate capacity of 12 MWs or fewer, the Upper and Lower Dispatch Limits shall be the output level specified by the Wind Energy Forecast.

C. Setting Physical Basepoints for Fixed Generators

~~When setting physical base points for Self-Committed Fixed Generators in any time point, the ISO shall consider the feasibility of the Resource reaching the output levels that it specified in its self-commitment request for each time point in the RTD run given: (A) its metered output at the time that the run was initialized; and (B) its response rate[h1].~~

[tjs2]

When setting physical base points for ISO-Committed Fixed Generators in any time point, the ISO shall consider the feasibility of the Resource reaching the output levels scheduled for it by RTC for each time point in the RTD run given: (A) its metered output at the time that the run was initialized; and (B) its response rate.

The RTD Base Point Signals sent to Self-Committed Fixed Generators shall follow the quarter hour operating schedules that those Generators submitted in their real-time self-commitment requests.

The RTD Base Point Signals sent to ISO-Committed Fixed Generators shall follow the quarter hour operating schedules established for those Generators by RTC, regardless of their actual performance. To the extent possible, the ISO shall honor the response rates specified by such Generators when establishing RTD Base Point Signals. If a Self-Committed Fixed Generator's operating schedule is not feasible based on its real-time self-commitment requests then its RTD Base Point Signals shall be determined using a response rate consistent with the operating schedule changes.

When setting physical base points for Self-Committed Fixed Generators in any time point, the ISO shall consider the feasibility of the Resource reaching the output levels that it specified in its self-commitment request for each time point in the RTD run given: (A) its metered output at the time that the run was initialized; and (B) its response rate

(ii) The Second Pass

The second ~~Real-Time Dispatch~~RTD pass consists of a least bid cost, multi-period, co-optimized dispatch for Energy, Regulation Service, and Operating Reserves that treats all Fixed Block Units that are committed by RTC, all Resources meeting Minimum Generation Levels and capable of starting in ten minutes that have not been committed by RTC and all units otherwise instructed to be online or remain online by the ISO, as flexible (i.e., able to be dispatched anywhere between zero (0) MW and their UOL_N or UOL_E, whichever is applicable),

regardless of their minimum run-time status. This pass shall establish "hybrid base points" (i.e., real-time Energy schedules) that are used in the third pass to determine whether minimum run-time constrained Fixed Block Units should be blocked on at their UOL_N or UOL_E, whichever is applicable, or dispatched flexibly. The ISO will not use schedules for Energy, Regulation Service and Operating Reserves established in the second pass to dispatch Resources.

The upper and lower dispatch limits used for ISO-Committed Fixed and Self-Committed Fixed Resources shall be the same as the physical base points calculated in the first pass.

A. Upper and Lower Dispatch Limits for Dispatchable Resources ~~O~~other ~~T~~than Intermittent Power Resources ~~T~~that Depend on Wind as Their Fuel

The upper dispatch limit for the first time point of the second pass for a Dispatchable Resource shall be the higher of: (A) its upper dispatch limit from the first pass; or (B) its "pricing base point" from the first time point of the prior RTD interval adjusted up within its Dispatchable range for any possible ramping since that pricing base point was issued less the higher of: (i) the physical base point established during the first pass of the ~~Real-Time Dispatch~~RTD immediately prior to the previous ~~Real-Time Dispatch~~RTD minus the Resource's metered output level at the time that the current ~~Real-Time Dispatch~~RTD run was initialized, or (ii) zero.

The lower dispatch limit for the first time point of the second pass for a Dispatchable Resource shall be the lower of: (A) its lower dispatch limit from the first pass; or (B) its "pricing base point" from the first time point of

the prior RTD interval adjusted down within its Dispatchable range to account for any possible ramping since that pricing base point was issued plus the higher of: (i) the Resource's metered output level at the time that the current ~~Real-Time Dispatch~~RTD run was initialized minus the physical base point established during the first pass of the ~~Real-Time Dispatch~~RTD immediately prior to the previous ~~Real-Time Dispatch~~RTD; or (ii) zero.

The upper dispatch limit for the later time points of the second pass for a Dispatchable Resource shall be

determined by increasing its upper dispatch limit from the first time point at the Resource's response rate, up to its UOL_N or UOL_E, whichever is applicable. The lower dispatch limit for the later time points of the second pass for such a Resource shall be determined by decreasing its lower dispatch limit from the first time point at the Resource's response rate, down to its minimum generation level.

B. Upper and Lower Dispatch Limits for Intermittent Power Resources ~~T~~that Depend on Wind as Their Fuel

For the first time point and later time points for Intermittent Power Resources that depend on wind as their fuel, the Lower Dispatch Limit shall be zero and the Upper Dispatch Limit shall be the Wind Energy Forecast for that Resource. For Intermittent Power Resources depending on wind as their fuel in commercial operation as of January 1, 2002 with a name plate capacity of 12 MWs or fewer, the Upper and Lower Dispatch Limits shall be the output level specified by the Wind Energy Forecast.

(iii) The Third Pass

The third ~~Real-Time Dispatch~~RTD pass is the same as the second pass with three variations. First, the third pass treats Fixed Block Units that are committed by RTC, or are otherwise instructed to be online or remain online by the ISO that received a non-zero physical base point in the first pass, and that received a hybrid base point of zero in the second pass, as blocked on at their UOL_N or UOL_E, whichever is applicable. Second, the third pass produces "pricing base points" instead of hybrid base points. Third, and finally, the third pass calculates real-time

Energy prices and real-time Shadow Prices for Regulation Service and Operating Reserves that the ISO shall use for settlement purposes pursuant to Article 4, Rate Schedule 3~~,~~ and Rate Schedule 4 of this ISO Services Tariff respectively. The ISO shall not use schedules for Energy, Regulation Service and Operating Reserves that are established in the third pass to dispatch Resources.

c. Variations in RTD-CAM

When the ISO activates RTD-CAM, the following variations to the rules specified above in Sections I.B~~A~~.1.a and I.B~~A~~.1.b shall apply.

First, if the ISO enters reserve pickup mode: (i) the ISO will produce prices and schedules for a single ten minute interval (not for a multi-point co-optimization period); (ii) the Regulation Service markets will be temporarily suspended as described in Rate Schedule 3 of this ISO Services Tariff; (iii) the ISO will have discretion to make additional Generator commitments before executing the three ~~Real-Time Dispatch~~RTD passes; and (iv) the ISO will have discretion to allow the RTD Base Point Signal of each Dispatchable Generator to be set to the higher of the Generator's physical base point or its actual generation level.

Second, if the ISO enters maximum generation pickup mode: (i) the ISO will produce prices and schedules for a single five minute interval (not for a multi-point co-optimization period); (ii) the Regulation Service markets will be temporarily suspended as described in Rate Schedule 3 of this ISO Services Tariff; (iii) the ISO will have discretion to make additional Generator commitments in the affected area before executing the three ~~Real-Time Dispatch~~RTD passes; and (iv) the ISO will have discretion to either move the RTD Base Point Signal of each Generator within the affected area towards its UOL_E at its emergency response rate or set it at a level equal to its physical base point.

Third, if the ISO enters basepoints ASAP – no commitments mode it will produce prices and schedules for a single five minute interval (not for a multi-point co-optimization period).

Fourth, if the ISO enters basepoints ASAP – commit as needed mode: (i) the ISO will produce price and schedules for a single five minute interval (not for a multi-point co-optimization period); and (ii) the ISO may make additional commitments of Generators that are capable of starting within ten minutes before executing the three ~~Real-Time Dispatch~~RTD passes.

Fifth, and finally, if the ISO enters re-sequencing mode it will solve for a ten-minute optimization period consisting of two five-minute time points.

~~**d. Calculating the Marginal Losses and Congestion Components**~~

~~The Marginal Losses Component of the price at each location shall be calculated as the product of the price at the Reference Bus and a quantity equal to the delivery factor produced by RTD for that location minus one (1).~~

~~The Congestion Component of the price at each location shall be calculated as the price at that location, minus the Marginal Losses Component of the price at that location, minus the price at the Reference Bus.~~

~~e~~d. The Real-Time Commitment ("RTC") Process and Automated Mitigation

Attachment H ~~to the~~ of this Services Tariff shall establish automated market power mitigation measures that may affect the calculation of Real-Time LBMPs. To the extent that these measures are implemented they shall be incorporated into the RTC software through the establishment of a second, parallel, commitment evaluation that will assess the impact of the mitigation measures. The first evaluation, referred to as the "RTC evaluation," will determine the schedules and prices that would result using an original set of offers and Bids before any additional mitigation measures, the necessity for which will be considered in the RTC evaluation, are applied. The second evaluation, referred to as the "RT-AMP" evaluation, will determine the schedules and prices that would result from using the original set of offers and bids as modified by any necessary mitigation measures. Both evaluations will follow the rules governing RTC's operation that are set forth in Article 4 of, and this Attachment B to, ~~the~~ this ISO Services Tariff (as well as the corresponding provisions of Attachment J to the ISO OATT).

In situations where Attachment H specifies that real-time automated mitigation measures be utilized, the ISO will perform the two parallel RTC evaluations in a manner that enables it to implement mitigation measures one RTC run (i.e., fifteen minutes) in the future. For example, RTC_{15} and $RT\text{-}AMP_{15}$ will perform Resource commitment evaluations simultaneously. $RT\text{-}AMP_{15}$ will then apply the mitigation "impact" test, account for reference bid levels as

appropriate and determine which Resources are actually to be mitigated. This information will then be conveyed to RTC_{30} which will make Resource commitments consistent with the application of the mitigation measures (and will thus indirectly be incorporated into future RTD runs).

2. Scarcity Pricing Rules

~~2.~~a. Scarcity Pricing Rule "A"

The ISO shall implement the following price calculation procedures

for intervals when scarcity pricing rule "A" is applicable.

(i) Except as noted in Section I.BA.2a(ii) below:

- The system marginal price (λ^R , as defined in Section I.AC of this Attachment J)LBMP at the Reference Bus shall be determined by dividing the lowest offer price at which the quantity of Special Case Resources offered is equal to

$RREQ_{NYCA} - (RACT_{NYCA} - ELR_{NYCA})$, or $500/MWh if the total quantity of Special Case Resources offered is less than $RREQ_{NYCA} - (RACT_{NYCA} - ELR_{NYCA})$, by the weighted average of the delivery factors produced by RTD that the ISO uses in its calculation of prices for Load Zone J in that RTD interval, where:

- $RACT_{NYCA}$ equals the quantity of Available Reserves in the RTD interval;
- $RREQ_{NYCA}$ equals the 30-Minute Reserve requirement set by the ISO for the NYCA; and
- ELR_{NYCA} equals the Expected Load Reduction in the NYCA from the Emergency Demand Response Program and Special Case Resources in that RTD interval.

- The Marginal Losses Component of the LBMP at each location shall be calculated as as defined in Section I.AC of this Attachment B.
- The Congestion Component of the LBMP at each location shall be set to zero.[h4]

- the product of the LBMP at the Reference Bus and a quantity equal to the delivery factor produced by RTD for that location minus one. The LBMP at each location shall be as defined in Section I.AC of this Attachment B.the sum of the Marginal Losses Component of the LBMP at that location, plus the LBMP at the Reference Bus.

- The Congestion Component of the LBMP at each location shall be set to zero.

(ii) However, the ISO shall not use this procedure to set the LBMP for any location lower than the LBMP for that Load Zone or Generator bus calculated pursuant to Section I.BA.1, above. In cases in which the procedures described above would cause this rule to be violated:

- The LBMP at each location (including the Reference Bus) shall be set to the greater of the LBMP ~~calculated~~ determined for that location pursuant to Section I.~~A~~B.1 of this Attachment B; or the LBMP calculated for that location using the scarcity pricing rule "A" procedures as per Pricing Rule I.A.2(a)i above..

- ~~The Marginal Losses Component of the LBMP at each location shall be calculated as the product of the LBMP at the Reference Bus and a quantity equal to the delivery factor produced by RTD for that location minus one.~~

- ~~The Congestion Component of the LBMP at each location shall be calculated as the LBMP at that location, minus the LBMP at the Reference Bus, minus the Marginal Losses Component of the LBMP at that location~~[h5].

~~2.~~b. Scarcity Pricing Rule "B"

The ISO shall implement the following procedures in intervals when scarcity pricing rule "B" is applicable:

(i) Except as noted in Pricing Rule 2b(ii) below:

- The Marginal Losses Component of the LBMP at each location shall be calculated as defined in Section I.A~~C~~ of this Attachment B.~~the product of the LBMP calculated for the Reference Bus (according to Section I.A.1) and a quantity equal to the delivery factor produced by SCD for that location minus one.~~

- The Congestion Component of the LBMP at each location shall be equal to the lowest offer price at which the quantity of Special Case Resources offered is equal

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to $RREQ_{East} - (RACT_{East} - ELR_{East})$, or $500/MWh if the total quantity of Special Case Resources offered is less than $RREQ_{East} - (RACT_{East} - ELR_{East})$, minus the LBMP calculated for the Reference Bus (according to Section I.BA.1), minus the Marginal Losses Component of the LBMP for Load Zone J,

where:

- $RACT_{East}$ equals the quantity of Available Reserves located East of Central-East in that RTD interval;
- $RREQ_{East}$ equals the 10-Minute Reserve requirement set by the ISO for the portion of the NYCA located East of the Central-East interface; and
- ELR_{East} equals the Expected Load Reduction East of Central-East from the Emergency Demand Response Program and Special Case Resources in that RTD interval.

- The LBMP at each location shall be the sum of the LBMP calculated as defined in Section I.CA of this Attachment B for the Reference Bus (according to Section I.BA.1) and the Marginal Loss Component and the Congestion Component for that location.

(ii)However, the ISO shall not use this procedure to set the LBMP for any location lower than the LBMP for that Load Zone or Generator bus calculated determined pursuant to Section I.BA.1, above. In cases in which the procedures described above would cause this rule to be violated:

(ii) The LBMP at each such location shall be set to the LBMP calculated determined for that location pursuant to Section I.BA.1.

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~~• The Marginal Losses Component of the LBMP at each location shall be calculated as the product of the LBMP calculated for the Reference Bus (according to Section I.A.1) and a quantity equal to the delivery factor produced by RTD for that location minus one.~~

~~• The Congestion Component of the LBMP at each such location shall be calculated as the LBMP at that location, minus the LBMP calculated for the Reference Bus (according to Section I.A.1), minus the Marginal Losses Component of the LBMP at that location.~~

~~B~~C. Day-Ahead LBMP Calculation Procedures

LBMPs in the Day-Ahead Market are calculated using five passes. The first two passes are commitment and dispatch passes; the last three are dispatch only passes.

Pass 1 consists of a least cost commitment and dispatch to meet Bid Load and reliable operation of the NYS Power System that includes Day-Ahead Reliability Units.

It consists of several steps. Step 1A is a complete Security Constrained Unit Commitment ("SCUC") to meet Bid Load. At the end of this step, committed Fixed Block Units, Imports, Exports, ~~v~~Virtual ~~s~~Supply, V~~v~~irtual ~~l~~Load[rjh7], Demand Side Resources and non-Fixed Block Units are dispatched to

meet Bid Load with Fixed Block Units treated as dispatchable on a flexible basis. For mitigation purposes, LBMPs are calculated from this dispatch. Following Step 1A, SCUC tests for automated mitigation procedure ("AMP") activation.

If AMP is activated, Step 1B tests to determine if the AMP will be triggered by mitigating offer prices subject to mitigation that exceed the conduct threshold to their respective reference prices. These mitigated offer prices together with all originally submitted offer prices not subject to automatic mitigation are then used to commit generation and dispatch energy to meet Bid Load. This step is another iteration of the ~~Security Constrained Unit Commitment~~SCUC process. At the end of Step 1B, committed Fixed Block Units, Imports, Exports, ~~v~~Virtual ~~s~~Supply, ~~virtual~~ Virtual ~~load~~Demand Load Demand Side Resources, and non-Fixed Block Units are again dispatched to meet Bid Load using the same mitigated or unmitigated Bids used to determine the commitment to meet Bid Load, with Fixed Block Units treated as dispatchable on a flexible basis. For mitigation purposes, LBMPs are again calculated from this dispatch. The LBMPs determined at the end of Step 1B are compared to the LBMPs determined at the end of Step 1A to determine the hours and zones in which the impact test is met.

In Step 1C, generation offer prices subject to mitigation that exceed the conduct threshold are mitigated for those hours and zones in which the impact test was met in Step 1B. The

mitigated offer prices, together with the original unmitigated offer price of units whose offer prices were not subject to mitigation, or did not trigger the conduct or impact thresholds, are used to commit generation and dispatch energy to meet Bid Load. This step is also a complete iteration of the ~~Security Constrained Unit Commitment~~SCUC process. At the end of Step 1C, committed Fixed Block Units, Imports, Exports, virtual supply, virtual load, Demand Side Resources, and non-Fixed Block Units are again dispatched to meet Bid Load, with Fixed Block Units treated as dispatchable on a flexible basis. For mitigation purposes, LBMPs are again calculated from this dispatch.

All Demand Side Resources and non-Fixed Block Units committed in the final step of Pass 1 (which could be either step 1A, 1B, or 1C depending on activation of and the AMP) are blocked on at least to minimum load in Passes 4 through 6. The resources required to meet local system reliability are determined in Pass 1.

Pass 2 consists of a least cost commitment and dispatch of Fixed Block Units, Imports, Exports, Demand Side Resources and non-Fixed Block Units to meet forecast Load requirements in excess of Bid Load, considering the Wind Energy Forecast, that minimizes the cost of incremental Minimum Generation and Start Up Bids, given revenues for Minimum Generation Energy based on LBMPs calculated in Pass 1, and assumes all Fixed Block Units are dispatchable on a flexible basis. Incremental Import Capacity needed to meet forecast Load requirements is determined in Pass 2. Fixed Block Units committed in this pass are not included in the least cost dispatches of Passes 5 or 6. Demand Side Resources and non-Fixed Block Units committed in this step are blocked on at least to minimum Load in Passes 4 through 6. Intermittent Power Resources that depend on wind as their fuel committed in this pass as a result of the consideration of the Wind Energy Forecast are not blocked in Passes 5 or 6.

Pass 3 is reserved for future use.

Pass 4 consists of a least cost dispatch to forecast Load. It is not used to set schedules or prices. It is used for operational purposes and provides a dispatch of Fixed Block Units, Imports, Exports, Demand Side Resources and non-

Fixed Block Units committed in Passes 1 or 2. Incremental Import Capacity committed in Pass 2 is re-evaluated and may be reduced if no longer required.

Pass 5 consists of a least cost dispatch of Fixed Block Units, Importss, Exports, ~~v~~Virtual ~~s~~Supply, ~~v~~Virtual ~~l~~Load, Demand Side Resources and non-Fixed Block Units committed to meet Bid Load, based where appropriate on offer prices as mitigated in Pass 1. Fixed Block Units are treated as dispatchable on a flexible basis. LBMPs used to settle the Day-Ahead Market are calculated from this dispatch. The Shadow Prices used to compute Day-Ahead Market clearing prices for Regulation Service and for Operating Reserves in Rate Schedules 3 and 4 of this ISO Services Tariff are also calculated from this dispatch. Final schedules for all Imports, Exports, ~~v~~Virtual ~~s~~Supply, ~~v~~Virtual ~~l~~Load, Demand Side Resources and non-Fixed Block Units in the Day-Ahead Market are calculated from this dispatch.

Pass 6 consists of a least cost dispatch of all Day-Ahead committed Resources, Imports, Exports, ~~v~~Virtual ~~s~~Supply, ~~virtual~~and Virtual ~~l~~Load, based where appropriate on offer prices as mitigated in Pass 1, with the schedules of all Fixed Block Units committed in the final step of Pass 1 blocked on at maximum Capacity. Final schedules for Fixed Block Units in the Day-Ahead Market are calculated from this dispatch.

C. LBMP Calculation Method

System marginal costs will be utilized in an *ex ante* computation to produce Day-Ahead and Real-Time LBMP bus prices using the following equations.

The LBMP at bus i can be written as:

$$\gamma_i = \lambda^R + \gamma^L_i + \gamma^C_i \qquad \gamma_i = \lambda^R + \gamma^L_i + \gamma^C_i$$

Where:

γ_i = LBMP at bus *i* in $/MWh

λ^R = the system marginal price at the Reference Bus

γ^L_i = Marginal Losses Component of the LBMP at bus *i* which is the marginal cost of losses at bus *i* relative to the Reference Bus

γ^C_i = Congestion Component of the LBMP at bus *i* which is the marginal cost of Congestion at bus *i* relative to the Reference Bus

[tjs8]

~~The Marginal Losses Component of the LBMP at any bus *i* within the NYCA is calculated using the equation:~~

~~$\gamma_i^L = (DF_i - 1)\lambda^R$~~ $\gamma_i^L = \left(DF_i - 1\right)\lambda^R$

[tjs9]

Where:

DF_i = delivery factor for bus *i* to the system Reference Bus and:

$$DF_i = \left(1 - \frac{\partial L}{\partial P_i}\right) \qquad DF_i = \left(1 \quad \frac{\partial L}{\partial P_i}\right)$$

Where:

L = system losses; and
P_i = injection at bus *i*

The Congestion Component of the LBMP at bus *i* is calculated using the equation:

$$\gamma_i^C = \left(\sum_{k \in K} GF_{ik}\,\mu_k\right), \text{ except as noted in Sections I.A.a(i) and I.A.b(i) of this Attachment J.}$$

$$\gamma_i^c = -\left(\sum_{k \in K}^{n} \mathrm{GF}_{ik}\mu_k\right)$$

Where:

K = the set of Constraints;

GF_{ik} = Shift Factor for bus *i* on Constraint *k* in the pre- or post-Contingency case which limits flows across that Constraint (the Shift Factor measures the incremental change in flow on Constraint *k*, expressed in per unit, for an increment of injection at bus *i* and a corresponding withdrawal at the Reference Bus); and

μ_k = the Shadow Price of Constraint *k* expressed in $/MWh, provided however, this Shadow Price shall not exceed the Transmission Shortage Cost as defined in Section I.D of this Attachment B.

Substituting the equations for γ_i^L and γ_i^C into the first equation yields:

$$\gamma_i = \lambda^R + (DF_i - 1)\lambda^R - \sum_{k \in K} GF_{ik}\,\mu_k$$

$$\gamma_i = \lambda^R + \left(DF_i - 1\right)\lambda^R - \sum_{k \in K} GF_{ik}\,\mu_k \quad \text{[tjs10]}$$

~~LBMPs will be calculated for the Day-Ahead and the Real-Time Markets. In the Day-Ahead Market, the three components of the LBMP at each location will be calculated from the SCUC results and posted for each of the twenty four (24) hours of the next day. The Real-Time LBMPs will be calculated and posted for each execution of RTD.~~[tjs11]

D. Determination of Transmission Shortage Cost

The Transmission Shortage Cost represents the limit on system costs associated with efficient dispatch to meet a particular Constraint. It is the maximum Shadow Price that will be used in calculating LBMPs. The Transmission Shortage Cost is set at $4000 / MWh.

The ISO may periodically evaluate the Transmission Shortage Cost to determine whether it is necessary to modify the Transmission Shortage Cost to avoid future operational or reliability problems. The ISO will consult with its Market Monitoring Unit after it conducts this evaluation. If the ISO determines that it is necessary to modify the Transmission Shortage Cost in order to avoid future operational or reliability problems the resolution of which would otherwise require recurring operator intervention outside normal market scheduling procedures, in order to avoid among other reliability issues, a violation of NERC Interconnection Reliability Operating Limits or System Operating Limits, it may temporarily modify it for a period of up to ninety days, provided however the NYISO shall file such change with the Commission pursuant to Section 205 of the Federal Power Act within 45 days of such modification. If circumstances reasonably[rjh12] [tjs13]

allow, the ISO will consult with its Market Monitoring Unit, the Business Issues Committee, the Commission, and the PSC before implementing any such modification. In all circumstances, the ISO will consult with those entities as soon as reasonably possible after implementing a temporary modification and shall explain the reasons for the change.[tjs14]

The responsibilities of the ISO and the Market Monitoring Unit in evaluating and modifying the Transmission Shortage Cost, as necessary, ~~that are addressed in the above section of Attachment B to the Services Tariff~~ are ~~also~~ addressed in Attachment O, Section 4.6.~~5~~8.1 of the~~is~~ Market Services Tariff ~~-~~("Market Monitoring Plan~~-~~")[rjh15].

Filed to comply with Order No. 719 of the Federal Energy Regulatory Commission, Docket Nos. RM07-19-000 and AD07-7-000, issued October 17, 2008, 125 FERC ¶ 61,071 (2008).

~~E~~E. Zonal LBMP Calculation Method

The computation described in Section I.A~~C~~ of this Attachment B~~above~~ is at the bus level. An eleven (11) zone model will be used for the LBMP billing related to Loads. The LBMP for a zone will be a Load weighted average of the Load bus LBMPs in the zone. The Load weights which will sum to unity will be predetermined by the ISO. Each component of the LBMP for a zone will be calculated as a Load weighted average of the Load bus LBMP components in the zone. The LBMP for a zone *j* can be written as:

$$\gamma_j^Z = \lambda^R + \gamma_j^{L,Z} + \gamma_j^{C,Z}$$

where:

γ_j^Z = LBMP for zone *j*,

$\gamma_j^{L,Z} = \sum_{i=1}^{n} W_i \gamma_i^L$ is the Marginal Losses Component of the LBMP for zone *j*;

$\gamma_j^{C,Z} = \sum W_i \gamma_i^C$ is the Congestion Component of the LBMP for zone *j*;

n = number of Load buses in zone *j* for which LBMPs are calculated; and

W_i = load weighting factor for bus *i*.

~~The zonal LBMPs will be a weighted average of the Load bus LBMPs in the zone. The weightings will be predetermined by the ISO.~~[h16]

~~F~~F. Real Time LBMP Calculation Methods for Proxy Generator Buses, Non-Competitive Proxy Generator Buses and Proxy Generator Buses Associated with Designated Scheduled Lines

1. General Rules

External Generators and Loads can bid into the LBMP Market or participate in Bilateral Transactions. External Generators may arrange Bilateral Transactions with Internal or External Loads and External Loads may arrange Bilateral Transactions with Internal Generators.

The Generator and Load locations for which LBMPs will be calculated will initially be limited to a pre-defined set of buses External to the NYCA. LBMPs will be calculated for each bus within this limited set. The three components of LBMP will be calculated from the results of RTD, or, except as set forth in Sections I.F.2 and I.F.3 below, in the case of a Proxy Generator Bus, from the results of RTC_{15}[rjh17] during periods in which (1) proposed economic transactions over the Interface between the NYCA and the Control Area with which that Proxy Generator Bus is associated would exceed the Available Transfer Capability for the Proxy Generator Bus or for that Interface, (2) proposed interchange schedule changes pertaining to the NYCA as a whole would exceed any Ramp Capacity limits in place for the NYCA as a whole, or (3) proposed interchange schedule changes pertaining to the Interface between the NYCA and the Control Area with which that Proxy Generator Bus is associated would exceed any Ramp [tjs18]

Capacity limit imposed by the ISO for the Proxy Generator Bus or for that Interface.[tjs19]

2. Rules for Non-Competitive Proxy Generator Buses

Real-Time LBMPs for a Non-Competitive Proxy Generator Bus shall be determined as follows.

When (i) proposed Real-Time Market economic net Import transactions into the NYCA from the Control Area in which the Non-Competitive Proxy Generator Bus is located would exceed the Available Transfer Capability for the Interface between the NYCA and the Control Area in which the Non-Competitive Proxy Generator Bus is located or would exceed the Available Transfer Capability of the Non-Competitive Proxy Generator Bus, or (ii) proposed interchange schedule changes pertaining to increases in Real-Time Market net imports into the NYCA from the Control Area in which the Non-Competitive Proxy Generator Bus is located would exceed the Ramp Capacity limit imposed by the ISO for the Interface between the NYCA and the Control Area in which the Non-Competitive Proxy Generator Bus is located or would exceed the Ramp Capacity limit imposed by the ISO for the Non-Competitive Proxy Generator Bus, the Real-Time LBMP at the Non-Competitive Proxy Generator Bus will be the higher of (i) the RTC-determined price at that Non-Competitive Proxy Generator Bus or (ii) the lower of the LBMP determined by RTD for that Non-Competitive Proxy Generator Bus or zero.

When (i) proposed Real-Time Market economic net Export Transactions from the NYCA to the Control Area in which the Non-Competitive Proxy Generator Bus is located would exceed the Available Transfer Capability for the Interface between the NYCA and the Control Area in

which the Non-Competitive Proxy Generator Bus is located or would exceed the Available Transfer Capability of the Non-Competitive Proxy Generator Bus, or (ii) proposed interchange schedule changes pertaining to increases in Real-Time Market net Exports from the NYCA to the Control Area in which the Non-Competitive Proxy Generator Bus is located would exceed the Ramp Capacity limit imposed by the ISO for the Interface between the NYCA and the Control Area in which that Non-Competitive Proxy Generator Bus is located or would exceed the Ramp Capacity limit imposed by the ISO for the Non-Competitive Proxy Generator Bus, the Real-Time LBMP at the Non-Competitive Proxy Generator Bus will be the lower of (i) the RTC-determined price at the Non-Competitive Proxy Generator Bus or (ii) the higher of the LBMP determined by RTD for the Non-Competitive Proxy Generator Bus or the Day-Ahead LBMP determined by SCUC for the Non-Competitive Proxy Generator Bus. At all other times, the Real-Time LBMP shall be calculated as specified in Section I.F.1 above.

3. Special Pricing Rules for Scheduled Lines

Real-Time LBMPs for the Proxy Generator Buses associated with designated Scheduled Lines shall be determined as follows:

When proposed Real-Time Market economic net Import Transactions into the NYCA associated with a designated Scheduled Line would exceed the Available Transfer Capability of the designated Scheduled Line, the Real-Time LBMP at the Proxy Generator Bus associated with the designated Scheduled Line will be the higher of (i) the RTC-determined price at that Proxy Generator Bus or (ii) the lower of the LBMP determined by RTD for that Proxy Generator Bus or zero.

When proposed Real-Time Market economic net Export Transactions from the NYCA associated with a designated Scheduled Line would exceed the Available Transfer Capability of the designated Scheduled Line, the Real-Time LBMP at the Proxy Generator Bus associated with the designated Scheduled Line will be the lower of (i) the RTC-determined price at the Proxy Generator Bus or (ii) the higher of the LBMP determined by RTD for the Proxy Generator Bus or the Day-Ahead LBMP determined by SCUC for the Proxy Generator Bus. At all other times, the Real-Time LBMP shall be calculated as specified in Section I.F.1 above.

The Cross-Sound Scheduled Line, the Neptune Scheduled Line, and the Linden VFT Scheduled Line are designated Scheduled Lines.

4. Method of Calculating Marginal Loss and Congestion Components of Real-Time LBMP at Non-Competitive Proxy Generator Buses and Proxy Generator Buses that are Subject to the Special Pricing Rule for Scheduled Lines

Under the conditions specified below, the Marginal Losses Component and the Congestion Component of the Real-Time LBMP, calculated pursuant to the preceding paragraphs in subsections 2 and 3, shall be constructed as follows:

When the Real-Time LBMP is set to zero and that zero price was not the result of using the RTD, RTC or SCUC-determined LBMP;;

Marginal Losses Component of the Real-Time LBMP = $\text{Losses}_{\text{RTC PROXY GENERATOR BUS}}$; and

Congestion Component of the Real-Time LBMP = - ($\text{Energy}_{\text{RTC REF BUS}}$ + $\text{Losses}_{\text{RTC PROXY GENERATOR BUS}}$).

When the Real-Time LBMP is set to the Day-Ahead LBMP:

Marginal Losses Component of the Real-Time LBMP = Losses $_{\text{RTC PROXY GENERATOR BUS}}$; and

Congestion Component of the Real-Time LBMP = Day-Ahead LBMP $_{\text{PROXY GENERATOR BUS}}$ - (Energy $_{\text{RTC REF BUS}}$ + Losses $_{\text{RTC PROXY GENERATOR BUS}}$).

where:

Energy $_{\text{RTC REF BUS}}$	=	~~m~~Marginal Bid cost of providing Energy at the reference Bus, as calculated by RTC_{15} for the hour;
Losses $_{\text{RTC PROXY GENERATOR BUS}}$	=	Marginal Losses Component of the LBMP as calculated by RTC_{15} at the Non-Competitive Proxy Generator Bus or Proxy Generator Bus associated with a designated Scheduled Line for the hour; and
Day-Ahead LBMP $_{\text{PROXY GENERATOR BUS}}$	=	Day-Ahead LBMP as calculated by SCUC for the Non-Competitive Proxy Generator Bus or Proxy Generator Bus associated with a designated Scheduled Line for the hour.

5. The Marginal Losses Component of LBMP at Proxy Generator Buses

The components of LBMP will be posted in the Day-Ahead and Real-Time Markets as described above in this Section I.F, except that the Marginal Losses Component of LBMP will be calculated differently for Internal locations. The Marginal Losses Component of the LBMP at each bus, as described

above, includes the difference between the marginal cost of losses at that bus and the Reference Bus. If this formulation were employed for an External bus, then the Marginal Losses Component would include the difference in the cost of Marginal Losses for a section of the transmission system External to the NYCA. Since the ISO will not charge for losses incurred Externally, the

formulation will exclude these loss effects. To exclude these External loss effects, the Marginal Losses Component will be calculated from points on the boundary of the NYCA to the Reference Bus.

The Marginal Losses Component of the LBMP at the External bus will be a weighted average of the Marginal Losses Components of the LBMPs at the Interconnection Points. To derive the Marginal Losses Component of the LBMP at an External location, a Transaction will be assumed to be scheduled from the External bus to the Reference Bus. The Shift Factors for this Transaction on the tie lines into these Interconnection buses, which measure the per-unit effect of flows over each of those tie lines that results from the hypothetical transaction, will provide the weights for this calculation. Since all the power from this assumed Transaction crosses the NYCA boundary, the sum of these weights is unity.

The sum of the products of these Shift Factors and the Marginal Losses Component of the LBMP at each of these Interconnection buses yields the Marginal Losses Component of the LBMP that will be used for the External bus. Therefore, the Marginal Losses Component of the LBMP at an External bus E is calculated using the equation:

$$\gamma_E^L = \sum_{b \in I} F_{Eb}(DF_b - 1)\lambda^R$$

where:

γ_E^L = Marginal Losses Component of the LBMP at an External bus *E*;

F_{Eb} = Shift Factor for the tie line going through bus *b*, computed for a hypothetical Bilateral Transaction from bus *E* to the Reference Bus;

~~$(DF_b - 1)\lambda^R$ = Marginal Losses Component of the LBMP at bus b; and~~

$(DF_b - 1)\lambda^R$ = Marginal Losses Component of the LBMP at bus b

Where:

DF_b = delivery factor for bus *b* to the system Reference Bus; and

λ^R = the system marginal price at the Reference Bus; and

I = The set of Interconnection buses between the NYCA and adjacent Control Areas.

II. ACCOUNTING FOR TRANSMISSION LOSSES

1.0 Charges

Subject to Attachment K to the ISO OATT, the ISO shall charge all Transmission Customers for transmission system losses based on the marginal cost of losses on either a bus or zonal basis, described below.

1.1 Loss Model

The ISO's RTD software will use a power flow model and penalty factors to estimate losses incurred in performing generation dispatch and billing functions for losses.

1.2 Residual Loss Payment

The ISO will determine the difference between the payments by Transmission Customers for losses and the payments to Suppliers for losses associated with all

Transactions (LBMP Market or Transmission Service under Parts II~~,~~ ~~III~~ and IV of the ISO OATT) for both the Day-Ahead and Real-Time Markets. The accounting for losses at the margin may result in the collection of more revenue than is required to compensate the Generators for the Energy they produced to supply the actual losses in the system. This over collection is termed residual loss payments. The ISO shall calculate residual loss payments revenue on an hourly basis and will credit them against the ISO's Residual Adjustment per Rate Schedule 1 Section 4.A of the ISO OATT.~~(See Rate Schedule 1 of the ISO OATT).~~

2.0 Computation of Residual Loss Payments

2.1 Marginal Losses Component LBMP

The ISO shall utilize the Marginal Losses Component of the LBMP on an Internal bus, an External bus~~,~~ or a zone basis for computing the marginal contribution of each Transaction to the system losses. The computation of these quantities is described in this Attachment B, Section I.~~.~~

2.1.1 Marginal Losses Component Day-Ahead

The ISO shall utilize the Marginal Losses Component computed by SCUC for computing the marginal contributions of each Transaction in the Day-Ahead Market.

2.1.2 Marginal Losses Component Real -Time

The ISO shall utilize the Marginal Losses Component calculated by the (i) RTD programs in most cases; or, (ii) during intervals when the conditions specified in Part I of this Attachment B exist at Proxy Generator Buses, the RTC program, for computing the Marginal Losses Component associated with each Transaction scheduled in the Real-Time Market (or deviations from Transactions scheduled in the Day-Ahead Market). The computations will be performed on an RTD-interval basis and aggregated to an hourly total.

2.2 Payments and Charges

Payments and charges to reflect the impact of Energy supplied by each Generator, consumed by each Load, or transmitted by each Transmission Customer on the Marginal Losses Component shall be determined as follows. Each of these payments or charges may be negative.

2.2.1 Day-Ahead Payments and Charges

As part of the LBMP paid to all Suppliers scheduled Day-Ahead to provide Energy to the LBMP Market, the ISO shall pay each such Supplier the product of: (a) the injection scheduled Day-Ahead from each of that Supplier's Generators in each hour, in MWh; and (b) the Marginal Losses Component of the Day-Ahead LBMP at each of those Generators' buses, in $/MWh.

As part of the LBMP charged to all LSEs scheduled Day-Ahead to purchase Energy from the LBMP Market, the ISO shall charge each such LSE the product of: (a) the withdrawal scheduled Day-Ahead in each Load Zone by that LSE in each hour, in MWh; and (b) the Marginal Losses Component of the Day-Ahead LBMP in that Load Zone, in $/MWh.

As part of the TUC charged to all Transmission Customers whose Transmission Service has been scheduled Day-Ahead, the ISO shall charge each such Transmission Customer the product of: (a) the amount of Energy scheduled Day-Ahead to be injected and withdrawn by that Transmission Customer in each hour, in MWh; and (b) the Marginal Losses Component of the Day-Ahead LBMP at the Point of Delivery (i.e., Load Zone in which Energy is scheduled to be withdrawn or the bus where Energy is scheduled to be withdrawn if the Energy is scheduled to be withdrawn at a location outside the NYCA), minus the Marginal Losses Component of the Day-Ahead LBMP at the Point of Receipt, in $/MWh.

2.2.2 Real-Time Payments and Charges

As part of the LBMP paid to all Suppliers providing Energy to the Real-Time LBMP Market, the ISO shall pay each such Supplier the product of: (a) the amount of Energy actually injected by each of that Supplier's Generators in each

hour (to the extent that actual injections do not exceed the AGC or RTD Base Points Signals sent to that Supplier for those Generators plus any Compensable Overgeneration payable pursuant to ISO Procedures), minus the amount of Energy each of those Generators was scheduled Day-Ahead to inject in that hour, in MWh; and (b) the loss component of the Real-Time LBMP at each of those Generator's buses, in $/MWh.

As part of the LBMP charged to all LSEs that purchase Energy from the LBMP Market, the ISO shall charge each such LSE the product of (a) the Actual Energy Withdrawals by that LSE in each Load Zone in each hour, minus the Energy withdrawal scheduled Day-Ahead in that Load Zone by that LSE for that hour, in MWh; and (b) the Marginal Losses Component of the Real-Time LBMP in that Load Zone, in $MWh.

As part of the TUC charged to all Transmission Customers whose Transmission Service was scheduled after the determination of the Day-Ahead schedule, or who schedule additional Transmission Service after the determination of the Day-Ahead schedule, the ISO shall charge each such Transmission Customer the product of: (a) actual Energy Withdrawals scheduled RTD in each hour, minus the amount of Energy scheduled Day-Ahead to be withdrawn by that Transmission Customer in that hour, in MWh; and (b) the Marginal Losses Component of the Real-Time LBMP at the Point of Delivery

(i.e., the Load Zone in which Energy is scheduled to be withdrawn or the External bus where Energy is scheduled to be withdrawn if Energy is scheduled to be withdrawn at a location outside the NYCA), minus the Marginal Losses Component of the Real-Time LBMP at the Point of Receipt, in $MWh.

As part of the LBMP paid to all Suppliers generating an amount of Energy that differs from the amount of Energy those Suppliers were scheduled by RTD to generate in an hour in association with Bilateral Transactions, the ISO shall pay each such Supplier the product of: (a) the amount of Energy actually injected by each of that Supplier's Generators in each hour (to the extent that actual injections do not exceed the AGC or RTD Base Points Signals sent to that Supplier for those Generators plus any Compensable Overgeneration payable pursuant to ISO Procedures) minus the amount of Energy each of those Generators was scheduled by RTD to inject in that hour in association with Bilateral Transactions, in MWh; and (b) the Marginal Losses Component of the Real-Time LBMP at each of those Generators' buses, in $/MWh.

As part of the LBMP charged to all LSEs consuming an amount of Energy that deviates from the amount of Energy those LSEs were scheduled by RTD to consume in an hour in association with Bilateral Transactions, the ISO shall charge each such LSE the product of: (a) the Actual Energy Withdrawals by that LSE in each Load Zone in each hour, minus the Energy withdrawal scheduled by RTD in

that Load Zone by that LSE for that hour in association with Bilateral Transactions, in MWh; and (b) the Marginal Losses Component of the Real-Time LBMP in that Load Zone, in $/MWh.

III. BILATERAL TRANSACTION BIDDING, SCHEDULING AND CURTAILMENT

1.0 Pre-Scheduled Transaction Requests

Pre-Scheduled Transaction Requests shall include the following information that shall be submitted to the ISO no earlier than eighteen (18) months prior to the Dispatch Day:

1) Point of Injection location;

2) Point of Withdrawal location;

3) Desired Dispatch Days;

4) Hourly MW schedules;

5) Other data as required by the ISO.

Pre-Scheduled Transaction Requests accepted for scheduling may be withdrawn only with the approval of the ISO, pursuant to ISO Procedures.

2.0 Requests for Bilateral Transaction Schedules

Transmission Customers scheduling Transmission Service or to support a Bilateral Transaction with Energy supplied by an External Generator or Internal Generator shall submit the following information to the ISO:

(1) Point of Injection location. For Transactions with Internal sources, the Point of Injection is the LBMP bus; for Transactions with Trading Hubs as their sources, the Point of Injection is the Trading Hub Generator bus; for Transactions with External sources, the Point of Injection is the Proxy Generator Bus; however, based upon such an advance notification to the ISO, an External Supplier will have the additional option of being modeled at a specific External LBMP bus (rather than an External Proxy Generator Bus) and being able to submit a bid curve. Otherwise, an External Supplier with Incremental or Decremental Bids at an External Proxy Generator Bus will be modeled as a single point price curve at that bus. An LBMP bus is a specific bus at

which a Generator Shift Factor has been calculated, and for which LBMP will be calculated.

(2) Point of Withdrawal location. For Internal Load, the Point of Withdrawal is the Load Zone in which the Load is situated or the bus at which that Load is interconnected to the Transmission System, if there is a revenue-quality real-time meter located at that bus (software constraints may initially limit the ability to specify buses as Points of Withdrawal); for delivery points outside the NYCA, the Point of Withdrawal is the Proxy Generator Bus; for Transactions with Trading Hubs as their sinks, the Point of Withdrawal is the Trading Hub Load bus;

(3) Hourly MW schedules;

(4) Minimum run times for Firm Point to Point Transmission Service, if any;

(5) Whether Firm or Non-Firm Transmission Service is requested,

(6) NERC Transaction Priorities for Bilateral Transactions involving External Generators, Exports, and Wheels Through;

(7) A Sink Price Cap Bid for Export transactions up to the MW level of the desired schedule, a Decremental Bid for Import and Wheels Through transactions up to the MW level of the desired schedule provided however that Sink Price Cap Bids and Decremental Bids shall be subject to the following limitations. Day-Ahead Bids for (a) Imports, and Wheels

Through at the Proxy Generator Bus designated as the source of the Transaction, shall be priced no lower than the Bid that provides the highest scheduling priority for sales to the LBMP Market plus the product of (i) the Scheduling Differential and (ii) three; and (b) Exports shall be priced no higher than the Bid that provides the highest scheduling priority for purchases from the LBMP Market minus the product of (i) the Scheduling Differential and (ii) three. Real-Time Bids submitted for evaluation in RTC_{15} for (a) Imports, and Wheels Through at the Proxy Generator Bus designated as the source of the Transaction, shall be priced no lower than the Bid that provides the highest scheduling priority for sales to the LBMP Market plus the product of (i) the Scheduling Differential and (ii) three; and (b) Exports shall be priced no higher than the Bid that provides the highest scheduling priority for purchases to the LBMP Market minus the product of (i) the Scheduling Differential and (ii) three;

(8) For an Internal Generator, whether the Generator is On-Dispatch or Off-Dispatch;

(9) The amount and location of any Ancillary Services the Transmission Customer will Self-Supply in accordance with and to the extent permitted by each of the Rate Schedules under the ISO OATT; and

(10) Other data required by the ISO.

3.0 Pre-Scheduled Transaction Requests and Bilateral Transaction Scheduling

3.1 ISO's General Responsibilities

Pre-Scheduled Transaction Requests shall be submitted, pursuant to ISO Procedures, no earlier than eighteen (18) months prior to the Dispatch Day, and shall include hourly transaction quantities (in MW) at each affected by External Interface for each specified Dispatch Day. Customers may submit Pre-Scheduled Transaction Requests for scheduling in the Day-Ahead Market.

The ISO shall determine, pursuant to ISO Procedures, the amount of Total Transfer Capability at each External Interface to be made available for scheduling. The ISO shall evaluate Pre-Scheduled Transaction Requests submitted in the order in which they are

submitted for evaluation until the Pre-Scheduled Transaction Request expires, pursuant to ISO Procedures, prior to the close of the Day-Ahead Market for the specified Dispatch Day. Modification of a Pre-Scheduled Transaction request shall constitute a withdrawal of the original request and a submission of a new Pre-Scheduled Transaction Request. At the request of a Customer, the ISO shall continue to evaluate a Pre-Scheduled Transaction Request that was not accepted for scheduling in the priority order in which the Request was originally submitted until it is either accepted for scheduling, is withdrawn or expires, pursuant to ISO Procedures, prior to the close of the Day-Ahead Market for the Specified Dispatch Day. The ISO shall accept Pre-Scheduled Transaction Requests for scheduling, pursuant to ISO Procedures, provided that there is Ramp Capacity, and Transfer Capability available at each affected External Interface, in the NYCA for each hour requested.

If Ramp Capacity or Transfer Capability, on the designated External Interface, is unavailable in the NYCA for any hour of the Pre-Scheduled Transaction Request, the request shall not be scheduled. The ISO shall confirm the Transaction with affected Control Areas, as necessary, pursuant to ISO Procedures and may condition acceptance for scheduling on such confirmation.

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

The ISO shall reserve Ramp Capacity, and Transfer Capability on affected Interfaces, for each Pre-Scheduled Transaction. Pre-Scheduled Transactions shall be automatically submitted for scheduling in the appropriate LBMP Market for the designated Dispatch

Day. The ISO shall evaluate requests to withdraw Pre-Scheduled Transactions pursuant to ISO Procedures.

Pre-Scheduled Transactions for Wheels Through in the Day-Ahead Market shall be assigned a Decremental Bid at the Proxy Generator Bus designated as the source of the Transaction that provides the highest scheduling priority available for Firm Transmission Service. The ISO shall evaluate requests for Transmission Service submitted in the Day-Ahead scheduling process using SCUC, and will subsequently establish a Day-Ahead schedule. During the Dispatch Day, the ISO shall use RTC_{15} to establish schedules for each hour of dispatch in that day.

The ISO shall use the information provided by RTC when making Curtailment decisions pursuant to the Curtailment rules described in this Attachment B.

3.2 Use of Decremental Bids to Dispatch Internal Generators

When dispatching Generators taking service under the ISO OATT to match changing conditions, the ISO shall treat Decremental Bids and Incremental Energy Bids simultaneously and identically as follows: (i) a generating facility selling Energy in the

LBMP Market may be dispatched downward if the LBMP at the Point of Receipt falls below the generating facility's Incremental Energy Bid; (ii) a Generator serving a Transaction scheduled under the ISO OATT may be dispatched downward if the LBMP at the Generator's Point of Receipt falls below the Decremental Bid for the Generator; (iii) a Supplier's Generator may be dispatched upward if the LBMP at the Generator's Point of

Receipt rises above the Decremental or Incremental Energy Bid for the Generator regardless of whether the Generator is supplying Energy to the LBMP Market or supporting a Transaction scheduled under the ISO OATT.

3.3 Scheduling of Bilateral Transactions

Transmission Service for Bilateral Transactions shall be scheduled as follows:

(i) The ISO shall, following evaluation of the Bids submitted, schedule Transmission Service to support Transactions for the hours in which those Transactions may be accommodated.

(ii) The ISO shall treat all Internal Generators as dispatchable and all External Generators as non-dispatchable.

(iii) The ISO will use SCUC and RTD to determine schedules for Internal Generators and schedules for DNI with other Control Areas so that Firm Transmission Service will be provided to any Bilateral Transaction Customer requesting Firm Transmission Service to the extent that is physically feasible.

(iv) The ISO shall not schedule Non-Firm Transmission Service Day-Ahead for a Transaction if Congestion Rents associated with that Transaction are positive, nor will the ISO schedule Non-Firm Transmission Service in the RTC if Congestion Rents associated with that Transaction are expected to be positive. All schedules for Non-Firm Point-to-Point Transmission Service are advisory only and are subject to Reduction if real-time Congestion Rents associated with those Transactions become positive. Transmission Customers receiving Non-Firm Transmission Service will be required to pay Congestion Rents during any delay in the implementation of Reduction (e.g., during the nominal five-minute RTD intervals that elapse before the implementation of Reduction).

3.4 Day-Ahead Bilateral Transaction Schedules

The ISO shall compute all NYCA Interface Transfer Capabilities prior to

scheduling Transmission Service Day-Ahead. The ISO shall run the SCUC utilizing the computed Transfer Capabilities, submitted Firm Point-to-Point Transmission Service and Network Integration Transmission Service schedules, Load forecasts, and submitted Incremental Energy Bids, Decremental Bids and Sink Price Cap Bids.

In the Day-Ahead schedule, the ISO shall use the SCUC to determine Generator schedules, Transmission Service schedules and DNIs with adjacent Control Areas. The ISO shall not use Decremental Bids submitted by Transmission Customers for Generators associated with Non-Firm Point-to-Point Transmission Service in the determination of the Day-Ahead schedule.

3.5 Reduction and Curtailment

If a Transmission Customer's Firm Point-to-Point Transmission Service or Network Integration Transmission Service is supporting an Internal Bilateral Transaction, or an Import, the ISO shall not reduce the Transmission Service.

If the Transaction was scheduled in the Day-Ahead Market, and the Day-Ahead Schedule for the Generator designated as the Supplier of Energy for that Bilateral Transaction called for that Generator to produce less Energy than was scheduled Day-Ahead to be consumed in association with that Transaction, the ISO shall supply the Load or Transmission Customer in an Export with Energy from the Day-Ahead LBMP Market.

The Transmission Customer shall continue to pay the Day-Ahead TUC and, in addition, if it takes service under this Tariff, the Supplier of Energy for the Bilateral Transaction shall pay the Day-Ahead LBMP price, at the Point of Receipt for the Transaction, for the replacement amount of Energy (in MWh) purchased in the LBMP Market. If the Supplier of Energy for the Bilateral Transaction does not take service under this Tariff, it shall pay the greater of 150 percent of the Day-Ahead LBMP at the Point of Receipt for the Transaction or $ 100/MWh for the replacement amount of energy, as specified in the OATT. These procedures shall apply regardless of whether the Generator designated to supply Energy in association with the Transaction was located inside or outside the NYCA.

If the Transaction was scheduled following the Day-Ahead Market, or the schedule for the Transaction was revised following the Day-Ahead Market, then the ISO shall supply the Load or Transmission Customer in an Export with Energy from the Real-Time LBMP Market, at the Real-Time LBMP, if necessary, if (1) the Generator designated to supply the Transaction is an Internal Generator, and it has been dispatched to produce less than the amount of Energy that is scheduled hour-ahead to be consumed in association with that Transaction; or (2) the Generator designated to supply the Transaction is an External Generator, and the amount of Energy it has been scheduled an hour ahead to produce

(modified for within-hour changes in DNI, if any) is less than the amount of Energy scheduled hour-ahead to be consumed in association with that Transaction; then the Transmission Customer shall pay the Real-Time TUC for the amount of Energy withdrawn in real time in association with that Transaction minus the amount of Energy scheduled Day-Ahead to be withdrawn in association with that Transaction. In addition, to the extent that it has not purchased sufficient replacement Energy in the Day-Ahead Market, the Supplier of Energy for the Bilateral Transaction, if it takes service under this Tariff, shall pay the Real-Time LBMP price, at the Point of Injection for the Transaction, for any additional replacement Energy (in MWh) necessary to serve the Load. If the Supplier of Energy for the Bilateral Transaction does not take service under this Tariff, it shall pay the greater of 150 percent of the Real-Time LBMP at the Point of Injection for the Transaction or $100/MWh for the replacement amount of Energy, as specified in the OATT. These procedures shall apply regardless of whether the Generator designated to supply Energy in association with that Transaction was located inside or outside the NYCA. Notwithstanding the foregoing, the amount of Transmission Service scheduled hour-ahead in the RTC for Transactions supplied by one of the following Generators shall retroactively be set equal to that Generator's actual output in each RTD interval:

(i) Generators providing Energy under contracts executed and effective on or before November 18, 1999 (including PURPA contracts) in which the power purchaser does not control the operation of the supply source but would be responsible for penalties for being off-schedule;

(ii) Existing topping turbine Generators and extraction turbine Generators producing electric Energy resulting from the supply of steam to the district steam system located in New York City (LBMP Zone J) in operation on or before November 18, 1999 and/or topping or extraction turbine Generators utilized in replacing or repowering existing steam supplies from such units (in accordance with good engineering and economic design) that cannot follow schedules, up to a maximum total of 499 MW of such units; and

(iii) Existing intermittent (i.e., non-schedulable) renewable resource Generators in operation on or before November 18, 1999 within the NYCA, plus up to an additional 1000 MW of such Generators.

This procedure shall not apply for those hours the Generator supplying that Transaction has bid in a manner that indicates it is available to provide Regulation Service or Operating Reserves.

If the Energy injections scheduled by RTC_{15} at a Proxy Generator Bus are Curtailed at the request of the ISO then the Supplier or Transmission Customer whose transaction is Curtailed, in addition to paying the charge for replacement Energy necessary to serve the Load and the charge to balance the TUC, as appropriate, shall be paid the product (if positive) of: (a) the Real-Time LBMP at the Proxy Generator Bus minus the higher of the Real-Time Bid price and zero; and (b) the scheduled Energy injection minus the actual Energy injections at that Proxy Generator Bus for the dispatch hour.

If the Transmission Customer was receiving Non-Firm Point-to-Point Transmission Service, and its Transmission Service was Reduced or Curtailed, the replacement Energy may be purchased in the Real-Time LBMP Market, at the Real-Time LBMP, by the Internal Load. An Internal Generator supplying Energy for such a Transmission Service that is Reduced or Curtailed may sell its excess Energy in the Real-Time LBMP Market.

The ISO shall not automatically reinstate Non-Firm Point-to-Point Transmission Service that was Reduced or Curtailed. Transmission Customers may submit new schedules to restore the Non-Firm Point-to-Point Transmission Service in the next RTC_{15} execution.

If a security violation occurs or is anticipated to occur, the ISO shall attempt to relieve the violation using the following procedures:

(i) Reduce Non-Firm Point-to-Point Transmission Service: Partially or fully physically Curtail External Non-Firm Transmission Service (Imports, Exports and Wheels-Through) by changing DNI schedules to (1) Curtail those in the lowest NERC priority categories first; (2) Curtail within each NERC priority category based on Incremental Energy Bids, Decremental Bids, or Sink Price Cap Bids; and (3) prorate Curtailment of equal cost transactions within a priority category.

(ii) Curtail Non-Firm Point-to-Point Transmission Service: Curtail (through

changing DNI) unscheduled Non-Firm Transactions which contribute to the violation, starting with the lowest NERC priority category.

(iii) Dispatch Internal Generators, based on Incremental Energy Bids and Decremental Bids, including committing additional resources, if necessary;

(iv) Adjust the DNI associated with Transactions supplied by External resources: Curtail External Firm Transactions until the Constraint is relieved by (1) Curtailing based on Incremental Energy Bids, Decremental Bids or Sink Price Cap Bids, and (2) except for External Transactions with minimum run times, prorating Curtailment of equal cost transactions;

(v) Request Internal Generators to voluntarily operate in manual mode below minimum or above maximum dispatchable levels. When operating in manual mode, Generators will not be required to adhere to the one percent minimum ramp rate set forth in Article 4 of the ISO Services Tariff, nor will they be required to respond to RTD Base Point Signals;

(vi) In overgeneration conditions, decommit Internal Generators based on Minimum Generation Bid rate in descending order; and

(vii) Invoke other emergency procedures including involuntary Load Curtailment, if necessary.

3.6 Scheduling Transmission Service for External Transactions

The amount of Firm Transmission Service scheduled Day-Ahead for Bilateral Transactions which designate External Generators to supply Imports or Internal Generators to supply Exports will be equal to the amount of Energy scheduled to be consumed under those Transactions Day-Ahead. The amount of Firm Transmission Service scheduled in the RTC_{15} for Bilateral Transactions which designate External Generators to supply Imports or Internal Generators to supply Exports will be equal to the amount of Energy scheduled to be consumed under those Transactions in RTC_{15}. The DNI between the NYCA and adjoining Control Areas will be adjusted as necessary to reflect the effects of any Curtailments of Import or Export Transactions. Additionally, any Curtailment or Reductions of schedules for Export Transactions will cause the scheduled amount of Transmission Service to change.

To the extent possible, Curtailments of External Transactions at the Proxy Generator Bus associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, and the Linden VFT Scheduled Line shall be based on the transmission priority of the associated Advance Reservation for use of the Cross-Sound Scheduled Line, the Neptune Scheduled Line, or the Linden VFT Scheduled Line (as appropriate).

The ISO shall use Decremental Bids supplied by Transmission Customers using External Generators to supply Wheels-Through to determine the amount of Energy those Generators are scheduled Day-Ahead to produce in each hour. This in turn will determine the Firm Transmission Service scheduled Day-Ahead to support those

Transactions. The ISO shall also use Decremental Bids supplied by Transmission Customers using External Generators to supply Wheels-Through to determine the amount of Energy these Generators are scheduled to produce in RTC_{15}, which, in turn, will determine the Transmission Service scheduled in RTC_{15} to support those Transactions.

The ISO will not schedule a Bilateral Transaction which crosses an Interface between the NYCA and a neighboring Control Area if doing so would cause the DNI to exceed the Transfer Capability of that Interface.

The ISO shall not permit Market Participants to schedule External Transactions over the following eight scheduling paths:

1. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Bus that represents its Interface with the Control Area operated by the Independent Electricity System Operator of Ontario ("IESO"), and to sink in the Control Area operated by PJM Interconnection, LLC ("PJM");
2. External Transactions that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by IESO;
3. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by IESO;
4. External Transactions that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by PJM;
5. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to sink in the Control Area operated by the Midwest Independent Transmission System Operator, Inc. ("MISO");
6. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Buses that represent the NYCA's common border with the Control Area operated by PJM, and to source from the Control Area operated by the MISO;
7. Wheels Through the NYCA that are scheduled to enter the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to sink in the Control Area operated by the MISO; and
8. Wheels Through the NYCA that are scheduled to exit the NYCA at the Proxy Generator Bus that represents the NYCA's Interface with the Control Area operated by IESO, and to source from the Control Area operated by the MISO.

External Transactions at the Proxy Generator Buses that are associated with the Cross-Sound Scheduled Line, the Neptune Scheduled Line, and the Linden VFT Scheduled Line shall also be governed by Attachment N to the ISO Services Tariff.

IV. SALE AND AWARD OF TRANSMISSION CONGESTION CONTRACTS ("TCCs")

1.0 Overview of the Sales of TCCs

TCCs will be made available through both (i) the Centralized TCC Auction ("Auction") and Reconfiguration Auction, which will be conducted by the ISO; (ii) Direct Sales by the Transmission Owners, which will be non-discriminatory, auditable sales conducted solely on the OASIS in compliance with the applicable requirements and restrictions set forth in Order No. 889 et seq.; (iii) the conversion of transmission capacity associated with certain Existing Transmission Agreements ("ETAs") pursuant to Section 2A of Part IV of this Attachment B; and (iv) the award of Incremental TCCs pursuant to Section 2C of Part IV of this Attachment B.

Before each Auction, the ISO shall ensure that all of the following correspond to a simultaneously feasible security constrained Power Flow: (i) existing TCCs that are valid for any portion of the duration of any TCCs to be sold in the Auction, including TCCs that were created pursuant to Sections 2A and 2C of Part IV of this Attachment B (ii) Grandfathered Rights;- (iii) Original Residual TCCs; and (iv) ETCNL, not previously sold as TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction. Should infeasibility occur, the TCC Reservations shown in Table 1 of Attachment M of the ISO OATT will be reduced until feasibility is assured, as described in Section 3.0 of this Part IV of this Attachment B.

Before each Centralized TCC Auction, the ISO shall also: (i) convert ETCNL into ETCNL TCCs pursuant to Section 5.0 of this Part IV of this Attachment B, (including the Capacity Reservation Cap provision of Section 5.3), and (ii) allocate RCRRs to Transmission Owners and convert RCRRs into RCRR TCCs pursuant to Section 6.0 of this Part IV of this Attachment B.

Prior to the first Centralized TCC Auction, the NYISO distributed to Transmission Owners Original Residual TCCs, the NYISO designated certain transmission capacity as ETCNL, and some Transmission Owners converted their Grandfathered Rights into Grandfathered TCCs. Transmission Owners with ETCNL will release that transmission capacity for sale in each Centralized TCC Auction, unless the Transmission Owner has converted the ETCNL into ETCNL TCCs pursuant to Section 5.0 of this Part IV of this Attachment B. Transmission Owners will be required to either sell their Original Residual TCCs through a Direct Sale on the OASIS prior to each Centralized TCC Auction, or to sell them through each Centralized TCC Auction. Each Transmission Owner may retain its Grandfathered TCCs. If it sells Grandfathered TCCs, a Transmission Owner shall do so either through Direct Sales or through Centralized TCC Auctions or Reconfiguration Auctions.

When selling TCCs, Transmission Owners are considered Primary Owners of those TCCs. Purchasers of TCCs, other than in a secondary market, are considered Primary Holders of those TCCs if they meet certain criterion outlined in Sections 7.0 and 9.4 of this Part IV of this Attachment B.

2.0 General Description of the Auction Process

Until the ISO develops the Auction software necessary to perform an End-State Auction, the ISO shall

conduct Initial Auctions, in which TCCs will be available. The proportion of system transmission capacity that will be set aside to support TCCs of varying durations will be determined before -each Initial Auction is conducted.

Upon the completion of more sophisticated Auction software, the ISO will perform an End-State Auction, which will permit the Bids submitted by Auction participants to determine the lengths of the TCCs sold in the Auction. Each of these types of Auctions is described in additional detail later in this Attachment. All bidders in the Auction must meet certain criteria outlined in Section 9.0 of this Part IV of this Attachment B, and if they are awarded TCCs they will be considered Primary Holders of those TCCs.

Each Initial Auction will consist of one or more sub-auctions. These sub-auctions and the End-State Auction will normally be conducted in two stages, described later in this Attachment B. The transmission apacity that has been offered for sale in Stage 1 will be auctioned in not less than four (4) rounds, unless the Transmission Owners unanimously consent to fewer rounds. A portion of that transmission capacity offered for sale in Stage 1 will be auctioned in each of its rounds.

In Stage 1, the transmission capacity available for sale as TCCs in the Auction will include (i) the transmission capacity associated with Original Residual TCCs allocated to the Transmission Owners, but not (a) sold through a Direct Sale, (b) sold as existing TCCs that are valid for any part of the duration

of any TCCs sold in the Centralized TCC Auction, (c) converted into RCRR TCCs, or (d) converted to existing and valid Fixed Price TCCs before the current or immediately preceding Centralized TCC Auction pursuant to Section 2A of Part IV of this Attachment B; (ii) the transmission capacity associated with ETCNL initially allocated to the Transmission Owners, but not (a) sold through a Direct Sale, (b) sold as existing TCCs that are valid for any part of the duration of any TCCs sold in the Centralized TCC Auction, (c) converted into ETCNL TCCs, or (d) converted to valid and existing Fixed Price TCCs at any time before the current Centralized TCC Auction pursuant to Section 2A of Part IV of this Attachment B; (iii) Residual Transmission Capacity not (a) converted to RCRR TCCs, (b) sold as existing TCCs that are valid for any part of the duration of any TCCs sold in the Centralized TCC Auction, or (c) converted to valid and existing Fixed Price TCCs at any time before the current Centralized TCC Auction pursuant to Section 2A of Part IV of this Attachment B; and (iv) any TCCs offered for sale by a Primary Holder.

In Stage 2, holders of TCCs may indicate whether they wish to sell those TCCs into a given round before that round begins. All of the TCCs that have been offered for sale in each round of Stage 2 will be auctioned in that round. Each Primary Owner, purchaser of a

TCC in a previous round of the Auction, or purchaser of a TCC in a Direct Sale (if it meets the ISO's creditworthiness standards) may offer its TCCs for sale in any round of Stage 2. No one will be required to offer TCCs for sale in Stage 2.

The ISO will run a security constrained Power Flow to determine the simultaneous feasibility of TCCs to be awarded in a round of an Auction. The Power Flow model will treat Grandfathered Rights and TCCs identified in Section 9.7 of this Part IV of this Attachment B, as fixed injections and withdrawals corresponding to the Point of Injection and Point of Withdrawal for each of those Grandfathered Rights or TCCs.

As each ETA in effect on November 19, 1999 that was listed in Table 1A of Attachment L to the ISO OATT (as it may be amended), and that conferred transmission rights on an LSE, expires or terminates, the transmission capacity associated with it may be used to create Fixed Price TCCs, pursuant to Section 2A of Part IV of this Attachment B. When any other ETA terminates, the Grandfathered Rights or Grandfathered TCCs associated with it shall be converted into Residual Transmission Capacity. The revenues associated with the sale or conversion of TCCs created from capacity associated with expired or terminated ETAs shall be allocated among the Transmission Owners as described in Part V of this Attachment B.

In the Auction, bidders will place Bids specifying the maximum amount they are willing to pay for the TCCs they wish to purchase. The objective of the Auction will be to maximize the value of the TCCs awarded to the bidders, as valued by their Bids,

subject to the Constraint that the set of all outstanding TCCs and Grandfathered Rights identified in Section 9.7 of this Part IV of this Attachment B must correspond to a simultaneously feasible security-constrained Power Flow in each time period.

The Auction will determine prices for feasible TCCs.

The ISO will conduct Reconfiguration Auctions on a monthly basis. Primary Holders of TCCs that are valid for the next month will be permitted to offer those TCCs for sale in the Reconfiguration Auction (as described in Section 8.5 of this Part IV of this Attachment B). Winning bidders in a Reconfiguration Auction will be awarded TCCs that will be valid for the next month.

2A. Converting Transmission Capacity Associated with Expired, Terminated, or Expiring ETAs Into Fixed Price TCCs

The ISO shall follow the procedures set forth in this Section 2A prior to the implementation of the End-State Auction process. For purposes of this Section 2A, references to "expired" ETAs shall include ETAs that have been terminated. When determining the Points of Injection, Points of Withdrawal, and MW quantities associated with ETAs listed in Table 1A in effect on November 19, 1999, the ISO shall look to Attachment L of the OATT (as it may be amended) at the time of the conversion.

2A.1 Conversion Rules

Any LSE that had transmission rights under an ETA in effect on November 19, 1999 that was listed in Table 1A of Attachment L to the OATT (as it may be amended), but has since expired, shall have a right to obtain Fixed Price TCCs with the same Point of Injection and Point of Withdrawal associated with that ETA.

Any LSE that currently has transmission rights under an ETA in effect on November 19, 1999 that was listed on Table 1A of Attachment L of the OATT (as it may be amended) but has not yet expired, shall likewise have a right to obtain Fixed Price TCCs and with the same Point of Injection and Point of Withdrawal as that ETA after its expiration.

LSEs that are eligible to obtain Fixed Price TCCs shall be able to obtain them for a total duration of up to ten years, except as provided in the following paragraph. The ISO shall offer eligible LSEs Fixed Price TCCs with the same Points of Injection and Points of Withdrawal as shown on Table 1A of Attachment L, as it may be amended, associated with their expired or expiring ETAs and a duration of five or ten years (at the LSE's option) at a price to be determined in accordance with Section 2A.2 below. Prior to the expiration of Fixed Price TCCs with a duration of five years that are created pursuant to the preceding sentence, the ISO shall offer those LSEs that hold such Fixed Price TCCs an option to obtain new Fixed Price TCCs with the same Points of Injection and Points of Withdrawal for one additional five-year term, effective upon the expiration of the original Fixed Price TCCs' five year term, at a new price calculated in accordance with Section 2A.2 below.

LSEs that certify to the ISO that they purchase Energy from the New York Power Authority ("NYPA") under agreements that will expire in 2025 and that have ETAs listed on

Table 1A to Attachment L, as it may be amended, that will expire in 2013, which they will use to hedge the congestion costs associated with deliveries under their NYPA agreements, shall have the right to obtain Fixed Price TCCs with the same Points of Injection and Points of Withdrawal as shown on Table 1A of Attachment L to the OATT, as it may be amended, associated with the expiring ETA for a total duration of twelve years. The ISO shall offer Fixed Price TCCs with a duration of five years to LSEs that make the required certification (provided for in this paragraph) at a price to be determined in accordance with Section 2A.2 below. Prior to, but effective upon, the expiration of those Fixed Price TCCs, the ISO shall offer the LSE an option to obtain new Fixed Price TCCs with the same Points of Injection and Points of Withdrawal for one additional seven-year term, effective upon the expiration of the original Fixed Price TCCs, at a new price calculated in accordance with Section 2A.2 below.

To exercise this conversion right, an LSE must notify the ISO, and the Transmission Owner that was (or is) a party to the ETA, in writing, of its decision to obtain Fixed Price TCCs under this provision. That notice must also specify the ETA's expiration or termination date. The LSE must provide this notice prior to a deadline to be established by the ISO. In the case of an ETA that has already expired or been terminated as of the effective date of this Section 2A, or that will expire or be terminated prior to the end of the Winter 2008 Capability Period, the ISO shall set the deadline on a date prior to the beginning of the Autumn 2008 Centralized TCC Auction. In the case of an ETA that will expire or terminate after the end of the 2008 Winter Capability Period, the ISO shall set the deadline on a date prior to the beginning of the Centralized TCC Auction for the Capability Period in which the ETA expires or terminates. The specific deadlines shall be set forth in the ISO Procedures.

When an LSE elects to convert an ETA that: (i) has expired; (ii) is scheduled to expire, prior to November 1, 2008; or (iii) is scheduled to expire later but that is terminated before November 1, 2008, the term of the Fixed Price TCCs that LSE obtains shall begin on November 1, 2008. When an LSE elects to convert any other ETA it may choose to have the term of the Fixed Price TCCs that it obtains begin either on the day after the ETA's expiration or termination, or at the start of the Capability Period following its expiration or termination. If the LSE chooses the latter option, the ISO shall make the transmission capacity associated with the expired

ETA available to support the sale of TCCs with a duration of one month in any Reconfiguration Auction(s) held between the ETA's expiration and the start of the next Capability Period. Nothing in this Section 2A shall be construed as authorizing the early termination of ETAs before their scheduled expiration dates or as excusing the parties to ETAs of their obligations thereunder.

An LSE that exercises its conversion rights under this Section 2A may elect to receive a number of Fixed Price TCCs up to one hundred percent of the MW quantity specified for the ETA in Table 1A of Attachment L, as it may be amended. In the case of ETAs for which more than one MW quantity is listed in Attachment L, the LSE may elect to receive the higher quantity.

The LSE must submit a written certification to the ISO stating that it expects to: (i) be legally obligated to serve the Load that it historically served under the ETA (or a portion of that Load at least equal to the number of Fixed Price TCCs that it plans to obtain under this Section 2A); and (ii) need the transmission capacity between the Point of Injection and Point of Withdrawal specified in the ETA to serve that Load. The LSE will not be allowed to obtain Fixed Price TCCs under this Section to the extent that it cannot satisfy either or both of these requirements. That is, the LSE's conversion rights may be wholly or partially terminated to the extent that it anticipates losing all or part of the historic Load, or no longer needing all or part of the transmission capacity associated with the expired ETA to serve it. Additional information regarding the ISO's certification process shall be set forth in the ISO Procedures.

In addition, if the ISO concludes that an LSE's requested conversion would make existing and valid TCCs infeasible, it will reduce the number of Fixed Price TCCs that the LSE may obtain to the

extent necessary to avoid the infeasibility. The reduction procedure will use the same optimization model as the Centralized TCC Auctions, except that the expired or expiring transmission rights subject to conversion will not be represented as fixed injections and withdrawals but will be represented by a bid curve. Additional details shall be specified in the ISO Procedures.

2.A.1.a Special Rules Applicable to LSEs That Were Eligible to Obtain Fixed Price TCCs with a Duration Commencing on November 1, 2008

LSEs that obtained Fixed Price TCCs with a duration of five years commencing on November 1, 2008 shall have a one-time opportunity to elect to replace those Fixed Price TCCs, at no additional cost, with Fixed Price TCCs with a duration of ten years. The ten year duration shall be deemed to have commenced on November 1, 2008. LSEs that elect to replace Fixed Price TCCs under this paragraph shall not be eligible to obtain additional Fixed Price TCCs for an additional five year term at the time that their replacement Fixed Price TCCs expire.

LSEs that were eligible to obtain Fixed Price TCCs with a duration of five years commencing on November 1, 2008, but that opted not to obtain them, shall have a one-time opportunity to obtain Fixed Price TCCs with a duration of ten years. If an LSE makes this election the duration of the Fixed Price TCCs that it obtains will commence at the beginning of a subsequent Capability Period, as specified in the ISO Procedures. An LSE that elects to obtain Fixed Price TCCs under this paragraph shall pay the same price that the ISO originally offered

for the same Fixed Price TCCs with a duration of five years, *i.e.*, the price that the ISO calculated under Section 2A.2 for Fixed Price TCCs commencing on November 1, 2008 (including the original historic inflation adjustment) for the LSE in advance of the Autumn 2008 Centralized TCC Auction.

All elections under this Section 2A.1.a shall be made during an election period specified in the ISO Procedures and shall be subject to all of the notification, certification, feasibility and other requirements established under Section 2A and the ISO Procedures.

2A.2 Calculating Prices for Fixed Price TCCs

Except as is specifically noted below, if an LSE chooses to obtain Fixed Price TCCs pursuant to this Section 2A it shall pay a base price per MW/year equal to the average of:

(i) the average of the inflation-adjusted market-clearing prices calculated for TCCs with a duration of one year and the same POI and POW in the Stage 1 rounds of each of the four previous Centralized TCC Auctions. The average adjusted market-clearing price will be determined by first calculating the average market clearing price in the Stage 1 rounds for each Centralized TCC Auction. The average market-clearing price for the first, second, and third of the four previous Centralized TCC Auctions will then be adjusted for inflation between: (A) the date that TCCs sold in them went into effect, and (B) the start of the Capability Period during which the TCCs sold in the fourth Centralized TCC Auction went into effect; and

(ii) the inflation-adjusted average annual difference between the Day-Ahead Market Congestion Component at the POW and the POI associated with the TCCs, summed over the

hours of the four most recently concluded Capability Periods. The inflation-adjusted average annual difference for a given Fixed Price TCC would be calculated by summing the Day-Ahead Market Congestion Component for the POW associated with that Fixed Price TCC minus the Day-Ahead Market Congestion Component for the POI associated with that Fixed Price TCC over the hours of each month of the four most recently concluded Capability Periods; adjusting each monthly total for inflation between the end of the month in question and the start of the most recently concluded Capability Period; summing those inflation-adjusted monthly totals over those four Capability Periods; and dividing by two.

If, however, an LSE chooses to obtain a Fixed Price TCC with a POW at or inside of Load Zone K (Long Island) pursuant to this Section 2A, it shall pay a base price per MW/year equal to the inflation-adjusted average annual difference between the Day-Ahead Market Congestion Component at the POW and the POI associated with the TCCs, summed over the hours of the four most recently concluded Capability Periods. The inflation-adjusted average annual difference for a given Fixed Price TCC would be calculated by summing the Day-Ahead Market Congestion Component for the POW associated with that Fixed Price TCC over the hours of each month of the four most recently concluded Capability Periods, adjusting each monthly total for inflation, between the end of the month in question and the start of the most recently concluded Capability Period; summing those inflation-adjusted monthly totals over those four Capability Periods; and dividing by two.

All inflation calculations referenced in this Section 2A.2 shall be made using the applicable inflation rates specified in the Personal Consumption Expenditures Implicit Price Deflator published by the Bureau of Economic Analysis of the United States Department of Commerce. A Fixed Price TCC shall not have a price of less than zero. To the extent that the formula in this Section 2A.2 produces a price for a Fixed Price TCC of less than zero, the price shall be zero.

2A.3 Miscellaneous

The ISO shall post the following information promptly after transmission capacity associated with expired or terminated ETAs is converted into Fixed Price TCCs: (i) the quantity of TCCs converted (in MW); (ii) the Point of Injection and Point of Withdrawal for each Fixed Price TCC converted; and (iii) the price paid for each Fixed Price TCC.

An LSE that obtains Fixed Price TCCs pursuant to this Section 2A shall be required to pay the ISO the total amount specified in this Section 2A in equal annual payments for each year of the Fixed Price TCC's duration. An LSE that has made the required annual payments may reassign, reconfigure, or sell its Fixed Price TCCs for any period of time for which it had made the required annual payment. Each annual payment shall entitle the LSE to extend the term of the Fixed Price TCC for an additional year, subject to Section 2A.1, above. The ISO shall allocate funds collected pursuant to this provision under the terms of Attachment N to this Tariff. An LSE that fails to make any required annual payment for its Fixed Price TCCs shall permanently surrender those Fixed Price TCCs for that year and for all subsequent years (and shall not have a right to renew for an additional five or seven year term), provided however that the ISO shall provide a one week cure period to an LSE that has failed to make the

required annual payment for its Fixed Price TCCs before the LSE has its Fixed Priced TCCs permanently surrendered, pursuant to ISO Procedures.

If an LSE acquires Load from another LSE that holds Fixed Price TCCs, it may request that the Fixed Price TCCs be reassigned to follow the transferred Load. In such case, the quantity of the Fixed Price TCCs that transfers to the assignee shall be equal to: (i) the amount of transferred Load divided by total Load associated with those Fixed Price TCCs, (ii) multiplied by the quantity of the Fixed Price TCCs held by the LSE losing Load between the same Point of Injection and Point of Withdrawal; provided however, that no Fixed Price TCC will transfer under this paragraph if the calculation above indicates that less than one Fixed Price TCC will transfer. If at least one Fixed Price TCC would transfer pursuant to this paragraph, the quantity of reassigned Fixed Price TCCs shall be rounded to the nearest whole number of Fixed Price TCCs. An LSE that is reassigned Fixed Price TCCs under this paragraph shall hold such Fixed Price TCCs for the remainder of their term, and have rights of renewal as provided in this Section 2A, provided it makes all required payments.

To the extent that Fixed Price TCCs are created pursuant to this Section 2A, the transmission capacity that supports them shall not be available for sale in the Centralized TCC Auctions until those Fixed Price TCCs expire.

All rights and obligations that apply to an LSE in connection with obtaining and holding Fixed Price TCCs as provided for in this Section 2A shall also be applicable to an ETA Agent, except as the context otherwise requires (for example, an ETA Agent cannot obtain Fixed Price TCCs on its own behalf).

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2B. Preservation of Tax-Exempt Financing

Notwithstanding any other provision of Section 2A of Part IV of this Attachment B, neither the ISO nor the Transmission Owners shall be required to grant, or allow the use of, transmission rights that would jeopardize the tax-exempt status of any Local Furnishing Bond(s), Government Bonds, LIPA Tax-Exempt Bonds or any other tax-exempt debt obligations, or impair the ability of a Transmission Owner to issue future tax-exempt obligations.

2C. Awards of Incremental TCCs

The ISO shall follow the procedures set forth in this Section 2C to determine awards of Incremental TCCs to any person or entity that requests them in connection with the funding or construction of new transmission facilities or transmission facility improvements that increase the Transfer Capability of the New York State Transmission System. These procedures shall only apply to requests for awards that are submitted on or after the effective date of this Section 2C and not to: (i) requests for awards that are pending as of that date; (ii) or to Incremental TCC award determinations that were made by the ISO on or prior to that date; neither shall these procedures interfere with the completion of requests for awards that are pending as of that date or require that award determinations made by the ISO prior to that date be reopened. Throughout this Section 2C: (i) any change to, reconfiguration of, and/or construction of new transmission facilities or other transmission facility improvements that are potentially eligible for an award of

Incremental TCCs shall be referred to as an "Expansion;" and (ii) a person or entity that is pursuing an Expansion and requesting Incremental TCCs shall be referred to as an "Expander."

The ISO shall not award Incremental TCCs: (i) when the ISO cannot calculate the effect on Transfer Capability associated with an Expansion in the Day-Ahead Market with reasonable certainty; (ii) for Expansions that involve controllable transmission facilities that are under the operational control of a Control Area operator other than the ISO; or (iii) to the extent that an Expansion's impact on Transfer Capability is solely dependent on a Generator's operating state. Additional information concerning eligibility for Incremental TCC awards shall be set forth in the ISO Procedures.

The ISO shall also follow the procedures in this Section 2C to determine whether "Partial Outage Incremental TCCs" should be created in connection with final awards of Incremental TCCs.

2C.1 Requests for Incremental TCC Awards

An Expander pursuing an Expansion and seeking an Incremental TCC award shall submit a request for an award to the ISO. A request for an Incremental TCC award must be submitted prior to the associated Expansion's expected commercial operation date. A request for an Incremental TCC award shall not be deemed to be complete, and shall not be considered by the ISO, unless it includes all of the information and satisfies all of the technical requirements

required by this Section 2C and by the ISO Procedures. Prior to submitting its request for a non-binding estimate, an Expander must have: (i) completed all of the engineering studies that are required under the ISO OATT, including Attachments X, S, and Z; and (ii) obtained all permits and regulatory approvals necessary to commence construction. If an Expansion is subject to the Class Year study requirements under Attachment S of the ISO OATT then the Expander must have accepted its Class Year cost allocation and posted the security required under Attachment S.

As part of its request for an award, an Expander shall request that the ISO prepare one or more non-binding estimates of an Expansion's impact on Transfer Capability between one or more POI/POW combinations. The ISO shall be required to prepare up to three non-binding estimates with respect to an Expansion. Additional rules governing requests for non-binding estimates shall be set forth in the ISO Procedures.

An Expander that is not subject to Section 2.5 of Attachment N to the ISO OATT that requests an Incremental TCC award associated with an Expansion that will consist of multiple transmission facilities that might separately be taken out of service or derated in connection with the outage of an External transmission facility must provide additional information regarding partial outage states, as specified in the ISO Procedures, as part of its request. The ISO will use this information to analyze the creation of Partial Outage Incremental TCCs.

2C.2 Non-Binding Estimates

The ISO shall provide non-binding estimates of Incremental TCCs that might be awarded between different POI/POW combinations that are identified in a complete request for a non-binding estimate. The ISO shall only prepare non-binding estimates if the associated Expansion is expected to enter commercial operation within the current or next like Capability Period.

The ISO shall estimate whether, and to what extent, Incremental TCCs may be created by analyzing whether an Expansion will actually increase Transfer Capability with respect to the entire set of POI/POW combinations included in a request for a non-binding estimate. Incremental TCCs shall not be created for Transfer Capability that the ISO determines would exist on the system even in the absence of an Expansion. The ISO shall make these determinations using an Optimal Power Flow model that is updated and modified as necessary to represent the state of the New York State Transmission system both with and without the Expansion associated with the request for a non-binding estimate. If an Expansion is intended to increase voltage or transient stability limits the ISO shall conduct transfer limit studies as necessary to confirm the Expansion's impact on interface limits as specified in the ISO Procedures. Additional detail concerning the Optimal Power Flow model to be used by the ISO shall be set forth in the ISO Procedures. The ISO shall not be bound by the findings of previous engineering studies, conducted under the ISO OATT or otherwise, regarding the impact of an Expansion on Transfer Capability when preparing non-binding estimates (or when determining awards under Section 2C.4).

If the ISO estimates that Incremental TCCs would be created by an Expansion it shall separately estimate the quantity of Incremental TCCs that would be created for both the Summer and Winter Capability Periods.

2C.3 Partial Outage Incremental TCCs

The ISO shall use the additional information submitted by certain Expanders regarding partial outage states pursuant to Section 2C.1. to determine whether Partial Outage Incremental TCCs shall be created. Partial Outage Incremental TCCs shall not be awarded. They shall only be used to determine day-ahead outage charges, implemented through settlements for Day-Ahead Market Congestion Rents associated with Expansions that are partially out of service, or that are derated due to the outage of an External transmission facility, in connection with the calculation of outage charges under Section 2C.8.

Partial Outage Incremental TCCs shall be created to the extent that the ISO finds, as part of its determination of final Incremental TCC awards pursuant to Section 2C.4, that a revised set of Incremental TCCs would exist between a given POI/POW combination regardless of whether a portion of the associated Expansion is out of service or derated as a result of the outage of an External transmission facility. Partial Outage Incremental TCCs may be created between POI/POW combinations that differ from those for which the ISO may determine that Incremental TCCs would be available in a non-binding estimate or in any award of Incremental TCCs.

If the ISO determines that Partial Outage Incremental TCCs may be created as the result of an Expansion it shall separately calculate the number that would be created for the Summer and Winter Capability Periods.

2C.4 Incremental TCC Awards

The ISO shall respond to complete requests for Incremental TCC awards by determining: (i) whether, and to what extent, Incremental TCCs should be awarded for the POI/POW combinations selected by the Expander; and (ii) whether, and to what extent, Partial Outage Incremental TCCs should be created. An Expander may select all of the POI/POW combinations that were analyzed in any one of the non-binding estimates prepared by the ISO under Section 2C.2 to be included in the award determination. It may not select the POI/POW combinations from more than one non-binding estimate or select fewer than all of the POI/POW combinations that were analyzed in any one non-binding estimate.

The ISO shall determine both temporary and final awards using an Optimal Power Flow model that is updated and modified as necessary to represent the state of the New York State Transmission system both with and without the Expansion, and to represent any of the Expansion's partial outage states, at the time that an award is determined. The ISO shall determine whether, and to what extent, Incremental TCCs shall be awarded by analyzing whether an Expansion will actually increase Transfer Capability with respect to the entire set of POI/POW combinations included in a request for an award. Incremental TCCs shall not be awarded for Transfer Capability that the ISO determines would exist on the system even in the

absence of an Expansion. If an Expansion is intended to increase voltage or transient stability limits the ISO shall conduct transfer limit studies as necessary to confirm the Expansion's impact on interface limits as specified in the ISO Procedures. The ISO shall make separate determinations for temporary and final awards of Incremental TCCs.

The ISO shall only determine or make an Incremental TCC award if the associated Expansion is expected to enter commercial operation within the current or next like Capability Period.

The ISO shall only determine, award, or create Incremental TCCs (including, for purposes of this paragraph, Partial Outage Incremental TCCs) in whole number MW quantities. If the ISO determines that an Expansion will create one or more non-whole number quantity Incremental TCCs, the ISO shall round each non-whole number Incremental TCC to a whole number in a manner that minimizes the risk of infeasibility caused by rounding with respect to the entire Incremental TCC award.

If the ISO determines that Incremental TCCs should be awarded, it shall make separate awards for the Summer and Winter Capability Periods.

a. Temporary Awards

If the ISO determines that Incremental TCCs should be awarded in connection with an Expansion and the Expansion goes into commercial operation during a Capability Period, the ISO shall make a temporary award of Incremental TCCs as soon as reasonably possible after notice that the Expansion has entered commercial operation has been provided in writing to the

ISO pursuant to the ISO Procedures. Temporary awards of Incremental TCCs shall terminate at the end of the last day before a final award of Incremental TCCs becomes effective. In the case of an Expansion that enters commercial operation less than 90 days before the beginning of a Capability Period, the temporary award that is effective during the Summer Capability Period (or any portion thereof) may differ from the temporary award that is effective during the Winter Capability Period (or any portion thereof). The quantity of Incremental TCCs included in a temporary award may differ from the quantity included in any of the non-binding estimate(s) associated with the Expansion and/or in the final award.

b. Final Awards

Final awards of Incremental TCCs shall only be made after: (i) an Expansion has actually entered commercial operation; (ii) written notice has been provided to the ISO pursuant to the ISO Procedures; and (iii) the ISO has determined the final award using an Optimal Power Flow analysis that reflects the results of the most recently completed Centralized TCC Auction. The quantity of Incremental TCCs included in a final award may differ from the quantity included in the temporary award, or in the non-binding estimate(s), associated with the Expansion.

Incremental TCCs included in final awards shall become effective on the first day of the first Capability Period following the date that the associated Expansion enters commercial operation. If, however: (i) the associated Expansion enters commercial operation fewer than ninety days before the end of a Capability Period then the Incremental TCCs included in a final award shall become effective on the first day of the next like Capability Period after the

associated Expansion enters commercial operation; or (ii) the associated Expansion results in an increase to a limit that must be approved by the Operating Committee, and the Operating Committee's approval is granted fewer than ninety days before the end of a Capability Period, then the final award shall become effective on the first day of the next like Capability Period following the Operating Committee's approval.

If more than one Expansion enters commercial operation in the same Capability Period, the ISO shall make its final award determinations, and shall make final Incremental TCC awards, in the same order as the Expansions actually enter commercial operation.

2C.5 Acceptance of Incremental TCC Awards

An Expander may elect to accept or reject a temporary or final award of Incremental TCCs in its entirety. Partial acceptances shall not be permitted. Deadlines for confirming the acceptance or rejection of an award shall be specified in the ISO Procedures.

An Expander that elects to accept a final award of Incremental TCCs shall inform the ISO, no later than the time that it accepts its final award, of the awarded Incremental TCCs' duration. Incremental TCCs shall have a duration of no less than twenty and no more than fifty years, starting on the date that the final award becomes effective, provided that their duration may not exceed the expected operating life of the associated Expansion.

If an Expander fails to accept a final award of Incremental TCCs and to specify the award's duration by the deadline established in the ISO Procedures it will forfeit its right to collect Day-Ahead Market Congestion Rent payments in connection with the Incremental TCCs until it confirms its acceptance in the manner specified in the ISO Procedures.

2C.6 Attributes of Incremental TCCs

Incremental TCCs, but not partial outage Incremental TCCs, shall have the same attributes as other TCCs and shall be subject to the same rules under the ISO Tariffs, except as specifically provided in this Section 2C.

2C.7 Restrictions on Transfers of Incremental TCCs

Bilateral transfers of fewer than all of the Incremental TCCs associated with a given Expansion that were included in a final award shall not be allowed, *i.e.,* an Expander may only make bilateral transfers of all of the Incremental TCCs for all of the POI/POW combinations that were included in a final award for a given Expansion. This restriction shall not prohibit the sale of fewer than all of the Incremental TCCs included in a final award through a Centralized TCC Auction or a Reconfiguration Auction. Transferees of Incremental TCCs shall be subject to all existing ISO credit requirements and may be subject to any future credit requirements that may be applied to TCCs with a duration longer than one year.

Incremental TCCs that are awarded pursuant to a temporary award may not be sold or transferred through a bilateral transfer, through a Centralized TCC Auction, through a Reconfiguration Auction, or otherwise.

2C.8 Outage Charges

Any person or entity that is not subject to Section 2.5 of Attachment N to the ISO OATT and that owns an Expansion (or a portion of an Expansion) associated with a temporary or final award of Incremental TCCs shall pay an outage charge to the ISO for any hour in the Day-Ahead Market during which the Expansion associated with the Incremental TCCs is modeled to be wholly or partially out of service. All outage charges shall be implemented through the billing of Day-Ahead Market Congestion Rents to the person or entity responsible for paying the outage charge and, as such, will be credits to Day-Ahead Market Congestion Rents in the ISO settlement system.

Outage charges shall be determined as follows:

- If the entire Expansion is modeled as out of service in the Day-Ahead Market; the outage charge shall be equal to the Day-Ahead Market Congestion Rent payment for all of the Incremental TCCs associated with the entire Expansion.

- If one or more portions of an Expansion are modeled as out of service in the Day-Ahead Market, or derated by the outage of an External Transmission facility, and Partial Outage Incremental TCCs have not been created, the outage charge shall be equal to the Day-Ahead Market Congestion Rent payment for all of the Incremental TCCs associated with the entire Expansion.

- If one or more portions of an Expansion are modeled as out of service in the Day-Ahead Market or are caused to be out of service or derated by the outage of an External transmission facility, and Partial Outage Incremental TCCs have been created for such an out-of-service state or derating, the outage charge shall be calculated as follows:

Outage charge = A – B

where:

- "A" is the sum, over all different POI and POW combinations associated with the Incremental TCCs for an Expansion, of the product of (i) the Congestion Component at the POW minus the Congestion Component at the POI; and (ii) the number of Incremental TCCs between that POI and POW associated with the Expansion, and

  "B" is the sum, over all different POI and POW combinations associated with the Partial Outage Incremental TCCs for that out-of-service state or derating of the Expansion, of the product of: (i) the Congestion Component at the POW minus the Congestion Component at the POI; and (ii) the number of Partial Outage Incremental TCCs between that POI and POW associated with that out-of-service state or derating of the Expansion.

3.0 Description of the Reduction Process

Before each Auction, the ISO shall ensure that all of the following correspond to a simultaneously feasible security constrained Power Flow: (i) existing TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction, including Fixed Price TCCs that were created pursuant to~~: (A)~~ Section 2A of Part IV of this Attachment B ~~and that have certain characteristics specified in Part IV of this Attachment B; or (B) Section 2B of Part IV of this Attachment B prior to the previous Centralized TCC Auction;~~ and Incremental TCCs awarded pursuant to Section 2C of Part IV of this Attachment B; (ii) Grandfathered Rights, and (iii) ETCNL and Original Residual TCCs not previously sold as TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction. In some cases, the total set of these TCCs, Grandfathered Rights, ~~and~~ETCNL and Original Residual TCCs may not correspond to a simultaneously feasible Power Flow in some period of time. In such cases, the ETCNL and TCCs Subject to Reduction, as listed in

Table 1 of Attachment M of the ISO OATT (henceforth "Table 1 ETCNL/TCCs"), will be reduced for that period in order to make the total set of existing TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction, Grandfathered Rights, and ETCNL not accounted for through existing TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction correspond to a simultaneously feasible Power Flow.

This reduction procedure will use the same optimization model that will be used in the Auction to determine the amount by which Table 1 ETCNL/TCCs will be reduced. Each of the existing TCCs, ETCNL, and Grandfathered Rights that is not included in Table 1 of Attachment M of the ISO OATT will be represented in the Auction model by a fixed injection of 1 MW at its Point of Injection, and a fixed withdrawal of 1 MW at its Point of Withdrawal. Bids for each Table 1 ETCNL/TCC will consist of a line which intersects the y-axis at $1/TCC (or any other value selected by the ISO, so long as that value is constant for each bid curve for all of these Table 1 ETCNL/TCCs) and which intersects the x-axis at 1 MW. An example of the bid curve B_j for a representative Table 1 ETCNL/TCC is illustrated in the diagram below.

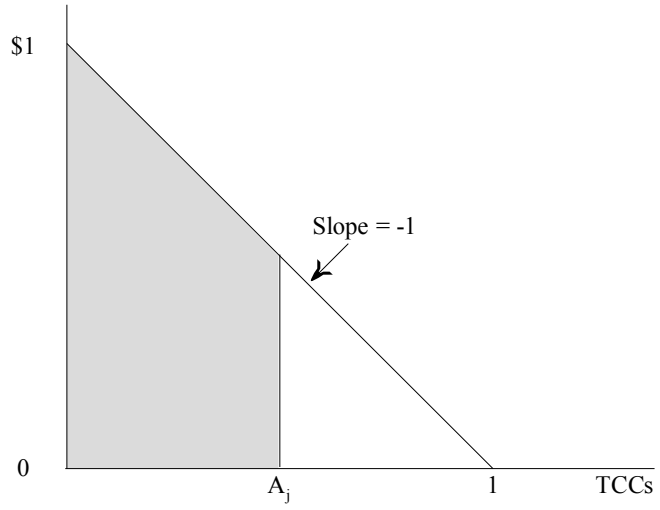
The TCC Auction software will determine the amount of each Table 1 ETCNL/TCC that will remain after reduction, which is designated as A_j in the diagram. The objective function that the TCC Auction software will use to determine these coefficients A_j will be to maximize:

$$\sum_{j \in N} \int_{0}^{A_j} B_j$$

where N is the set of Table 1 ETCNL/TCCs, and all other variables are as defined above, subject to the Constraint that injections and withdrawals corresponding to

each of the following must be simultaneously feasible in a Power Flow: (i) existing TCCs that are valid for any portion of the duration of any TCCs to be sold in the Centralized TCC Auction, including Fixed Price TCCs that were created pursuant to Section 2A of Part IV of this Attachment B and that have certain characteristics specified in Attachment N to this Tariff and Incremental TCCs awarded pursuant to Section 2C of Part IV of this Attachment B; (ii) Grandfathered Rights; and (iii)ETCNL not previously sold as TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction. As a result, the objective function will maximize the area under the bid curve for each Table 1 ETCNL/TCC that remains after reduction, summed over all Table 1
ETCNL/TCCs, subject to the simultaneous feasibility Constraint. This area for one Table 1 ETCNL/TCC is illustrated in the following diagram:

Bid Curve B_j for TCC_j



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4.0 Calculation of Residual Transmission Capacity to Establish Original Residual TCCs

Before the first Auction, the ISO calculated the Residual Transmission Capacity across each transmission Interface in both the Summer and Winter Capability Periods from the Operating Study Power Flow dispatch and allocated the Residual Transmission Capacity across Interfaces to individual Transmission Owners in the form of Original Residual TCCs in accordance with the Interface MW-Mile Methodology. The ISO's allocation of Original Residual TCCs to Transmission Owners shall remain the

same for at least the duration of the LBMP Transition Period. At the conclusion of the LBMP Transition Period, the Transmission Owners will review this methodology and shall have the sole discretion to modify by unanimous vote, the procedure to be used to allocate Residual Transmission Capacity across Interfaces in the form of Original Residual TCCs, and to determine the duration of all such Original Residual TCCs allocated.

Original Residual TCCs for each Interface will constitute point-to-point TCCs, each from a Point of Injection in one Load Zone to a Point of Withdrawal in another Load Zone.

5.0 Reservation of Transmission Capacity in an Auction through ETCNL TCCs

5.1 Subject to the limitations set forth in Section 5.2 of this Part IV of this Attachment B, a Transmission Owner with a set of ETCNL designated from a Point of Injection to a Point of Withdrawal, as detailed in Table 1 of this Part IV of this Attachment B, shall have a right prior to each Centralized TCC Auction to convert into an ETCNL TCC each megawatt of transmission capacity of that set of ETCNL that has not previously been sold as TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction and that remains after any reduction pursuant to Section 3.0 of this Part IV of this Attachment B. Each ETCNL TCC will have a duration of 6 months and will have the same POI and POW as the original set of ETCNL converted into ETCNL TCCs. If a Transmission Owner fails to exercise its right to convert a megawatt of ETCNL into an ETCNL TCC in the manner and by the date specified in this Section 5.0, the Transmission Owner shall forfeit its right to convert ETCNL into ETCNL TCCs for the Centralized TCC Auction. Any ETCNL not converted to ETCNL TCCs shall remain valid as ETCNL, and shall be released for the Centralized TCC Auction pursuant to the provisions of this Part IV of this Attachment B.

5.2 Notwithstanding any other provisions of this Section 5.0, a Transmission Owner shall not convert into ETCNL TCCs an amount greater than the Capacity Reservation

Cap of the transmission capacity of each set of the Transmission Owner's ETCNL; *provided, however*, that if (i) a Transmission Owner has a set of ETCNL from one POI and one or more sets of ETCNL from another POI, each of which are in the same Load Zone, and (ii) each of these sets of ETCNL has the same POW, then there shall be no maximum amount of transmission capacity from a single set of ETCNL that a Transmission Owner shall have a right to convert into ETCNL TCCs, but a Transmission Owner shall not convert into ETCNL TCCs an amount greater than the Capacity Reservation Cap of the total transmission capacity of all of the Transmission Owner's sets of ETCNL.

ETCNL may be converted only into whole ETCNL TCCs. If the Capacity Reservation Cap multiplied by the transmission capacity of a set of ETCNL or by the total transmission capacity of multiple sets of ETCNL, as the case may be pursuant to this Section 5.2, does not yield a whole number, then the number of ETCNL TCCs that a Transmission Owner may convert from ETCNL will be reduced to the nearest integer and the number of megawatts of ETCNL that a Transmission Owner may not convert to ETCNL TCCs will be increased to the nearest integer.

5.3 The ISO shall determine the Capacity Reservation Cap prior to each Centralized TCC Auction, and shall post the Capacity Reservation Cap on its website. The Capacity Reservation Cap shall be any amount less than or equal to five percent (5%).

5.4 Before each Centralized TCC Auction, the ISO shall, subsequent to performing the reduction process pursuant to Section 3.0 of this Part IV of this Attachment B, determine the number of megawatts of transmission capacity from each of the Transmission Owner's sets of ETCNL that the Transmission Owner shall have a right to convert into ETCNL TCCs. The ISO shall notify each Transmission Owner of the ISO's determination with regard to its ETCNL in a written notice to be received by the Transmission Owner on or before the date specified in the timeline for the relevant Centralized TCC Auction posted on the ISO's website, as that timeline may be revised from time to time.

5.5 A Transmission Owner may exercise its right to convert its ETCNL into ETCNL TCCs by notifying the ISO of the number of megawatts of transmission capacity from each of the Transmission Owner's sets of ETCNL that the Transmission Owner elects to convert to ETCNL TCCs. The Transmission Owner shall make the notification in a written notice to be received by the ISO on or before the date specified in the timeline for the relevant Centralized TCC Auction posted on the ISO's website, as that timeline may be revised from time to time. After receipt by the ISO, the Transmission Owner's notification shall not be modified or revoked, except by permission of the ISO.

6.0 Reservation of Transmission Capacity in an Auction through RCRR TCCs

6.1 Before each Centralized TCC Auction, the ISO shall, subsequent to performing the reduction process pursuant to Section 3.0 of this Part IV of this Attachment B, determine the number of RCRRs between each of the following contiguous pairs of Load Zones within the NYCA that the ISO shall allocate to Transmission Owners: West – Genesee; Genesee – Central; North – Mohawk Valley; Central - Mohawk Valley; Mohawk Valley – Capital; Capital - Hudson Valley; Hudson Valley – Millwood; Millwood – Dunwoodie; Dunwoodie - New York City; Dunwoodie - Long Island.

The ISO shall determine the number of RCRRs that the ISO shall allocate for each of these Load Zone pairs by maximizing the number of RCRRs between each Load Zone pair that are simultaneously feasible with all (i) existing TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction, (ii) Grandfathered Rights, and (iii) ETCNL not previously sold as TCCs that are valid for any part of the duration of any TCCs to be sold in the Centralized TCC Auction and that

remains after any reduction pursuant to Section 3.0 of this Part IV of this Attachment B. To do so, the ISO will use the same optimization model that is used in determining the award of TCCs in a Centralized TCC Auction, and will represent each existing TCC, including TCCs that were created pursuant to Section 2A of Part IV of this Attachment B, or awarded pursuant to Section 2C of Part IV of this Attachment B, each Grandfathered Right, each ETCNL, and a large number of RCRRs in the model as a fixed injection of 1 MW at the POI of the existing TCC, Grandfathered Right, ETCNL, or potential RCRR, and a fixed withdrawal of 1 MW at the POW of the existing TCC, Grandfathered Right, ETCNL, or potential RCRR. The Centralized TCC Auction software will determine the maximum number of RCRRs for each Load Zone pair by maximizing the area under the bid curve $Bids_j$ in the following formula, subject to the Constraint that the injections and withdrawals corresponding to the existing TCC, Grandfathered Right, ETCNL, and potential RCRR must correspond to a simultaneously feasible Power Flow:

$$\sum_{j \in N} \int_{0}^{Aj} \text{Bidsj}$$

Where,

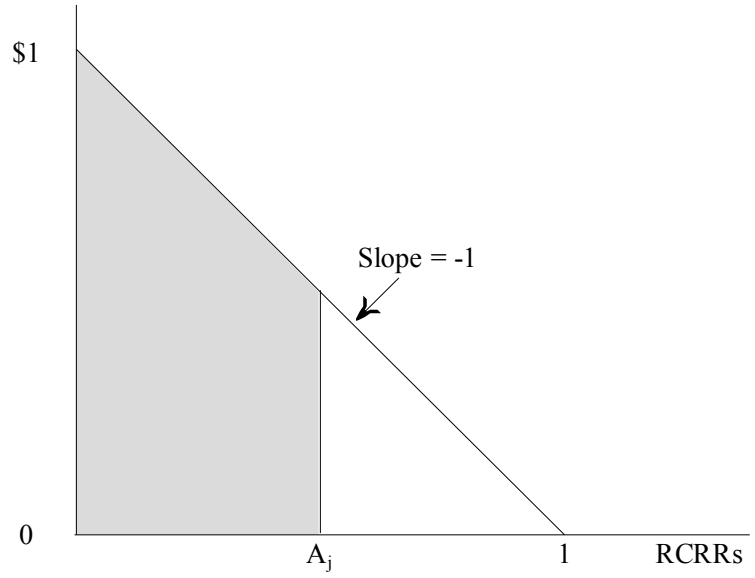
j = A Load Zone pair

N = The set of all Load Zone pairs for which the ISO shall calculate RCRRs

A_j = The number of RCRRs defined between Load Zone pair *j*

$Bids_j$ = The line that intersects the y-axis at $1/TCC and which intersects the x-axis at 1 MW, as illustrated in the bid curve illustrated below.

Bid Curve $Bids_j$ for $RCRR_j$



The ISO shall determine the POI and POW of each RCRR by assigning the POI and POW that the ISO expects, based on the ISO's review of historical and other information available to the ISO, to produce positive Congestion payments to a Transmission Owner that converts the RCRR into an RCRR TCC for the majority of the duration, in hours, of the longest duration TCCs to be sold in the relevant Centralized TCC Auction.

6.2 The ISO shall allocate RCRRs between each Load Zone pair to each Transmission Owner in an amount equal to the product of (i) the number of RCRRs between the Load Zone pair for the Centralized TCC Auction as calculated pursuant to Section 6.1 of this Part IV of this Attachment B, and (ii) the Transmission Owner's allocation factor for that Load Zone pair, which shall be calculated pursuant to the following formula:

$$\text{Allocation Factor}_{t,j} = \frac{\sum_{a \in A} \left(\text{Interface Revenue}_{t,j,a}\right)}{\sum_{\substack{t \in T \\ a \in A}} \left(\text{Interface Revenue}_{t,j,a}\right)}$$

Where,

Allocation Factor$_{t,j}$	=	The allocation factor used by the ISO to allocate a share of RCRRs between Load Zone pair *j* to Transmission Owner *t* for a Centralized TCC Auction
Interface Revenue$_{t,j,a}$	=	The revenue from the sale of TCCs (excluding those TCCs for which revenue is allocated to a Transmission Owner pursuant to Sections 3.3 through 3.5 of Attachment N) associated with the Interface between Load Zone pair *j* in Centralized TCC Auction *a* assigned to Transmission Owner *t*
t	=	A Transmission Owner
T	=	The set of all Transmission Owners
a	=	A Centralized TCC Auction
A	=	The set of Centralized TCC Auctions beginning with the Centralized TCC Auction held for the 2000 Summer Capability Period and ending with the Centralized TCC Auction held for the 2003-2004 Winter Capability Period
j	=	A Load Zone pair.

6.3 Subject to the limitations set forth in Section 6.4 of this Part IV of this Attachment B, a Transmission Owner allocated an RCRR pursuant to Section 6.2 of this Part IV of this Attachment B shall have a right prior to each Centralized TCC Auction to convert each RCRR into an RCRR TCC. Each RCRR TCC will have a duration of 6 months and will have the same POW and POI as the RCRR from which it was converted. If a Transmission Owner fails to exercise its right to convert an RCRR into an RCRR TCC in the manner and by the date specified in this Section 6.0, the Transmission Owner shall forfeit the RCRR. Each RCRR shall be valid only for the Centralized TCC Auction for which it was allocated.

6.4 Notwithstanding any other provisions of this Section 6.0, a Transmission Owner shall not convert an amount greater than the Capacity Reservation Cap of the Transmission Owner's RCRRs into RCRR TCCs.

RCRRs may be converted only into whole RCRR TCCs. If the Capacity Reservation Cap multiplied by the number of RCRR does not yield a whole number, then the number of RCRR TCCs that a Transmission Owner shall have a right to convert from RCRRs will be reduced to the nearest integer and the number of RCRRs that a Transmission Owner shall not have a right to convert to RCRR TCCs will be increased to the nearest integer.

6.5 Before each Centralized TCC Auction, the ISO shall, subsequent to performing the reduction process pursuant to Section 3.0 of this Part IV of this Attachment B, determine the number of RCRRs that each Transmission Owner shall have a right to convert to RCRR TCCs. The ISO shall notify each Transmission Owner of the ISO's determination with regard to its RCRRs in a written notice to be received by the Transmission Owner on or before the date specified in the timeline for the relevant Centralized TCC Auction posted on the ISO's website, as that timeline may be revised from time to time.

6.6 A Transmission Owner may exercise its right to convert its RCRRs into RCRR TCCs by notifying the ISO of the number of the Transmission Owner's RCRRs that the Transmission Owner elects to convert to RCRR TCCs. The Transmission Owner shall make the notification in a written notice to be received by the ISO on or before the date specified in the timeline for the relevant Centralized TCC Auction posted on the ISO's website, as that timeline may be revised from time to time. After receipt by the ISO, the Transmission Owner's notification shall not be modified or revoked, except by permission of the ISO.

6.7 A Transmission Owner shall not sell its RCRR TCC except through a Centralized TCC Auction or Reconfiguration Auction, and shall not sell its RCRR TCC through Direct Sales or through Secondary Markets.

7.0 Sale of TCCs by Transmission Owners directly over the OASIS ("Direct Sale")

Transmission Owners may sell their Original Residual TCCs, ETCNL, and Grandfathered TCCs directly to buyers through a Direct Sale. Sellers and potential buyers shall communicate all offers to sell and buy TCCs, through a Direct Sale, solely over the ISO's OASIS. Buyers and Sellers of TCCs in the Secondary Market or by Direct Sale will have the responsibility to report their TCC transactions to the ISO, whereupon the ISO will post them on the OASIS.

Buyers in a Direct Sale that elect to become Primary Holders must meet the eligibility criteria in Section 11.0 of the ISO OATT. In addition, each potential buyer that elects to become a Primary Holder shall submit information to the ISO regarding the buyer's creditworthiness, as the ISO may require, along with a statement signed by the buyer, representing that the buyer is financially able and willing to pay for the TCCs it proposes to purchase as well as all other obligations associated with the purchase of such TCCs, including without limitation, Congestion payments due pursuant to Section 2.3 of Part V of this Attachment B. The aggregate value of the buyer's offers to purchase TCCs (either in Direct Sales or in the Auction) and a reasonable estimate of the buyer's obligations associated with the purchase of such TCCs shall not exceed the buyer's ability to pay, as determined by the ISO (based upon an analysis of the buyer's creditworthiness).

Where a buyer electing to become a Primary Holder fails to meet the eligibility

criteria or the above financial criteria (as determined by the ISO), or fails to provide information required by the ISO, the seller of the TCCs in the Direct Sale shall be the Primary Holder with respect to those TCCs. The ISO shall make all Settlements with Primary Holders.

During the Direct Sale process, the Transmission Owner shall have the sole discretion to accept or reject an offer to purchase TCCs. Each Transmission Owner shall develop and apply a non-discriminatory method for choosing the winning offers consistent with FERC Order No. 889 et seq., and may establish eligibility requirements that shall be no more stringent than those set forth in Section 11.0 of the ISO OATT. The Transmission Owner shall post information regarding the results of the Direct Sale on the ISO's OASIS promptly after the Direct Sale is completed. The information shall include: (i) the amount of TCCs sold (in MW); (ii) the Point of Injection and Point of Withdrawal for each TCC sold; and (iii) the price paid for each TCC.

Primary Owners of Original Residual TCCs shall inform the ISO of all sales of those TCCs, including the identity of the buyers. Transmission Owners may offer to sell Original Residual TCCs for a period not extending beyond the end of the LBMP Transition Period, and Grandfathered TCCs for periods not extending beyond the termination date of those TCCs; however, these TCCs shall not be valid (i.e., the Congestion payment rights and obligations of

the Primary Holders of those TCCs shall not commence) until TCCs sold in the first Auction became valid. Payment for TCCs purchased in a Direct Sale shall be in accordance with the terms and conditions of the agreement between the buyer and seller.

8.0 Auctions for TCCs

8.1 Transmission Capacity Sold in Centralized TCC Auctions

In each Centralized TCC Auction, the following transmission capacity shall be available for purchase in the form of TCCs: (1) following any reduction pursuant to Section 3.0 of this Part IV of this Attachment B, all of the transmission capacity associated with ETCNL, that the Transmission Owners do not sell through a Direct Sale in advance of the Auction, that the Transmission Owners do not convert to ETCNL TCCs; (2) all of the transmission capacity associated with Original Residual TCCs, that the Transmission Owners do not sell through a Direct Sale in advance of the Auction, that the Transmission Owners do not convert to RCRR TCCs; (3) all of the transmission capacity associated with TCCs offered for sale by TCC Primary Holders; and (4) any other transmission capacity in excess of that claimed by ETAs and Original Residual TCCs that the Transmission Owners do not convert to RCRR TCC.

8.2 Phases of Centralized TCC Auctions

The ISO will make Transmission Service available at a fixed price through the sale of TCCs in an Auction which will be accomplished in two phases.

Phase 1: "Initial Auction" for TCCs - The TCCs purchased in this Auction shall have varying durations. TCCs available for each of these durations will be sold in a separate "sub-auction."

Phase 2: "End-State Auction" for TCCs - When the End--State Auction software is ready, TCCs of different durations will be sold in a single End-State Auction.

8.3 Phase 1: Initial Auctions for TCCs

TCCs with durations of 6 months and 1 year shall be available in each Centralized TCC Auction. TCCs with durations of 2 years, 3 years, 4 years, or 5 years may also be available in this Auction, at the ISO's discretion.

The percentage of the transmission capacity that is sold in an Auction as TCCs

of each of these different durations will be determined by the ISO, subject to the requirement specified below.

The final decision concerning the percentage of the transmission capacity that will be sold in the Auction as TCCs of different durations will be made by the ISO. The ISO will conduct a polling process to assess the market demand for TCCs with different durations, which it will take into consideration when making this determination. The ISO may elect not to sell any TCCs with one or more of the above durations. However, all transmission

capacity not associated with ETAs or outstanding TCCs or not reserved through conversion of ETCNL to ETCNL TCCs or RCRRs to RCRR TCCs must be available to support TCCs of some duration sold in the Auction.

The Initial Auction will consist of a series of sub-auctions, which will be conducted consecutively. In each sub-auction, TCCs of a single duration will be available (e.g., only TCCs with a five-year duration might be available in one sub-auction). Sub-auctions will be conducted in decreasing order of the length of the period for which TCCs sold in the sub-auction are valid. Therefore, if the ISO were to determine that five years would be the maximum length of TCCs available in the Initial Auction, then the sub-auction for TCCs with a duration of five years would be

held first. All TCCs sold in the 5-year TCC sub-auction (other than those offered for sale in the next sub-auction, as described below) would then be modeled as fixed injections and withdrawals in the next sub-auction, in which TCCs of the next longest duration, as determined by the ISO (e.g., four years), would be available for purchase. Following that sub-auction, TCCs sold in either of the first two sub-auctions (other than those offered for sale in the next sub-auction) would then be modeled as fixed injections and withdrawals in the third sub-auction (e.g., a sub-auction for TCCs with a duration of three years), etc.

TCCs purchased in any sub-auction may be resold in a subsequent sub-auction. For example, the purchaser of a 5-year TCC purchased in the 5 year sub-auction may release a 4-year TCC with the same Point of Injection and Point of Withdrawal for sale in the 4-year sub-auction. Similarly, that purchaser could instead release a corresponding 3-year TCC for sale in the 3-year sub-auction. Any TCC that was outstanding before the Initial Auction may be released for sale in any sub-auction.

Each sub-auction shall normally consist of two stages. Stage 1 of each sub-auction shall consist of at least four rounds. The ISO shall have the authority to determine the

percentage of the available transmission capacity that will be sold in each round of each sub-auction. The ISO shall announce these percentages before the sub-auctions. The

Filed to comply with order of the Federal Energy Regulatory Commission, Docket Nos. ER07-521-000 and -001, issued April 16, 2008, 123 FERC ¶ 61,044 (2008).

ISO shall also determine the maximum duration of TCCs sold in the Initial Auction, subject to the limitations above, and whether the TCCs sold in an Initial Auction shall be separately available for purchase as on-peak and off-peak TCCs. (For purposes of this Attachment, the on-peak period will include the hours from 7 a.m. to 1-1 p.m. Prevailing Eastern Time Monday through Friday. The remaining hours in each week will be included in the off-peak period.)

All available transmission capacity will be sold in Initial Auctions, including transmission Capacity that would have been required to support Original Residual TCCs that the Transmission Owners do not sell directly in advance of the Auction, any other transmission capacity in excess of that claimed by grandfathered transmission agreements, Original Residual TCCs, TCCs sold in previous auctions whose Primary Holders offer those TCCs into the Auction, and ETCNL; *provided, however,* that transmission capacity converted into ETCNL TCCs, RCRR TCCs, and Fixed Price TCCs created pursuant to Section 2A above will not be available for sale in Centralized TCC Auctions.

8.4 Phase 2: End-State Auctions for TCCs

The End-State Auction will be held annually. The date for the first End-State Auction shall be determined by the ISO. The period during which each TCC sold in an End-State Auction is valid shall begin on the beginning date of a Capability Period, and shall conclude on the ending date of a Capability Period.

The ISO will determine the maximum duration and minimum duration of the TCCs available in the End-State Auctions. The ISO shall have the authority to determine the percentage of the available transmission capacity that will be sold in each round of the Auction. The ISO shall announce these percentages before the Auction. The ISO shall also determine the periods for which TCCs will be sold in End-State Auctions (e.g., TCCs valid during on-peak and off-peak periods, or TCCs valid during Winter and Summer Capability Periods). The ISO may elect to vary the duration or the periods for which TCCs will be available from

one End-State Auction to the next End-State Auction.

The End-State Auction will not include separate sub-auctions for TCCs of different durations. Instead, TCCs of each permitted duration will be allocated as the result of the operation of a single Auction. If a Market Participant wishes to purchase a TCC beginning in the Summer Capability Period of 2003, and ending in the Winter Capability Period of 2004-2005, it would submit a single Bid for this TCC. If that Bid is a winning Bid, the bidder would be awarded a TCC valid for the entire two year-long period; if the Bid is a losing Bid, the bidder would not receive the TCC for any portion of this period. The ISO will not specify in advance the portion of system transmission capacity that will be used to create TCCs of differing durations. Rather, the durations of TCCs awarded will be determined as part of the objective of the Auction, and will depend on the Bids submitted by participants in the Auction.

In a given round of the End-State Auction, the Market--Clearing Price determined for a TCC that is valid for multiple Capability Periods will equal the sum of the Market--Clearing Prices for shorter-term TCCs with the same Point of Injection and Point of Withdrawal, which in aggregate cover the same period for which the longer-term TCC is valid. (For example, the price of a TCC that is valid from May 2001 through April 2003 would equal the sum of the prices in that round for (1) TCCs valid from May 2001 through

April 2002 and (2) TCCs valid from May 2002 through April 2003.)

The End-State Auction will include two stages, with each stage including multiple rounds of bidding, as described elsewhere in this Attachment.

Transmission capacity that can be used to support TCCs sold in End-State Auctions shall include all transmission capacity except that necessary to support the following: Original Residual TCCs that the Transmission Owners sell directly in advance of the Auction; any TCCs previously allocated (either in an Auction or through other means) that have not been offered for sale in this Auction; and transmission capacity needed to support Grandfathered Rights.

The End-State Auction will allow reconfiguration of the TCCs sold in the previous Auctions. An entity holding a five-year TCC, for example, may release a TCC for some or all of the period for which that TCC is valid for sale in the End-State Auction.

If necessary, the ISO may elect to conduct a semi-annual Auction to sell six-month TCCs between annual End-State Auctions. The transmission capacity that can be used to support TCCs purchased in this Auction shall include the portion of the transmission capacity sold in the previous End-State Auction as six-month TCCs, as well as any other outstanding TCC whose Primary Holder elects to release it for sale in this Auction.

8.5 Reconfiguration Auctions

A Reconfiguration Auction is an auction in which monthly TCCs may be offered and purchased. This will allow Market Participants to purchase and sell short-term TCCs. Reconfiguration Auctions will also capture short-term changes in transmission capacity. Following each Initial or End-State Auction, the ISO will conduct Reconfiguration Auctions monthly and TCCs purchased in Reconfiguration Auctions will be valid for the month following the Reconfiguration Auction. A Reconfiguration Auction will consist of a single round. Any Primary Holder of a TCC, including a purchaser of a TCC in an Auction that has not sold that TCC and a Transmission Owner that is the Primary Owner of an ETCNL TCC or RCRR TCC, may offer that TCC for sale in a Reconfiguration Auction. The transmission capacity used to support these TCCs, as well as any other transmission capacity not required to support already-outstanding TCCs, will be available to support TCCs purchased in the Reconfiguration Auction.

9.0 Procedures for Sales of TCCs in Each Auction

9.1 Auction Structure

Eligibility to Bid in Stage 1 and Stage 2 - TCCs may be offered for sale in each stage of the Auction. Primary Owners (who have not sold their TCCs in a Direct Sale),

Filed to comply with Order No. 681 of the Federal Energy Regulatory Commission, Docket No. RM06-8-000, issued July 20, 2006, 116 FERC ¶ 61,077 (2006) and Order No. 681-A, Docket No. RM06-8-001, issued November 16, 2006, 117 FERC ¶ 61,201 (2006).

purchasers of TCCs in Direct Sales (who qualify as Primary Holders), and purchasers of TCCs in previous Auctions (who have not subsequently sold their TCCs) may offer TCCs for sale in Stage 1. If they do so, they must specify all of the TCCs they wish to offer in Stage 1 before Stage 1 begins. The following holders of TCCs may offer to sell TCCs in each round of Stage 2: (i) Primary Owners who did not sell those TCCs in a Direct Sale or in a previous round of the Auction (in either Stage 1 or Stage 2); (ii) purchasers of TCCs in previous rounds of that Auction or in previous Auctions who have not subsequently sold those TCCs through an Auction; and (iii) purchasers of TCCs through a Direct Sale who qualify to become Primary Holders and have not already sold those TCCs through an Auction or through a Direct Sale.

Bid Requirements - Bidders shall submit Bids into the Auction in accordance with this Attachment. Bidders shall submit Bids such that the sum of the value of its Bids (excluding Bids for TCCs already held by that bidder) shall not exceed that bidder's ability to pay for TCCs.

Bidding Rounds - Bidders shall be awarded TCCs in each round of the Auction and shall be charged the market clearing price for that round, as defined in this Attachment, for all TCCs they purchase. For purposes of determining payments to Primary Holders who release TCCs into the Auction, each Primary Holder that offers

TCCs for sale in Stage 1 of the Auction shall be deemed to have offered a portion of those TCCs for sale in each round of Stage 1 based on the scaling factors defined by the ISO for each round of the Auction (as further defined below). Prior to each Auction, the ISO shall determine the percentage of TCCs to be offered for sale in each round of Stage 1 of the Auction, such that all of the TCCs offered for sale in Stage 1 shall be offered by the last round of Stage 1. The percentages may be different in each round. The "scaling factor" for each round in Stage 1 shall equal the percentage of TCCs to be sold in Stage 1 that have not already been sold in a previous round of Stage 1, divided by the percentage of TCCs to be sold in that round of Stage 1. TCCs that may be sold in each round shall be determined by dividing the TCCs offered for sale in Stage 1 by the scaling factor applicable to that round (See examples in Section 9.9 of this Part IV of this Attachment B).

Stage 2 of the Auction shall terminate: (i) if no Primary Owner of a Grandfathered TCC, Original Residual TCC, ETCNL TCC, or RCRR TCC, and no purchaser of TCCs in an earlier round of the Auction offers to sell any TCCs in a round; (ii) if no TCCs are purchased or sold in two (2) consecutive rounds; or (iii) upon the satisfaction of other criteria defined by the ISO.

Primary Holders - The ISO shall make all Day-Ahead Congestion Rent Settlements with Primary Holders.

Reconfiguration Auctions - All rules stated in this Section 9.0 for

Stage 1 of an Initial or an End-State Auction shall also apply to Reconfiguration Auctions. The scaling factor for the single round of a Reconfiguration Auction shall be one, since all transmission capacity other than that needed to support already-outstanding TCCs and Grandfathered Rights will be available to support TCCs sold in the Auction.

9.2 Responsibilities of the ISO

The ISO shall establish the Auction rules and procedures consistent with the ISO OATT. The ISO shall conduct the Optimal Power Flows in each round of the Auction. The ISO will verify that the Optimal Power Flows calculated in each round of the Auction corresponds to a simultaneously feasible Power Flow as described in Section 9.7 of this Part IV of this Attachment B. The ISO shall notify the Transmission Owners if: (1) the Optimal Power Flow results calculated are inaccurate; or (2) the Optimal Power Flow is not calculated in accordance with the correct procedure.

Additionally, the ISO will determine the information pertaining to the Auction to be made available to Auction participants over the OASIS and publish information on its OASIS accordingly. The ISO will identify the details to be included in development of the Auction software and arrange for development of the software.

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The ISO will evaluate each bidder's ability to pay for TCCs. As a result of this evaluation, the ISO will state a limit before the Auction on the value of the TCCs that the entity may be awarded in Direct Sales or in the Auction, and collect signed statements from each entity bidding into the Auction committing that entity to pay for any TCCs that it is awarded in the Auction. Bidders will not be permitted to submit Bids that exceed this allowable limit. The ISO shall not reveal the Bid Prices submitted by any bidder in the Auction until six months following the date of the Auction. When these Bid Prices are posted, the names of the bidders shall not be publicly revealed, but the data shall be posted in a way that permits third parties to track each individual bidder's Bids over time. The ISO will settle all Centralized TCC Auctions and Reconfiguration Auctions, and will settle all Congestion settlements related to the Day-Ahead Market, pursuant to Part V of this Attachment B.

9.3 Additional Responsibilities of the ISO

The ISO shall be capable of completing the Auction within the time frame specified in this Attachment. The ISO will establish an auditable information system to facilitate analysis and acceptance or rejection of Bids, and to provide a record of all Bids and the conversion of ETAs into Fixed Price TCCs. The ISO shall also provide all necessary assistance in the resolution of disputes that arise from questions regarding the acceptance, rejection, award and recording of Bids or ETAs into Fixed Price TCCs, pursuant to Section 2A above. The ISO will establish a system to communicate Auction-related information to all Auction participants between rounds of the Auction. (This last requirement will not apply to single-round Auctions.)

The ISO will receive Bids to buy TCCs from any entity that meets the eligibility criteria established in Section 11.0 of the ISO OATT and will implement the Auction bidding rules previously established by the ISO.

The ISO will be required to solve Optimum Power Flows for the NYS Transmission System; properly utilize an Optimum Power Flow program to determine the set of winning Bids for each round of the Auction; and calculate the market clearing price of all TCCs at the conclusion of each round of the Auction, in the manner described in this Attachment.

9.4 Responsibilities of each Bidder

Each bidder shall submit the following information with its Bids: (i) the number of TCCs for which an offer to purchase is made, (ii) the Bid Price (in $/TCC) which represents the maximum amount the bidder is willing to pay for the TCC (Bid Prices may be negative, indicating that a bidder would have to be paid in order to accept a TCC); (iii) the location of the Point of Injection and the Point of Withdrawal for the TCC to which the Bid applies (these locations may be any locations for which the ISO calculates an LBMP); (iv) if the Auction is an Initial Auction, the duration in multiples of Capability Periods of the TCC for which the bidder is bidding; and (v) if the Auction is an End-State Auction, the points in time at which the TCC bid upon begins to be valid (which must be the beginning of a Capability Period) and at which the TCC bid upon ceases to be valid (which must be the end of a Capability Period, and which may not extend beyond the last point in time for which TCCs will be available in that Auction). Additionally, if the ISO offers TCCs for sale that are valid in sub-periods (e.g., on-peak or off-peak TCCs), this information must also be provided by the bidder.

Each bidder must submit such information to the ISO regarding the bidder's or LSE's creditworthiness as the ISO may require, along with a statement signed by the bidder, or LSE

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representing that the bidder or LSE is financially able and willing to pay for the TCCs for which it is bidding or converting. The aggregate value of the Bids submitted by any bidder into the Auction shall not exceed that bidder's ability to pay or the maximum value of Bids that bidder is permitted to place, as determined by the ISO (based on an analysis of that bidder's creditworthiness).

Each bidder must pay the market clearing price for each TCC it is awarded in the Auction.

9.4a Responsibilities of LSEs that Obtain Fixed Price TCCs Under Section 2A

Each LSE that obtains a Fixed Price TCC under Sections 2A of Part IV of this Attachment B must submit such information to the ISO regarding its creditworthiness as the ISO may require. Each such LSE must also: (i) comply with the applicable TCC conversion deadlines established by the ISO under Section 2A; and (ii) pay the price determined pursuant to Section 2A.

9.5 Selection of Winning Bids and Determination of the Market Clearing Price

The ISO shall determine the winning set of Bids in each round of the Auction as follows: (i) the ISO shall use an Optimal Power Flow program with the initial

assumptions identified by the ISO; (ii) the Optimal Power Flow shall use the same Reference Bus and system security Constraints assumptions as used by the ISO; (iii) the ISO shall select the set of Bids that maximizes the value of the TCCs awarded to the winning bidders; (iv) the aggregate market value of the TCCs awarded to each bidder shall not exceed that bidder's ability to pay, since each bidder is not allowed to Bid more than its ability to pay as determined by the ISO; and (v) the selected set of Bids must be simultaneously feasible as described in this Attachment.

In the Initial Auction, if the ISO elects to perform separate Auctions for on-peak and off-peak TCCs, the procedure used to select winning Bids in an on-peak Auction will not depend on winning Bids selected in an off-peak Auction; nor shall the procedure used to select winning Bids in an off-peak Auction depend on winning Bids selected in an on-peak Auction.

The market clearing price for each TCC in each round of Stages 1 and 2 of an Auction shall be determined using a similar algorithm to that used to determine LBMPs (refer to Attachment J to the ISO OATT). The market clearing price for each TCC shall be based on the lowest winning Bid made in that round for that TCC (or for other TCCs if injections and withdrawals corresponding to those TCCs would have the same impact on flows over congested Interfaces as injections and withdrawals corresponding to that TCC).

9.6 Billing

Charges for TCCs awarded in the Auction shall be billed upon completion of the Auction process. Charges for Fixed Price TCCs shall be billed in accordance with ISO Procedures.

9.7 Simultaneous Feasibility

The set of winning Bids selected in each round of Stage 1 shall correspond to a simultaneously feasible Power Flow, with the exception of the End-State Auction. In the End-State Auction, multiple Power Flows will be conducted in each round. One Power Flow will correspond to each of the Capability Periods for which TCCs are offered for Sale in that Auction. The set of winning Bids for any given round of an End-State Auction shall correspond to a simultaneously feasible Power Flow in each of the Capability Periods for which TCCs are available in the Auction. References in the remainder of this Section 9.7 to "Power Flow" shall, in the case of the End-State Auction, be understood as referring to the "Power Flow for each of the Capability Periods for which TCCs are available in the Auction."

The Power Flow must be able to accommodate in each Stage 1 round injections and withdrawals corresponding to each of the following TCCs and Grandfathered Rights: (i) TCCs not offered for sale in Stage 1, including Grandfathered TCCs, Original Residual TCCs, or any other existing TCCs whether purchased in a previous Auction or otherwise acquired that are valid for any part of the duration of any TCCs to be sold in Stage 1; (ii) Grandfathered Rights; (iii) TCCs awarded in earlier rounds of Stage 1 (if applicable); and (iv) TCCs awarded in the current round of Stage 1.

Each injection and withdrawal associated with TCCs and Grandfathered Rights will be multiplied by a scaling factor which apportions

the transmission capacity available in Stage 1 among each of the rounds in Stage 1. The use of this scaling factor is illustrated in the example in Section 9.9 of this Part IV of this Attachment B.

The set of winning Bids selected in each round of Stage 2 shall correspond to a simultaneously feasible Power Flow that can accommodate injections and withdrawals corresponding to the following: (i) TCCs not offered for sale in the current round of Stage 2 of the Auction which include Grandfathered TCCs, Original Residual TCCs, or any other existing TCCs whether purchased in a previous round or Auction or otherwise acquired that are valid for any part of the duration of any TCCs to be sold in Stage 2;

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(ii) Grandfathered Rights; and (iii) TCCs awarded in the current round of Stage 2.

A set of injections and withdrawals shall be judged simultaneously feasible if it would not cause any thermal, voltage, or stability violations within the NYCA for base case conditions or any monitored contingencies.

When performing Power Flows for the purpose of determining simultaneous feasibility, injections for TCCs that specify a Load Zone as the Point of Injection will be modeled as a set of injections at each Load bus in the Load Zone containing the Point of Injection (Generator buses will be used until the ISO's software can accommodate Load buses) equal to the product of the number of TCCs and the ratio of Load served at each bus to Load served in the Load Zone, based on the bus Loads used in calculating zonal LBMPs.

When performing the above Power Flows, withdrawals for TCCs that specify a Load Zone as the Point of Withdrawal will be modeled as a set of withdrawals at each Load bus in the Load Zone containing the Point of Withdrawal (Generator buses will be used until the ISO's software can accommodate Load buses) equal to the product of the number of TCCs and the ratio of the Load served at each bus to the total Load served in the Load Zone based on the ISO's estimate of the bus Loads used in calculating the Zonal LBMPs.

The Power Flow simulations shall take into consideration the effects of parallel flows on the transmission capacity of the NYS Transmission System when determining

which sets of injections and withdrawals are simultaneously feasible.

9.8 Information to be Made Available to Bidders

The ISO shall provide over the ISO's OASIS the expected non-simultaneous Total Transfer Capability for each Interface (as displayed on the OASIS).

The ISO shall make the following information available before each Initial, End-State, or Reconfiguration Auction:

(i) for each Generator bus, external bus and Load Zone for the previous ten (10) Capability Periods, if available, (a) the average Congestion Component of the LBMP, relative to the Reference Bus, and (b) the average Marginal Losses Component of the LBMP, relative to the Reference Bus;

(ii) for the previous two Capability Periods, (a) historical flow histograms for each of the closed Interfaces, and (b) historically, the number of hours that the most limiting facilities were physically constrained;

(iii) (a) Power Flow data to be used as the starting point for the Auction, including all assumptions, (b) assumptions made by the ISO relating to transmission maintenance outage schedules, (c) all limits associated with

transmission facilities, contingencies, thermal, voltage and stability to be monitored as Constraints in the Optimum Power Flow determination, and (d) the ISO summer and winter operating study results (non-simultaneous Interface Transfer Capabilities);

(iv) on its website no fewer than five (5) business days prior to the date on which a Centralized TCC Auction will begin, the number of megawatts of each set of ETCNL that each Transmission Owner has elected to convert to ETCNL TCCs for the Centralized TCC Auction and the RCRRs that each Transmission Owner has elected to convert to RCRR TCCs for the Centralized TCC Auction.

(v) between each round of bidding during the Auction, for all bidders bidding in subsequent rounds, the Market-Clearing Price, stated relative to the Reference Bus for each Generator bus, External bus and Load Zone; and

(vi) for each TCC awarded in each round, (a) the number of TCCs awarded, (b) the Point of Injection and Point of Withdrawal for that TCC, (c) the market clearing price for the TCC, and (d) the Auction participant awarded the TCC.

Items (i), (ii), (iii), and (v) above shall be made available separately for on-peak and off-peak periods, if on-peak and off-peak TCCs will be separately available for purchase in the upcoming Auction.

9.9 Auction Example

The following example is for purposes of illustration. For the purposes of this example, assume that the ISO has determined that one-fourth of the transmission capacity that has been offered for sale in Stage 1 will be available to support TCCs

purchased in each of four Stage 1 rounds.

The example illustrates a sub-auction of an Initial Auction. It can also be used to illustrate the operation of the End-State Auction, if one makes the additional assumption that all bidders have offered to purchase TCCs of the same length, and that all sellers have released TCCs of that same length.

Round 1a

In the first round of Stage 1 (round 1a), suppose that 100 TCCs from location X to location Y are offered for sale into Stage 1 of the Auction, and four (4) Bids have been received by the auctioneer for TCCs from location X to location Y, as follows:

Company A Bids for 50 TCCs @ $5.00/TCC

Company B Bids for 50 TCCs @ $4.00/TCC

Company C Bids for 20 TCCs @ $2.00/TCC

Company D Bids for 10 TCCs @ $1.00/TCC

For the sake of simplicity, assume in this example that 100 TCCs from location X to location Y will actually be allocated in Stage 1 of the Auction, although in practice, the number of TCCs that would be available between those locations in Stage 1 would depend on the number of TCCs that were allocated between other locations on the

transmission system, and could actually change from round to round within Stage 1.

Since one-fourth of the transmission capacity that has been offered for sale in Stage 1 is to be sold in round 1a, the number of TCCs specified in each of the Bids above is multiplied by a scaling factor of four:

Company	Scaled Number of TCCs Company Offers to Purchase	Bid Price
A	200	$5/TCC
B	200	$4/TCC
C	80	$2/TCC
D	40	$1/TCC

Since 100 TCCs are available from location X to location Y, Company A would be the only company that would receive TCCs in the current round, because its Bid is the highest Bid, in $/TCC terms, and its scaled Bid for 200 TCCs exceeds the 100 TCCs available. Company A would be the winning bidder, and the market clearing price for TCCs in this round would be Company A's Bid of $5/TCC.

However, Company A would not actually be awarded 100 TCCs. Each winning Bid in each Stage 1 round will be divided by the scaling factor used for that round to determine the number of TCCs that would be awarded to each winning bidder. Thus, Company A's winning Bid for 100 scaled TCCs would be converted into an actual

award of 100 TCCs / 4 = 25 TCCs. Company A would be awarded 25 TCCs at the conclusion of round la, at a price of $5/TCC.

Round 1b

Three-fourths of the TCCs that have been offered for sale in Stage 1 remain available after round 1a, so if one-fourth of all the TCCs that have been offered for sale in Stage 1 and to be sold in the second round of Stage 1 (round 1b), then one-third of the TCCs that have been offered for sale in Stage 1 remaining after round 1a must be sold in round 1b (since 1/3 x 3/4 = 1/4). Consequently, the scaling factor for round 1b would be three. We have assumed that 75 TCCs will now be available from location X-to location Y in round 1b, once the 25 TCCs awarded to Company A in round 1a have been taken into account. Bids (including scaled Bids) into round 1b for TCCs between these locations are given below.

Company	Number of TCCs Company Offers to Purchase	Scaled Number of TCCs Company Offers to Purchase	Bid Price
A	30	90	$6/TCC
B	50	150	$5/TCC
C	20	60	$3/TCC
D	10	30	$2/TCC

Since 75 TCCs are available from location X to location Y, Company A would again be the only company that would receive TCCs in this round, because its Bid is the highest Bid, in $/TCC terms, and its scaled Bid for 90 TCCs exceeds the 75 TCCs available. Company A would be the winning bidder, and the Market Clearing Price for TCCs in this round would be Company A's Bid, which has increased to $6/TCC in this round.

However, Company A's winning Bid for 75 scaled TCCs would be converted into an actual award of 75 TCCs / 3 = 25 TCCs. Company A would be awarded 25 TCCs at the conclusion of round 1b, at a price of $6/TCC.

Round 1c

Half of the TCCs that have been offered for sale in Stage 1 remain available after rounds 1a and 1b, so half of the remaining TCCs that have been offered for sale in Stage 1 must be sold in the third round of Stage 1 (round 1c), making the scaling factor for round 1c equal to two. We have assumed that 50 TCCs will now be available from location X to location Y in round 1c, once the 50 TCCs awarded to Company A in rounds 1a and 1b have been taken into account. Bids (including scaled bids) into round 1c for TCCs between these locations are given below.

Company	Number of TCCs Company Offers to Purchase	Scaled Number of TCCs Company Offers to Purchase	Bid Price
A	10	20	$5/TCC
B	40	80	$6/TCC
C	10	40	$2/TCC
D	10	20	$7/TCC

Since 50 TCCs are available between these locations, Company D, which now has the highest Bid, would be awarded 20 scaled TCCs, and Company B, which now has the second-highest Bid, would receive the next 30 scaled TCCs. The Market Clearing Price for TCCs in this round would be $6/TCC, Company B's Bid.

However, the winning bids would be converted into actual awards of 20 TCCs / 2 = 10 TCCs to Company D, and 30 TCCs / 2 = 15 TCCs to Company B, each at a price of $6/TCC.

Round 1d

All of the TCCs that have been offered for sale in Stage 1 that remain available after rounds 1a, 1b and 1c will be sold in the fourth round of Stage 1 (round 1d), so the scaling factor for round 1d would be one. In other words, there would be no scaling in round 1d. We have assumed that 25 TCCs will now be available from location X to

location Y in round 1b, once the 75 TCCs awarded in rounds 1a, 1b and 1c have been taken into account. Bids into round 1d for TCCs between these locations are given below. (Note that Companies A and D have dropped out of the Auction at this point and Company E has entered the Auction, illustrating that there is no requirement for bidders in earlier rounds to Bid into later rounds or for bidders in later rounds to Bid into earlier rounds.)

Company	Number of TCCs Company Offers to Purchase	Bid Price
B	15	$5/TCC
C	20	$2/TCC
E	20	$10/TCC

Since 25 TCCs are available between these locations, Company E, which now has the highest Bid, would be awarded 20 TCCs, and Company B, which has the second-highest Bid, would receive the last 5 TCCs. The Market Clearing Price for TCCs in this round would be $5/TCC, Company B's Bid.

Stage 1 Summary

TCCs awarded from location X to location Y in Stage 1, and the prices paid for

those TCCs, are as follows:

Company	Round	TCCs Awarded	Price
A	1a	25	$5/TCC
A	1b	25	$6/TCC
B	1c	15	$6/TCC
B	1d	5	$5/TCC
D	1c	10	$6/TCC
E	1d	20	$5/TCC

In this example, all revenues from this Auction would be paid to the holders of the 100 Original Residual TCCs from location X to location Y that released those TCCs for sale into Stage 1 of the Auction.

Stage 2

In the first round of Stage 2 (round 2a), assume that Company F, which holds 50 TCCs from location X to location Y (that it received as a result of a grandfathered transmission agreement) releases those TCCs for sale into the Auction. In addition, suppose that Company E releases the 20 TCCs from location X to location Y that it purchased in Stage 1 for sale into round 2a of the Auction, so that a total of 70 TCCs from location X to location Y have been released for sale into round 2a. Although it is

possible that more or fewer than 70 TCCs from location X to location Y will actually be sold, depending on Bids made for TCCs between other locations, assume for purposes of the example that only 70 TCCs between these two locations are actually sold in round 2a. Bids into round 2a are as follows:

Company	Number of TCCs Company Offers to Purchase	Bid Price
B	40	$5/TCC
C	40	$4/TCC
D	40	$9/TCC

Company D, the highest bidder, would be awarded 40 TCCs, and Company B, the second highest bidder, would be awarded the remaining 30 TCCs. The market clearing price in round 2a would be Company B's Bid, $5/TCC, so the winning bidders in round 2a would pay $5/TCC for the TCCs they are awarded in round 2a. Companies E and F would be paid $5/TCC for each TCC from location X to location Y that they released for sale into the Auction.

Subsequent rounds in Stage 2 would proceed in the same manner as round 2a.

10.0 Secondary Market for TCCs

After the conclusion of each Auction, all Primary Holders may sell their TCCs in the Secondary Markets, unless otherwise provided in this Part IV of this Attachment B. However, the ISO shall make all Settlements with Primary Holders. Buyers in a Secondary Market that elect to become Primary Holders must meet the eligibility criteria in Section 9.0 of this Part IV of this Attachment B.

11.0 Emergency TCC Auction Remedial Authority for the 2004 Summer Capability Period

During the 2004 Summer Capability Period only, the ISO may take the following actions to remedy its oversale in TCC auctions, during the period between the Spring 2004 Centralized TCC Auction and the end of the 2004 Summer Capability Period, of 912 MW of transmission capacity between the Indian Point 3 bus and Load Zone J (New York City) ("Oversales"):

(i) solicit voluntary offers to sell TCCs to the ISO solely for immediate retirement, and voluntary offers to purchase counterflow TCCs, which the ISO may create and sell pursuant to this Section 11.0 only, from Market Participants, and to accept those offers that it determines, on an optimized, least-cost basis, will extinguish as much of the infeasibility attributable to the Oversales as is economically practicable;

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(ii) use net excess TCC auction revenues, *i.e.,* TCC auction revenues currently held by Transmission Owners that are attributable to the Oversales, minus Congestion Rent Shortfalls assigned to those Transmission Owners through July 11, 2004, to fund the extinguishments described in (i) above;

(iii) use remaining net excess TCC auction revenues to the extent that any remain after their use in (ii) above, to compensate remaining Transmission Owners for the amount by which Congestion Rent Shortfalls attributable to the Oversales that they have funded from the start of the 2004 Summer Capability Period through and including July 11, 2004 exceed revenues paid to that Transmission Owner as a result of the Oversale in the Spring 2004 Centralized TCC Auction;

(iv) use net excess TCC auction revenues, to the extent that any remain after their use in (iii) above, to fund any remaining Congestion Rent Shortfalls that are attributable to the Oversales and that occur in the Summer 2004 Capability period; and

(v) to the extent that net excess TCC auction revenues are insufficient to make the payments described in (ii), (iii), and (iv) above, to draw on up to $ 27 million from the ISO's Working Capital Fund, which is described in Attachment V to the ISO OATT, to make such payments.

The ISO shall not be required to purchase TCCs in the Reconfiguration Auctions conducted for the remaining months in the Summer 2004 Capability Period.

12.0 Historic Period Refunds and Payments for Current Shortfalls Under the July 13, 2004 TCC Settlement Agreement

The ISO shall calculate "Historic Shortfalls" in the manner described in Article III of the Settlement Agreement in Docket Nos. EL04-110, EL04-113, EL04-115 and ER04-983 that was approved by the Commission on July 13, 2004. It shall refund these Historic Shortfalls to the Transmission Owners using the procedures and funding mechanisms, including the rules governing the replenishment of the ISO Working Capital Fund, that are set forth in the Settlement Agreement. The Shortfall Reimbursement Surcharge referenced in the Settlement Agreement is established in Section 2.3 of Part IV of Attachment B to the Services Tariff and Section 2.3 of Attachment N to the OATT.

To the extent necessary, the ISO may also use funds collected through the Shortfall Reimbursement Surcharge to make payments for "Current Shortfalls" pursuant to Article II.B of the Settlement Agreement.

Attachment B
Table 1

TABLE 1- ETCNL Data for Converting ETCNL to ETCNL TCCs

	Holder of ETCNL	Name of Set of ETCNL	Point of Injection	Point of Withdrawal	Transmission Capacity (MW)
1.	Con Edison	Native Load-Bowline	Bowline	Millwood Zone	33
2.	Con Edison	Native Load-Bowline	Bowline	Dunwoodie Zone	184
3.	Con Edison	Native Load-Bowline	Bowline	NYC Zone	584
4.	Con Edison	Native Load- HQ Capacity Purchase	Pleasant Valley 345kV	Millwood Zone	16/8
5.	Con Edison	Native Load- HQ Capacity Purchase	Pleasant Valley 345kV	Dunwoodie Zone	92/48
6.	Con Edison	Native Load- HQ Capacity Purchase	Pleasant Valley 345kV	NYCZone	292/152
7.	Con Edison	Native Load - Gilboa	Pleasant Valley 345kV	Millwood Zone	5
8.	Con Edison	Native Load - Gilboa	Pleasant Valley 345kV	Dunwoodie Zone	29
9.	Con Edison	Native Load - Gilboa	Pleasant Valley 345kV	NYC Zone	91
10.	Con Edison	Native Load - Roseton	Roseton-#1	Millwood Zone	19
11.	Con Edison	Native Load - Roseton	Roseton-#1	Dunwoodie Zone	110
12.	Con Edison	Native Load - Roseton	Roseton-#1	NYC Zone	351
13.	Con Edison	Native Load - Corinth	Pleasant Valley 345kV	Millwood Zone	5
14.	Con Edison	Native Load - Corinth	Pleasant Valley 345kV	Dunwoodie Zone	31
15.	Con Edison	Native Load - Corinth	Pleasant Valley 345kV	NYC Zone	98
16.	Con Edison	Native Load - Sithe	Pleasant Valley 345kV	Millwood Zone	34
17.	Con Edison	Native Load - Sithe	Pleasant Valley 345kV	Dunwoodie Zone	192
18.	Con Edison	Native Load - Sithe	Pleasant Valley 345kV	NYC Zone	611
19.	Con Edison	Native Load - Selkirk	Pleasant Valley 345kV	Millwood Zone	11
20.	Con Edison	Native Load - Selkirk	Pleasant Valley 345kV	Dunwoodie Zone	61

Attachment B
Table 1 (continued)

TABLE 1- ETCNL Data for Converting ETCNL to ETCNL TCCs

	Holder of ETCNL	Name of Set of ETCNL	Point of Injection	Point of Withdrawal	Transmission Capacity (MW)[1]
21.	Con Edison	Native Load - Selkirk	Pleasant Valley 345kV	NYC Zone	193
22.	Con Edison	Native Load - IP2	Indian Pt 2	Dunwoodie Zone	214
23.	Con Edison	Native Load - IP2	Indian Pt 2	NYC Zone	679
24.	Con Edison	Native Load - IP3	Indian Pt 3	Dunwoodie Zone	26
25.	Con Edison	Native Load - IP3	Indian Pt 3	NYC Zone	82
26.	Con Edison	Native Load - IP Gas Turbine	Indian Pt.-GT Buchanan	Dunwoodie Zone	12
27.	Con Edison	Native Load - IP Gas Turbine	Indian Pt.-GT Buchanan	NYC Zone	36
28.	NMPC	Native Load - NMP1	Nine Mile Pt. #1	Capital Zone	610
29.	NMPC	Native Load - NMP2	Nine Mile Pt. #2	Capital Zone	460
30.	NMPC	Native Load - Hydro North	Colton Hydro	Capital Zone	110
31.	NYSEG	Native Load - Homer City	PJM Proxy Bus	Central Zone	863
32.	NYSEG	Native Load - Homer City	PJM Proxy Bus	West Zone	100
33.	NYSEG	Native Load - Allegheny 8&9	PJM Proxy Bus	Central Zone	37
34.	NYSEG	Native Load - BCLP	PJM Proxy Bus	Central Zone	80
35.	NYSEG	Native Load - LEA (Lockport)	Gardenville 115kV	Central Zone	100
36.	NYSEG	Native Load - Gilboa	Gilboa	Capital Zone	99

Notes: 1. Where two different amounts of transmission Capacity are separated by a "/", the first number shall indicate the transmission Capacity available for conversion to ETCNL TCCs in a Centralized TCC Auction held for a Summer Capability Period, and the second number shall indicate the transmission Capacity available for conversion to ETCNL TCCs in a Centralized TCC Auction held for a Winter Capability Period.

V. CONGESTION SETTLEMENTS RELATED TO THE DAY-AHEAD MARKET AND TCC AUCTION SETTLEMENTS

SECTION 1. OVERVIEW AND DEFINITIONS

Section 1.1. Overview

This Part V of this Attachment B describes the Congestion settlements related to the Day-Ahead Market and the settlements related to Centralized TCC Auctions and Reconfiguration Auctions. Congestion Rent settlements for Real-Time Market Energy Transactions or Bilateral Transactions scheduled in the Real-Time Market are not addressed in this Part V of this Attachment B.

Section 2 addresses the Congestion settlements related to each hour of the Day-Ahead Market. These settlements include, as applicable pursuant to this Part V of this Attachment B, charges or payments for Congestion Rents for Energy Transactions in the Day-Ahead Market and for Bilateral Transactions scheduled in the Day-Ahead Market, and settlements with Primary Holders of TCCs. In addition, these settlements include, as applicable pursuant to this Part V of this Attachment B, O/R-t-S Congestion Rent Shortfall Charges, U/D Congestion Rent Shortfall Charges, O/R-t-S Congestion Rent Surplus Payments, and U/D Congestion Rent Surplus Payments. The ISO shall allocate to Transmission Owners the net of all of these settlements as Net Congestion Rents as described in this Part V of this Attachment B.

Section 3 addresses the settlements in each round of each Centralized TCC Auction and in each Reconfiguration Auction. These settlements include, as applicable pursuant to this Part V of this Attachment B, charges or payments to purchasers of TCCs, charges or payments to Primary Holders selling TCCs, payments to Transmission Owners in a Centralized

TCC Auction for ETCNL released into the Centralized TCC Auction, and payments to Transmission Owners for Original Residual TCCs that are released into the Centralized TCC Auction. In addition, these settlements include, as applicable pursuant to this Part V of this Attachment B, O/R-t-S Auction Revenue Shortfall Charges, U/D Auction Revenue Shortfall Charges, O/R-t-S Auction Revenue Surplus Payments, and U/D Auction Revenue Surplus Payments. The ISO shall allocate to Transmission Owners the net of all of these settlements as Net Auction Revenue as described in this Part V of this Attachment B.

Provisions of this Part V of this Attachment B applicable to a transmission facility outage or return-to-service shall not apply to a transmission facility derating or uprating. Charges and payments under this Part V of this Attachment B shall be made to a Transmission Owner for a transmission facility derating or uprating only as specified in Sections 2.4.3 and 3.6.3.

Section 1.2. Defined Terms Used in Part V of this Attachment B

Capitalized terms used in this Part V of this Attachment B shall have the meaning specified below in this Section 1.2, and capitalized terms used in this Part V of this Attachment B but not defined below shall have the meaning given to them in Section 2.0 of the Services Tariff:

Actual Qualifying Auction Derating: As defined in Section 3.6.3.1.

Actual Qualifying Auction Outage: As defined in Section 3.6.2.1.

Actual Qualifying Auction Return-to-Service: As defined in Section 3.6.2.1.

Actual Qualifying Auction Uprating: As defined in Section 3.6.3.1.

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Actual Qualifying DAM Derating: As defined in Section 2.4.3.1.

Actual Qualifying DAM Outage: As defined in Section 2.4.2.1.

Actual Qualifying DAM Return-to-Service: As defined in Section 2.4.2.1.

Actual Qualifying DAM Uprating: As defined in Section 2.4.3.1.

Auction Status Change: Any of the following: Qualifying Auction Outage, Qualifying Auction Derating, Qualifying Auction Return-to-Service, or Qualifying Auction Uprating.

Centralized TCC Auction Interface Uprate/Derate Table: The interface derate table posted on the ISO website prior to a given Centralized TCC Auction specifying the impact on transfer limits of Qualifying DAM Outages and Qualifying DAM Returns-to-Service for a sub-auction of a Centralized TCC Auction.

DAM Constraint Residual: The dollar value associated with a Constraint that is binding for an hour of the Day-Ahead Market, which is calculated pursuant to Section 2.4.1.

DAM Status Change: Any of the following: Qualifying DAM Outage, Qualifying DAM Derating, Qualifying DAM Return-to-Service, or Qualifying DAM Uprating.

DCR Allocation Threshold: Five thousand dollars ($5,000), except that this amount shall be reduced for any given month to the extent necessary so that the sum of all DAM Constraint Residuals for the month (for all binding constraints and for all hours of the month) that are less than the DCR Allocation Threshold is not greater than either two hundred and fifty thousand dollars ($250,000) or five percent (5%) of the sum of all DAM Constraint Residuals for the month (for all binding constraints and for all hours of the month) that would have been calculated if the DCR Allocation Threshold were set equal to zero.

Deemed Qualifying Auction Derating: As defined in Section 3.6.3.1.

Deemed Qualifying Auction Outage: As defined in Section 3.6.2.1.

Deemed Qualifying Auction Return-to-Service: As defined in Section 3.6.2.1.

Deemed Qualifying Auction Uprating: As defined in Section 3.6.3.1.

Deemed ISO-Directed Auction Status Change: Any of the following: (1) an Actual Qualifying Auction Return-to-Service for a Reconfiguration Auction that occurs for a transmission facility that, in the last 6-month sub-auction held for TCCs valid during the month corresponding to the relevant Reconfiguration Auction, was a Qualifying Auction Outage that qualified as an ISO-Directed Auction Status Change; (2) an Actual Qualifying Auction Uprating for a Reconfiguration Auction that occurs as a result of an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service of a transmission facility that, in the last 6-month sub-auction held for TCCs valid during the month corresponding to the relevant Reconfiguration Auction, qualified as a Qualifying Auction Outage or Qualifying Auction Return-to-Service that was an ISO-Directed Auction Status Change; or (3) an Actual Qualifying Auction Derating for a Reconfiguration Auction that occurs as a result of an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service of a transmission facility that, in the last 6-month sub-auction held for TCCs valid during the month corresponding to the relevant Reconfiguration Auction, qualified as an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service that was an ISO-Directed Auction Status Change.

Deemed ISO-Directed DAM Status Change: Any of the following: (1) an Actual Qualifying DAM Return-to-Service for an hour of the Day-Ahead Market that occurs for a transmission facility that, in the last Reconfiguration Auction held for TCCs valid for the relevant hour or the last 6-month sub-auction of a Centralized TCC Auction held for TCCs valid for the relevant hour, was an Actual Qualifying Auction Outage that qualified as an ISO-Directed Auction Status Change; (2) an Actual Qualifying DAM Uprating for an hour of the Day-Ahead Market that occurs for a transmission facility that, in the last Reconfiguration Auction held for TCCs valid for the relevant hour or the last 6-month sub-auction of a Centralized TCC Auction held for TCCs valid for the relevant hour, qualified as an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service that was an ISO-Directed Auction Status Change; or (3) an Actual Qualifying DAM Derating for an hour of the Day-Ahead Market that occurs for a

transmission facility that, in the last Reconfiguration Auction held for TCCs valid for the relevant hour or the last 6-month sub-auction of a Centralized TCC Auction held for TCCs valid for the relevant hour, qualified as an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service that was an ISO-Directed Auction Status Change. (The terms "Actual Qualifying Auction Outage" and "ISO-Directed Auction Status Change" shall, if not defined in this Section 1.2, have the meaning given in the ISO's March 17, 2006, filing.)

Deemed Qualifying DAM Derating: As defined in Section 2.4.3.1.

Deemed Qualifying DAM Outage: As defined in Section 2.4.2.1.

Deemed Qualifying DAM Return-to-Service: As defined in Section 2.4.2.1.

Deemed Qualifying DAM Uprating: As defined in Section 2.4.3.1.

ISO-Directed Auction Status Change: Either of the following: (1) an Actual Qualifying Auction Outage for a Reconfiguration Auction or a round of a Centralized TCC Auction that is directed by the ISO or results from an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service directed by the ISO; or (2) an Actual Qualifying Auction Derating or an Actual Qualifying Auction Uprating for a Reconfiguration Auction or a round of a Centralized TCC Auction that results from an Actual Qualifying Auction Outage directed by the ISO.

ISO-Directed DAM Status Change: Either of the following: (1) an Actual Qualifying DAM Outage for an hour of the Day-Ahead Market that is directed by the ISO or results from an Actual Qualifying DAM Outage or an Actual Qualifying DAM Return-to-Service directed by the ISO; or (2) an Actual Qualifying DAM Derating or an Actual Qualifying DAM Uprating for an hour of the Day-Ahead Market that results from an Actual Qualifying DAM Outage directed by the ISO.

Normally Out-of-Service Equipment: Transmission facilities that are normally operated as out-of-service by mutual agreement of the transmission facility owner and the ISO and that appear on the list of such equipment posted on the ISO website.

Outage/Return-to-Service Auction Constraint Residual ("O/R-t-S Auction Constraint Residual"): The portion of an Auction Constraint Residual that is deemed to be attributable to Qualifying Auction Outages or Qualifying Auction Returns-to-Service, which O/R-t-S Auction Constraint Residual shall be calculated pursuant to Section 3.6.1.

Outage/Return-to-Service Auction Revenue Shortfall Charge ("O/R-t-S Auction Revenue Shortfall Charge"): A charge to a Transmission Owner that is created as a result of the allocation of an O/R-t-S Auction Constraint Residual pursuant to Section 3.6.2.

Outage/Return-to-Service Auction Revenue Surplus Payment ("O/R-t-S Auction Revenue Surplus Payment"): A payment to a Transmission Owner that is created as a result of the allocation of an O/R-t-S Auction Constraint Residual pursuant to Section 3.6.2.

Outage/Return-to-Service Congestion Rent Shortfall Charge ("O/R-t-S Congestion Rent Shortfall Charge"): A charge to a Transmission Owner that is created as a result of the allocation of an O/R-t-S DAM Constraint Residual pursuant to Section 2.4.2.

Outage/Return-to-Service Congestion Rent Surplus Payment ("O/R-t-S Congestion Rent Surplus Payment"): A payment to a Transmission Owner that is created as a result of the allocation of an O/R-t-S DAM Constraint Residual pursuant to Section 2.4.2.

Outage/Return-to-Service DAM Constraint Residual ("O/R-t-S DAM Constraint Residual"): The portion of a DAM Constraint Residual that is deemed to be attributable to Qualifying DAM Outages or Qualifying DAM Returns-to-Service, which O/R-t-S DAM Constraint Residual shall be calculated pursuant to Section 2.4.1.

Qualifying Auction Derating: As defined in Section 3.6.3.1.

Qualifying Auction Outage: As defined in Section 3.6.2.1.

Qualifying Auction Return-to-Service: As defined in Section 3.6.2.1.

Qualifying Auction Uprating: As defined in Section 3.6.3.1.

Qualifying DAM Derating: As defined in Section 2.4.3.1.

Qualifying DAM Outage: As defined in Section 2.4.2.1.

Qualifying DAM Return-to-Service: As defined in Section 2.4.2.1.

Qualifying DAM Uprating: As defined in Section 2.4.3.1.

Reconfiguration Auction Interface Uprate/Derate Table: The interface derate table posted on the ISO website prior to a Reconfiguration Auction specifying the impact on transfer limits of Qualifying DAM Outages and Qualifying DAM Returns-to-Service for the Reconfiguration Auction.

Uprate/Derate Auction Constraint Residual ("U/D Auction Constraint Residual"): The portion of an Auction Constraint Residual that is deemed to be attributable to Qualifying Auction Deratings or Qualifying Auction Upratings, which U/D Auction Constraint Residual shall be calculated pursuant to Section 3.6.1.

Uprate/Derate Auction Revenue Shortfall Charge ("U/D Auction Revenue Shortfall Charge"): A charge to a Transmission Owner that is created as a result of the allocation of a U/D Auction Constraint Residual pursuant to Section 3.6.3.

Uprate/Derate Auction Revenue Surplus Payment ("U/D Auction Revenue Surplus Payment"): A payment to a Transmission Owner that is created as a result of the allocation of a U/D Auction Constraint Residual pursuant to Section 3.6.3.

Uprate/Derate Congestion Rent Shortfall Charge ("U/D Congestion Rent Shortfall Charge"): A charge to a Transmission Owner that is created as a result of the allocation of a U/D DAM Constraint Residual pursuant to Section 2.4.3.

Uprate/Derate Congestion Rent Surplus Payment ("U/D Congestion Rent Surplus Payment"): A payment to a Transmission Owner that is created as a result of the allocation of a U/D DAM Constraint Residual pursuant to Section 2.4.3.

Uprate/Derate DAM Constraint Residual ("U/D DAM Constraint Residual"): The portion of a DAM Constraint Residual that is deemed to be attributable to a Qualifying DAM Derating or a Qualifying DAM Uprating, which U/D DAM Constraint Residual shall be calculated pursuant to Section 2.4.1.

For purposes of this Part V of this Attachment B, the term "transmission facility" shall mean any transmission line, phase angle regulator, transformer, series reactor, circuit breaker, or other type of transmission equipment.

All references in this Part V of this Attachment B to Sections shall be construed to be references to a section of this Part V of this Attachment B.

Section 2. Congestion Settlements Related to the Day-Ahead Market

Section 2.1. Overview of Congestion Settlements Related to the Day-Ahead Market; Calculation of Net Congestion Rents

Overview of DAM Related Congestion Settlements. For each hour *h* of the Day-Ahead Market, the ISO shall settle all Congestion settlements related to the Day-Ahead Market. These Congestion settlements include, as applicable pursuant to the provisions of this Part V of this

Attachment B: (i) Congestion Rent charges or payments for Energy Transactions in the Day-Ahead Market and Bilateral Transactions scheduled in the Day-Ahead Market; (ii) Congestion payments or charges to Primary Holders of TCCs; (iii) O/R-t-S Congestion Rent Shortfall Charges and U/D Congestion Rent Shortfall Charges; and (iv) O/R-t-S Congestion Rent Surplus Payments and U/D Congestion Rent Surplus Payments. Each of these settlements is represented by a variable in Formula B-1.

Calculation of Net Congestion Rents for an Hour. In each hour *h* of the Day-Ahead Market, the ISO shall calculate Net Congestion Rents pursuant to Formula B-1.

Formula B-1

$$\text{NetCongestionRents}_h = \begin{pmatrix} \text{Congestion Rents}_h \\ - \text{ TCC Payments}_h \\ - \text{ O/R-t-S\&U/D CRSC\&CRSP}_h \end{pmatrix}$$

Where,

$\text{Net Congestion Rents}_h$	=	The total Net Congestion Rents for hour *h* of the Day-Ahead Market
h	=	An hour of the Day-Ahead Market
$\text{Congestion Rents}_h$	=	The sum of Congestion Rents for (i) Energy Transactions scheduled in hour *h* of the Day-Ahead Market, and (ii) Bilateral Transactions scheduled in hour *h* of the Day-Ahead Market, each as calculated pursuant to Section 2.2

TCC Payments$_h$	=	The sum for all TCCs of all payments and charges made pursuant to Section 2.3 to Primary Holders of TCCs in hour *h*
O/R-t-S&U/D CRSC&CRSP$_h$	=	The sum of all O/R-t-S Congestion Rent Shortfall Charges (O/R-t-S CRSC$_{a,t,h}$), U/D Congestion Rent Shortfall Charges (U/D CRSC$_{a,t,h}$), O/R-t-S Congestion Rent Surplus Payments (O/R-t-S CRSP$_{a,t,h}$), and U/D Congestion Rent Surplus Payments (U/D CRSP$_{a,t,h}$) for all Transmission Owners *t* (which sum is calculated for each Transmission Owner as NetDAMAllocations$_{t,h}$ pursuant to Formula B-14), reduced by any zeroing out of such charges or payments pursuant to Section 2.4.5

The ISO shall allocate the Net Congestion Rents calculated in each hour to Transmission Owners pursuant to Section 2.5.

Section 2.2. Congestion Rents Charged in the Day-Ahead Market

In each hour of the Day-Ahead Market, the ISO shall collect or pay Congestion Rents through Energy Transactions in the Day-Ahead Market and through Bilateral Transactions scheduled in the Day-Ahead Market.

Day-Ahead Market Energy Transactions. The ISO shall charge or pay Congestion Rents as part of the Congestion Component of the LBMP applicable to Energy injections and withdrawals scheduled in the Day-Ahead Market, as described in Part I of this Attachment B. The total Congestion Rents for all Energy Transactions scheduled in the Day-Ahead Market in hour *h* are calculated pursuant to Formula B-2.

Formula B-2

$$\sum_{W} MWh_{W,h} * CCPOW_{W,h} - \sum_{I} MWh_{I,h} * CCPOI_{I,h}$$

Where,

$MWh_{W,h}$ = Energy, in MWh, scheduled to be withdrawn in hour *h* pursuant to Day-Ahead Market schedule *W*

$CCPOW_{W,h}$ = Congestion Component, in $/MWh, at the Point of Withdrawal for Energy withdrawn in hour *h* pursuant to schedule *W*

$MWh_{I,h}$ = Energy, in MWh, scheduled to be injected in hour *h* pursuant to Day-Ahead Market schedule *I*

$CCPOI_{I,h}$ = Congestion Component, in $/MWh, at the Point of Injection for Energy injected in hour *h* pursuant to schedule *I*.

Bilateral Transactions. The ISO shall charge or pay Congestion Rents as part of the Transmission Usage Charge applied to Bilateral Transaction *B* scheduled in the Day-Ahead Market, as described in Section 7B.2 of the OATT. Total Congestion Rents for all Bilateral Transactions scheduled in the Day-Ahead Market in hour *h* are calculated pursuant to Formula B-3.

Formula B-3

$$\sum_{B} MWh_{B,h} * CCTUC_{B,h}$$

Where,

$MWh_{B,h}$ = Energy, in MWh, of Bilateral Transaction *B* scheduled in the Day-Ahead Market in hour *h*

$CCTUC_{B,h}$ = Congestion Component of the TUC, in $/MWh, for scheduled Bilateral Transaction *B*, in hour *h*, which is equal to $CCPOW_{B,h}$ - $CCPOI_{B,h.}$

$CCPOW_{B,h}$ = Congestion Component, in $/MWh, at the Point of Withdrawal for Energy withdrawn in hour *h* pursuant to Bilateral Transaction *B*

$CCPOI_{B,h}$ = Congestion Component, in $/MWh, at the Point of Injection for Energy injected in hour *h* pursuant to Bilateral Transaction *B*.

Section 2.3. Congestion Payments Made To Primary Holders

For each hour *h* of the Day-Ahead Market, the ISO shall charge or pay Congestion payments to the Primary Holders, as follows:

Formula B-4

Congestion Payment ($/hr) = (CCPOW – CCPOI) * TCCMW

Where,

CCPOW = Congestion Component ($/MWh) at the Point of Withdrawal (POW)

CCPOI = Congestion Component ($/MWh) at the Point of Injection (POI)

TCCMW = The number of TCCs in MW from POI to POW.

(See Part I of this Attachment B for the calculation of the Congestion Component of the LBMP price at either the POI or the POW.)

The ISO shall pay Primary Holders for the Congestion payments from revenues collected from: (i) Congestion Rents, (ii) O/R-t-S Congestion Rent Shortfall Charges and U/D Congestion Rent Shortfall Charges, and (iii) Net Congestion Rents in accordance with Section 2.5.

The ISO shall assess a "Shortfall Reimbursement Surcharge" each month on monthly net positive Congestion payments to Primary Holders of TCCs sold in or after the Autumn 2004 Centralized TCC Auction. The Shortfall Reimbursement Surcharge shall be 0.5% of Congestion payments associated with TCCs that have a Point of Withdrawal outside of Load Zone J and 2.5% of Congestion payments associated with TCCs that have a Point of Withdrawal at, or inside of, Load Zone J.

The Shortfall Reimbursement Surcharge shall not be assessed on Congestion payments to Primary Holders of TCCs that produce net negative Congestion payments, *i.e.,* that oblige the Primary Holder to make payments, in a given month, on Congestion payments to Primary Holders of Grandfathered TCCs, or on Congestion payments to Primary Holders of ETCNL TCCs or RCRR TCCs. The Shortfall Reimbursement Surcharge also shall not be assessed on Congestion payments to Primary Holders of TCCs sold before the Autumn 2004 Centralized TCC Auction, except to the extent that such TCCs are unbundled or reconfigured at the request of a Primary Holder, and sold, in or after that auction, in which case the Congestion payments associated with them shall be subject to the Shortfall Reimbursement Surcharge.

The ISO shall cease to impose the Shortfall Reimbursement Surcharge when it has collected sufficient funds to: (i) pay refunds for all of the "Historic Shortfall" plus interest pursuant to Article III of the July 13, 2004 Settlement Agreement that was approved by the Commission in Docket Nos. EL04-110, EL04-113, EL04-115, and ER04-983; and (ii) replenished the ISO Working Capital Fund pursuant to Article IV of that Settlement Agreement.

Section 2.4. Charges and Payments to Transmission Owners for DAM Outages and Returns-to-Service

The ISO shall charge O/R-t-S Congestion Rent Shortfall Charges and U/D Congestion Rent Shortfall Charges and pay O/R-t-S Congestion Rent Surplus Payments and U/D Congestion Rent Surplus Payments pursuant to this Section 2.4. To do so, the ISO shall calculate the DAM Constraint Residual for each binding constraint for each hour of the Day-Ahead Market and then determine the amount of each DAM Constraint Residual that is O/R-t-S DAM Constraint Residual and the amount that is U/D DAM Constraint Residual, as specified in Section 2.4.1. The ISO shall use the O/R-t-S DAM Constraint Residual to allocate O/R-t-S Congestion Rent Shortfall Charges and O/R-t-S Congestion Rent Surplus Payments to Transmission Owners pursuant to Sections 2.4.2 and 2.4.4, each of which shall be subject to being reduced to zero pursuant to Section 2.4.5. The ISO shall use the U/D DAM Constraint Residual to allocate U/D Congestion Rent Shortfall Charges and U/D Congestion Rent Surplus Payments to Transmission Owners pursuant to Sections 2.4.3 and 2.4.4, each of which shall be subject to being reduced to zero pursuant to Section 2.4.5.

Section 2.4.1. Measuring the Impact of DAM Outages and Returns-to-Service: Calculation of DAM Constraint Residuals and Division of DAM Constraint Residuals into O/R-t-S DAM Constraint Residuals and U/D DAM Constraint Residuals

For each hour *h* of the Day-Ahead Market, the ISO shall identify all constraints that are binding in the Power Flow solution for the final schedules for hour *h* of the Day-Ahead Market. For each binding constraint *a* identified for each hour *h*, the ISO shall calculate the DAM Constraint Residual, $DCR_{a,h}$, using Formula B-5; *provided, however*, where $DCR_{a,h}$ calculated using Formula B-5 is not greater than the DCR Allocation Threshold or less than the negative of the DCR Allocation Threshold, then $DCR_{a,h}$ shall be set equal to zero.

Formula B-5

$$DCR_{a,h} = \text{Shadow Price}_{a,h} * \left[\begin{array}{l} \left(FLOW_{a,h,DAM} - FLOW_{a,h,TCCAuction} \right) \\ + \left(\text{UprateDerate}_{a,h} * \text{SCUCSignChange}_{a,h} \right) \\ + \left(\text{UnsoldCapacity}_{a,h,RA} * \text{SCUCSignChange}_{a,h} \right) \end{array} \right]$$

Where,

$DCR_{a,h}$ = The DAM Constraint Residual, in dollars, for binding constraint *a* in hour *h* of the Day-Ahead Market

$ShadowPrice_{a,h}$ = The Shadow Price, in dollars/MWh, of binding constraint *a* in hour *h* of the Day-Ahead Market, which Shadow Price is calculated in a manner so that if relaxation of constraint *a* would permit a reduction in the associated Bid Production Cost, $ShadowPrice_{a,h}$ is negative

$FLOW_{a,h,DAM}$ = The Energy flow, in MWh, on binding constraint *a* for hour *h* for a set of injections and withdrawals that corresponds[1] to the set of TCCs and Grandfathered Rights represented in the solution to the most recent auction in which TCCs valid in hour *h* were sold (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction), which Energy flow will be determined using Shift Factors produced in scheduling hour *h* of the Day-Ahead Market applied to these injections and withdrawals and the phase angle regulator schedules fixed in the last auction held for TCCs valid for hour *h*

$FLOW_{a,h,TCC\ Auction}$ = The Energy flow, in MWh, on binding constraint *a* for hour *h* determined as described in the definition of $FLOW_{a,h,DAM}$ above, except that the Shift Factors applied will be those produced in a simulated run of SCUC (run using the Transmission System model used in the most recent auction in which TCCs valid in hour *h* were sold);

provided, however, special rules (1) through (3) below shall instead be used to calculate $FLOW_{a,h,TCC\ Auction}$ if they apply, and rule (4) below shall be used to calculate $FLOW_{a,h,TCC\ Auction}$ if $FLOW_{a,h,TCC\ Auction}$ cannot be calculated using any other rule set forth in this definition of $FLOW_{a,h,TCC\ Auction}$ because a simulated run of SCUC does not produce Shift Factors to calculate $FLOW_{a,h,TCC\ Auction}$:

[1] A set of injections and withdrawals corresponds to a set of TCCs and Grandfathered Rights if the quantity of Energy injected at each location matches the number of TCCs and Grandfathered Rights specifying that location as a POI, and the quantity of Energy withdrawn at each location matches the number of TCCs and Grandfathered Rights specifying that location as a POW.

(1) in the event that a maintenance contingency is binding in the Day-Ahead Market but was not applied in the most recent auction in which TCCs valid in hour *h* were sold, $FLOW_{a,h,TCC\ Auction}$ shall be equal to the Energy flow in MWh on the monitored transmission facility of binding constraint *a* for the contingency resulting in the highest flows on constraint *a* in the most recent auction in which TCCs valid in hour *h* were sold, which Energy flow shall be calculated using the set of injections and withdrawals that corresponds to the set of TCCs and Grandfathered Rights represented in the solution to that auction (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction) and using Shift Factors from a simulated run of SCUC as first set forth in this definition of $FLOW_{a,h,TCC\ Auction}$

(2) in the event that the monitored transmission facility for constraint *a* was modeled as out-of-service in the most recent auction in which TCCs valid in hour *h* were sold and that transmission facility returns to service for hour *h* of the Day-Ahead Market, $FLOW_{a,h,TCC\ Auction}$ shall be equal to:

(i) the rating limit, in MWh, for the monitored transmission facility of binding constraint *a* applicable in hour *h* of the Day-Ahead Market, multiplied by

(ii) negative $SCUCSignChange_{a,h}$

(3) in the event that the transmission facility that is the contingency element for constraint *a* was modeled as out-of-service in the most recent auction in which TCCs valid in hour *h* were sold and that transmission facility returns to service for hour *h* of the Day-Ahead Market, $FLOW_{a,h,TCC\ Auction}$ shall be equal to the Energy flow, in MWh, on the monitored transmission facility of binding constraint *a* for the contingency resulting in the highest flows on the monitored transmission facility of constraint *a* in the most recent auction in which TCCs valid in hour *h* were sold, which Energy flow shall be calculated using the set of injections and withdrawals that corresponds to the set of TCCs and Grandfathered Rights represented in the solution to that auction (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction) and using Shift Factors from a simulated run of SCUC as first set forth in this definition of $FLOW_{a,h,TCC\ Auction}$

(4) in the event that a simulated run of SCUC does not produce Shift Factors to calculate $FLOW_{a,h,TCC\ Auction}$, $FLOW_{a,h,TCC\ Auction}$ shall be equal to:

(i) the Energy flow on constraint *a* as determined in the most recent auction in which TCCs valid in hour *h* were sold, multiplied by

(ii) $OPF/SCUCAdjust_a$

$UprateDerate_{a,h}$ = Zero, except that in the event of a Qualifying DAM Uprating or Qualifying DAM Derating for constraint *a* in hour *h* that is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction), $UprateDerate_{a,h}$ shall equal the interface uprating or derating impact reflected in such table.

Notwithstanding the definition above, $UprateDerate_{a,h}$ shall always equal zero in the event that the monitored transmission facility for binding constraint *a* in the Day-Ahead Market was modeled as out-of-service in the most recent auction in which TCCs valid in hour *h* were sold and that transmission facility returns to service for hour *h*.

$UnsoldCapacity_{a,h,RA}$ = Zero, except that if $ShadowPrice_{a,h} * (FLOW_{a,h,DAM} - FLOW_{a,h,TCCAuction}) + (UprateDerate_{a,h} * SCUCSignChange_{a,h})$ is less than zero, then $UnsoldCapacity_{a,h,RA}$ shall be equal to the lesser of (1) the amount of transmission Capacity for constraint *a* that was available for sale in the most recent auction in which TCCs valid in hour *h* were sold but which transmission Capacity was not sold; or (2) the absolute value of $(FLOW_{a,h,DAM} - FLOW_{a,h,TCCAuction}) + (UprateDerate_{a,h} * SCUCSignChange_{a,h})$.

$SCUCSignChange_{a,h}$ = 1 if $ShadowPrice_{a,h}$ is greater than zero; otherwise, -1.

$OPF/SCUCAdjust_a$ = 1 if the directional orientation of constraint *a* used by the ISO in SCUC is the same as that used by the ISO in the Optimal Power Flow program used to select winning Bids in TCC auctions; otherwise, -1.

Following calculation of the DAM Constraint Residual for each constraint *a* for each hour *h*, the ISO shall calculate the amount of each O/R-t-S DAM Constraint Residual and the amount of each U/D DAM Constraint Residual for each constraint *a* for each hour *h*. The amount of each O/R-t-S DAM Constraint Residual for hour *h* and for constraint *a* shall be determined by applying Formula B-6. The amount of each U/D DAM Constraint Residual for hour *h* and for constraint *a* shall be determined by applying Formula B-7.

Formula B-6

$$\text{O/R-t-S DCR}_{a,h} = \text{DCR}_{a,h} * \left[\frac{\left(\text{FLOW}_{a,h,DAM} - \text{FLOW}_{a,h,TCCAuction}\right)}{\left(\text{FLOW}_{a,h,DAM} - \text{FLOW}_{a,h,TCCAuction}\right) + \left(\text{UprateDerate}_{a,h} * \text{SCUCSignChange}_{a,h}\right)} \right]$$

Where,

O/R-t-S $DCR_{a,h}$ = The amount of the O/R-t-S DAM Constraint Residual, in dollars, for hour *h* and for constraint *a*

and each of the other variables are as defined in Formula B-5.

Formula B-7

$$\text{U/D DCR}_{a,h} = \text{DCR}_{a,h} * \left[\frac{\text{UprateDerate}_{a,h} * \text{SCUCSignChange}_{a,h}}{\left(\text{FLOW}_{a,h,DAM} - \text{FLOW}_{a,h,TCCAuction}\right) + \left(\text{UprateDerate}_{a,h} * \text{SCUCSignChange}_{a,h}\right)} \right]$$

Where,

U/D $DCR_{a,h}$ = The amount of the U/D DAM Constraint Residual for hour *h* for constraint *a*

and each of the other variables are as defined in Formula B-5.

Section 2.4.2. Charges and Payments for the Direct Impact of DAM Outages and Returns-to-Service

The ISO shall use O/R-t-S DAM Constraint Residuals to allocate O/R-t-S Congestion Rent Shortfall Charges and O/R-t-S Congestion Rent Surplus Payments, as the case may be, among Transmission Owners pursuant to this Section 2.4.2. Each O/R-t-S Congestion Rent Shortfall Charge and each O/R-t-S Congestion Rent Surplus Payment allocated to a Transmission Owner pursuant to this Section 2.4.2 is subject to being set equal to zero pursuant to Section 2.4.5.

Section 2.4.2.1. Identification of Outages and Returns-to-Service Qualifying for Charges and Payments

For each hour of the Day-Ahead Market, the ISO shall identify each Qualifying DAM Outage and each Qualifying DAM Return-to-Service, as described below. The Transmission Owner responsible, as determined pursuant to Section 2.4.4, for a Qualifying DAM Outage or Qualifying DAM Return-to-Service shall be allocated an O/R-t-S Congestion Rent Shortfall Charge or an O/R-t-S Congestion Rent Surplus Payment pursuant to Sections 2.4.2.2 or 2.4.2.3.

Section 2.4.2.1.1. Definition of Qualifying DAM Outage

A "**Qualifying DAM Outage**" shall be defined to mean either an Actual Qualifying DAM Outage or a Deemed Qualifying DAM Outage. For purposes of this Part V of this Attachment B, "*o*" shall refer to a single Qualifying DAM Outage.

An "**Actual Qualifying DAM Outage**" shall be defined as a transmission facility that, for a given hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the facility exists but is not modeled as in-service for the Day-Ahead Market for hour *h*;

(ii) the facility existed and was modeled as in-service in the last auction held for TCCs valid for hour *h*; and

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last auction held for TCCs valid for hour *h*.

A "**Deemed Qualifying DAM Outage**" shall be defined as a transmission facility that, for a given hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the facility existed but was not modeled as in-service for the last auction held for TCCs valid for hour *h*;

(ii) the facility existed but was not modeled as in-service in hour *h* as a result of a DAM Status Change or external event described in Section 2.4.4.3 for which responsibility was assigned pursuant to Section 2.4.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 2.4.4) other than the Transmission Owner assigned responsibility for the facility not being modeled as in-service for the last auction held for TCCs valid for hour *h*;

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last auction held for TCCs valid for hour *h*.

A transmission facility shall not qualify as an Actual Qualifying DAM Outage if the facility is modeled as in-service for hour *h* of the Day-Ahead Market as a result of a Transmission Owner's use of spare or alternative transmission equipment to bring the facility back in-service so long as the Transmission Owner has notified the ISO in advance of or contemporaneously with the use of such spare or alternative equipment and the estimated duration of its use.

Section 2.4.2.1.2. Definition of Qualifying DAM Return-to-Service

A "**Qualifying DAM Return-to-Service**" shall be defined to mean either an Actual Qualifying DAM Return-to-Service or a Deemed Qualifying DAM Return-to-Service. For purposes of this Part V of this Attachment B, "*o*" shall refer to a single Qualifying DAM Return-to-Service.

An "**Actual Qualifying DAM Return-to-Service**" shall be defined as a transmission facility that, for a given hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the facility exists and is modeled as in-service in the Day-Ahead Market for hour *h*;

(ii) the facility existed but was not modeled as in-service for the last auction held for TCCs valid for hour *h*; and

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last auction held for TCCs valid for hour *h*.

A "**Deemed Qualifying DAM Return-to-Service**" shall be defined as a transmission facility that, for a given hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the facility existed but was not modeled as in-service for the last auction held for TCCs valid for hour *h*;

(ii) the facility existed but was not modeled as in-service in the Day-Ahead Market for hour *h* as a result of a DAM Status Change or external event described in Section 2.4.4.3 for which responsibility is assigned pursuant to Section 2.4.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 2.4.4) other than the Transmission Owner assigned responsibility for the facility not being modeled as in-service for the last auction held for TCCs valid for hour *h*; and

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last auction held for TCCs valid for hour *h*.

Section 2.4.2.2. Allocation of an O/R-t-S DAM Constraint Residual When Only One Transmission Owner is Responsible for All of the Relevant Outages and Returns-to-Service

This Section 2.4.2.2 describes the allocation of an O/R-t-S DAM Constraint Residual for a given hour and a given constraint when only one Transmission Owner is responsible, as determined pursuant to Section 2.4.4, for all of the Qualifying DAM Outages and all of the Qualifying DAM Returns-to-Service for that hour that contribute to that constraint.

If the same Transmission Owner is responsible, as determined pursuant to Section 2.4.4, for all of the Qualifying DAM Outages *o* and Qualifying DAM Returns-to-Service *o* for hour *h* that contribute to constraint *a*, then the ISO shall allocate the O/R-t-S DAM Constraint Residual for that hour and that constraint, O/R-t-S $DCR_{a,h}$, to that Transmission Owner in the form of either: (i) an O/R-t-S Congestion Rent Shortfall Charge in the amount of O/R-t-S $DCR_{a,h}$ if O/R-t-S $DCR_{a,h}$ is negative, or (ii) an O/R-t-S Congestion Rent Surplus Payment in the amount of O/R-t-S $DCR_{a,h}$ if O/R-t-S $DCR_{a,h}$ is positive.

Section 2.4.2.3. Allocation of an O/R-t-S DAM Constraint Residual When More Than One Transmission Owner is Responsible for the Relevant Outages and Returns-to-Service

This Section 2.4.2.3 describes the allocation of an O/R-t-S DAM Constraint Residual for a given hour and a given constraint when more than one Transmission Owner is responsible, as determined pursuant to Section 2.4.4, for the Qualifying DAM Outages and the Qualifying DAM Returns-to-Service for that hour that contribute to that constraint.

If more than one Transmission Owner is responsible, as determined pursuant to Section 2.4.4, for the Qualifying DAM Outages and the Qualifying DAM Returns-to-Service for hour *h* that contribute to constraint *a*, the ISO shall allocate the O/R-t-S DAM Constraint Residual for constraint *a* for hour *h*, O/R-t-S $DCR_{a,h}$, in the form of an O/R-t-S Congestion Rent Shortfall Charge or O/R-t-S Congestion Rent Surplus Payment to the Transmission Owners responsible for the Qualifying DAM Outages *o* and Qualifying DAM Returns-to-Service *o* for hour *h* by first determining the net total impact on the constraint for hour *h* of all Qualifying DAM Outages and Qualifying DAM Returns-to-Service for hour *h* with an impact on the Energy flow across that constraint of 1 MWh or more by applying Formula B-8, and then applying either Formula B-9 or Formula B-10, as specified herein, to assess O/R-t-S Congestion Rent Shortfall Charges and O/R-t-S Congestion Rent Surplus Payments.

Formula B-8

$$\text{O/R-t-S NetDAMImpact}_{a,h} = \left(\sum_{\text{for all } o \in O_h} \text{FlowImpact}_{a,h,o} * \text{ShadowPrice}_{a,h} \right) * \text{OPF/SCUCAdjust}_{a}$$

Where,

$\text{O/R-t-S NetDAMImpact}_{a,h}$ = The net impact, in dollars, on constraint *a* in hour *h* of all Qualifying DAM Outages and Qualifying DAM Returns-to-Service for hour *h* having an impact of more than 1 MWh on Energy flow across constraint *a*; ***provided, however***, $\text{O/R-t-S NetDAMImpact}_{a,h}$ shall be subject to recalculation as specified in the paragraph immediately following this Formula B-8

$\text{FlowImpact}_{a,h,o}$ = The Energy flow impact of a Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o*, in MWh, on binding constraint *a* determined for hour *h*, which shall either:

(a) if Qualifying DAM Outage *o* is a Deemed Qualifying DAM Outage, be equal to the negative of $\text{FlowImpact}_{a,h,o}$ calculated for the corresponding Deemed Qualifying DAM Return-to-Service as described in part (b) of this definition of $\text{FlowImpact}_{a,h,o}$; or

(b) if Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o* is an Actual Qualifying DAM Outage, an Actual Qualifying DAM Return-to-Service, or a Deemed Qualifying DAM Return-to-Service, be calculated pursuant to the following formula:

$FlowImpact_{a,h,o} = One\text{-}OffFlow_{a,h,o} - BaseCaseFlow_{a,h}$

Where,

$BaseCaseFlow_{a,h}$ = The Energy flow on binding constraint *a* resulting from a Power Flow or similar analysis using (1) the set of injections and withdrawals corresponding to the TCCs and Grandfathered Rights represented in the solution to the most recent auction in which TCCs valid in hour *h* were sold (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction); (2) the phase angle regulator schedule determined in the Optimal Power Flow solution for the final round of the last auction held for TCCs valid in hour *h*; and (3) the Transmission System model for the last auction held for TCCs valid in hour *h*;

$One\text{-}OffFlow_{a,h,o}$ = Either

(1) if Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o* is an Actual Qualifying DAM Outage or an Actual Qualifying DAM Return-to-Service, the Energy flow on binding constraint *a* resulting from a Power Flow or similar analysis using each element of the base case data set used in the calculation of $BaseCaseFlow_{a,h}$ above (***provided, however***, if a transmission facility was modeled as free-flowing in hour *h* of the Day-Ahead Market because of the outage of any transmission facility, the ISO shall appropriately adjust the phase angle regulator schedule and related variables to model the transmission facility as free flowing), but in each case

with the Transmission System model modified so as to, as the case may be, either (i) model as out-of-service Actual Qualifying DAM Outage *o*, or (ii) model as in-service Actual Qualifying DAM Return-to-Service *o*; or

(2) if Qualifying DAM Return-to-Service *o* is a Deemed Qualifying DAM Return-to-Service, the Energy flow on binding constraint *a* resulting from a Power Flow or similar analysis using each element of the base case data set used in the calculation of $BaseCaseFlow_{a,h}$ above (***provided, however***, if a transmission facility was modeled as free-flowing in hour *h* of the Day-Ahead Market because of the outage of any transmission facility, the ISO shall appropriately adjust the phase angle regulator schedule and related variables to model the transmission facility as free flowing), but with the Transmission System model modified so as to model as in-service the transmission facility that is Deemed Qualifying DAM Return-to-Service *o*

provided, however, where the absolute value of $FlowImpact_{a,h,o}$ calculated using the procedures set forth above is less than 1 MWh, then $FlowImpact_{a,h,o}$ shall be set equal to zero;

provided further, $FlowImpact_{a,h,o}$ shall be subject to being set equal to zero as specified in the paragraph immediately following this Formula B-8

O_h = The set of all Qualifying DAM Outages *o* and Qualifying DAM Returns-to-Service *o* in hour *h*

and the variables $ShadowPrice_{a,h}$ and $OPF/SCUCAdjust_a$ are defined as set forth in Formula B-5.

After calculating O/R-t-S $NetDAMImpact_{a,h}$ pursuant to Formula B-8, the ISO shall determine whether O/R-t-S $NetDAMImpact_{a,h}$ for constraint *a* in hour *h* has a different sign than O/R-t-S $DCR_{a,h}$ for constraint *a* in hour *h*. If the sign is different, the ISO shall (i) recalculate O/R-t-S $NetDAMImpact_{a,h}$ pursuant to Formula B-8 after setting equal to zero each $FlowImpact_{a,h,o}$ for which $FlowImpact_{a,h,o} * ShadowPrice_{a,h} * OPF/SCUCAdjust_a$ has a different sign than

O/R-t-S $DCR_{a,h}$, and then (ii) use this recalculated O/R-t-S $NetDAMImpact_{a,h}$ and reset value of $FlowImpact_{a,h,o}$ to allocate O/R-t-S Congestion Rent Shortfall Charges and O/R-t-S Congestion Rent Surplus Payments pursuant to Formula B-9 or Formula B-10, as specified below.

If the absolute value of the net impact (O/R-t-S $NetDAMImpact_{a,h}$) on constraint *a* of all Qualifying DAM Outages and Qualifying DAM Returns-to-Service for hour *h* as calculated using Formula B-8 (or recalculated pursuant to Formula B-8 using a reset value of $FlowImpact_{a,h,o}$ as described in the prior paragraph) is greater than the absolute value of the O/R-t-S DAM Constraint Residual (O/R-t-S $DCR_{a,h}$), in dollars, for constraint *a* in hour *h*, then the ISO shall allocate the O/R-t-S DAM Constraint Residual in the form of an O/R-t-S Congestion Rent Shortfall Charge, O/R-t-S $CRSC_{a,t,h}$, or O/R-t-S Congestion Rent Surplus Payment, O/R-t-S $CRSP_{a,t,h}$, by using Formula B-9. If the absolute value of the net impact (O/R-t-S $NetDAMImpact_{a,h}$) on constraint *a* of all Qualifying DAM Outages and Qualifying DAM Returns-to-Service for hour *h* as calculated using Formula B-8 (or recalculated pursuant to Formula B-8 using a reset value of $FlowImpact_{a,h,o}$ as described in the prior paragraph) is less than or equal to the absolute value of the O/R-t-S DAM Constraint Residual (O/R-t-S $DCR_{a,h}$), in dollars, for constraint *a* in hour *h*, then the ISO shall allocate the O/R-t-S DAM Constraint Residual in the form of an O/R-t-S Congestion Rent Shortfall Charge or O/R-t-S Congestion Rent Surplus Payment by using Formula B-10.

Formula B-9

$$\text{O/R-t-S Allocation}_{a,t,h} = \left(\frac{\sum_{\substack{o \in O_h \\ \text{and } q=t}} \left(\text{FlowImpact}_{a,h,o} * \text{Responsibility}_{h,q,o} \right)}{\sum_{\text{for all } o \in O_h} \text{FlowImpact}_{a,h,o}} \right) * \text{O/R-t-S DCR}_{a,h}$$

Where,

O/R-t-S $Allocation_{a,t,h}$ = Either an O/R-t-S Congestion Rent Shortfall Charge or an O/R-t-S Congestion Rent Surplus Payment, as specified in (a) and (b) below:

(a) If O/R-t-S Allocation$_{a,t,h}$ is negative, then O/R-t-S Allocation$_{a,t,h}$ shall be an O/R-t-S Congestion Rent Shortfall Charge, O/R-t-S CRSC$_{a,t,h}$, charged to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market; or

(b) If O/R-t-S Allocation$_{a,t,h}$ is positive, then O/R-t-S Allocation$_{a,t,h}$ shall be an O/R-t-S Congestion Rent Surplus Payment, O/R-t-S CRSP$_{a,t,h}$, paid to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market

Responsibility$_{h,q,o}$ = The amount, as a percentage, of responsibility borne by Transmission Owner *q* (which shall include the ISO when it is deemed a Transmission Owner for the purpose of applying Sections 2.4.4.2, 2.4.4.3, or 2.4.4.4) for Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o* in hour *h*, as determined pursuant to Section 2.4.4

and the variable O/R-t-S DCR$_{a,h}$ is defined as set forth in Formula B-6 and the variables FlowImpact$_{a,h,o}$ and O$_h$ are defined as set forth in Formula B-8.

Formula B-10

$$\text{O/R-t-S Allocation}_{a,t,h} = \left(\sum_{\substack{o \in O_h \\ \text{and } q=t}} \text{FlowImpact}_{a,h,o} * \text{ShadowPrice}_{a,h} * \text{Responsibility}_{h,q,o} \right) * \text{OPF/SCUCAdjust}_a$$

Where,

the variables ShadowPrice$_{a,h}$ and OPF/SCUCAdjust$_a$ are defined as set forth in Formula B-5, the variables O/R-t-S Allocation$_{a,t,h}$ and Responsibility$_{h,q,o}$ are defined as set forth in Formula B-9, and the variables FlowImpact$_{a,h,o}$ and O$_h$ are defined as set forth in Formula B-8.

Section 2.4.3. Charges and Payments for the Secondary Impact of DAM Outages and Returns-to-Service

The ISO shall use U/D DAM Constraint Residuals to allocate U/D Congestion Rent Shortfall Charges and U/D Congestion Rent Surplus Payments, as the case may be, among

Transmission Owners pursuant to this Section 2.4.3. Each U/D Congestion Rent Shortfall Charge and each U/D Congestion Rent Surplus Payment allocated to a Transmission Owner pursuant to this Section 2.4.3 is subject to being set equal to zero pursuant to Section 2.4.5.

Section 2.4.3.1. Identification of Upratings and Deratings Qualifying for Charges and Payments

For each hour of the Day-Ahead Market and for each constraint, the ISO shall identify each Qualifying DAM Derating and each Qualifying DAM Uprating, as described below. The Transmission Owner responsible, as determined pursuant to Section 2.4.4, for the Qualifying DAM Derating shall be allocated a U/D Congestion Rent Shortfall Charge and the Transmission Owner responsible, as determined pursuant to Section 2.4.4, for the Qualifying DAM Uprating shall be allocated a U/D Congestion Rent Surplus Payment pursuant to Section 2.4.3.2.

Section 2.4.3.1.1. Definition of Qualifying DAM Derating

A "**Qualifying DAM Derating**" shall be defined to mean either an Actual Qualifying DAM Derating or a Deemed Qualifying DAM Derating. For purposes of this Part V of this Attachment B, "*r*" shall refer to a single Qualifying DAM Derating.

An "**Actual Qualifying DAM Derating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* and hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the constraint has a lower rating in hour *h* than it would have if all transmission facilities were modeled as in-service in hour *h*;

(ii) this lower rating is in whole or in part the result of an Actual Qualifying DAM Outage *o* or an Actual Qualifying DAM Return-to-Service *o* for hour *h*;

(iii) this lower rating resulting from Actual Qualifying DAM Outage *o* or Actual Qualifying DAM Return-to-Service *o* for hour *h* was not modeled in the last auction held for TCCs valid for hour *h*;

(iv) this lower rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the last Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*); and

(v) the constraint is binding in the Day-Ahead Market for hour *h*.

A "**Deemed Qualifying DAM Derating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* and hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the constraint has a lower rating in hour *h* than it would have if all transmission facilities were modeled as in-service in hour *h*;

(ii) this lower rating is in whole or in part the result of a Deemed Qualifying DAM Outage *o* or Deemed Qualifying DAM Return-to-Service *o* for hour *h*;

(iii) the lower rating resulting from Deemed Qualifying DAM Outage *o* or Deemed Qualifying DAM Return-to-Service *o* for hour *h* was modeled in the last auction held for TCCs valid for hour *h*, but responsibility for Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o* resulting in the lower rating for hour *h* is assigned pursuant to Section 2.4.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 2.4.4) other than the Transmission Owner responsible for the lower rating in the last auction held for TCCs valid for hour *h*;

(iv) this lower rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the last Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*); and

(v) the constraint is binding in the Day-Ahead Market for hour *h*.

Section 2.4.3.1.2. Definition of Qualifying DAM Uprating

A "**Qualifying DAM Uprating**" shall be defined to mean either an Actual Qualifying DAM Uprating or a Deemed Qualifying DAM Uprating. For purposes of this Part V of this Attachment B, "*r*" shall refer to a single Qualifying DAM Uprating.

An "**Actual Qualifying DAM Uprating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* in hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the constraint has a higher rating for hour *h* than it would have absent an Actual Qualifying DAM Outage *o* or Actual Qualifying DAM Return-to-Service *o* for hour *h*;

(ii) this higher rating resulting from Actual Qualifying DAM Outage *o* or Actual Qualifying Return-to-Service *o* for hour *h* was not modeled in the last auction held for TCCs valid for hour *h*;

(iii) this higher rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the last Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*); and

(iv) the constraint is binding in the Day-Ahead Market for hour *h*.

A "**Deemed Qualifying DAM Uprating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* and hour *h* of the Day-Ahead Market, meets each of the following requirements:

(i) the constraint has a lower rating in hour *h* than it would have if all transmission facilities were modeled as in-service in hour *h*;

(ii) this lower rating is in whole or in part the result of a Deemed Qualifying DAM Outage *o* or Deemed Qualifying DAM Return-to-Service *o* for hour *h*;

(iii) this lower rating resulting from Deemed Qualifying DAM Outage *o* or Deemed Qualifying DAM Return-to-Service *o* for hour *h* was modeled in the last auction held for TCCs valid for hour *h*, but responsibility for Qualifying DAM Outage *o* or Qualifying DAM Return-to-Service *o* resulting in the lower rating for hour *h* is assigned pursuant to Section 2.4.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner for the purpose of applying Section 2.4.4) other than the Transmission Owner responsible for the lower rating in the last auction held for TCCs valid for hour *h*;

(iv) this lower rating for hour *h* is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the last Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*); and

(v) the constraint is binding in the Day-Ahead Market for hour *h*.

Section 2.4.3.2. Allocation of U/D DAM Constraint Residuals

This Section 2.4.3.2 describes the allocation of U/D DAM Constraint Residuals to Qualifying DAM Deratings and Qualifying DAM Upratings.

When there are Qualifying DAM Deratings or Qualifying DAM Upratings for constraint *a* in hour *h,* the ISO shall allocate a U/D DAM Constraint Residual in the form of a U/D Congestion Rent Shortfall Charge, U/D $CRSC_{a,t,h}$, or U/D Congestion Rent Surplus Payment, U/D $CRSP_{a,t,h}$, by first determining the net total impact on the constraint for hour *h* of all Qualifying DAM Upratings *r* and Qualifying DAM Deratings *r* for constraint *a* in hour *h* pursuant to Formula B-11 and then applying either Formula B-12 or Formula B-13, as specified herein, to assess U/D Congestion Rent Shortfall Charges and U/D Congestion Rent Surplus Payments.

Formula B-11

$$\text{U/D NetDAMImpact}_{a,h} = \left(\sum_{\text{for all } r \in R_{a,h}} \text{RatingChange}_{a,h,r} * \text{ShadowPrice}_{a,h} \right) * \text{SCUCSignChange}_{a,h}$$

Where,

$\text{U/D NetDAMImpact}_{a,h}$ = The net impact, in dollars, on constraint *a* of all Qualifying DAM Upratings and Qualifying DAM Deratings for constraint *a* in hour *h*; *provided, however*, $\text{U/D NetDAMImpact}_{a,h}$ shall be subject to recalculation as specified in the paragraph immediately following this Formula B-11

$\text{RatingChange}_{a,h,r}$ = Either

(a) If Qualifying DAM Derating *r* or Qualifying DAM Uprating *r* is a Deemed Qualifying DAM Derating or a Deemed Qualifying DAM Uprating, $\text{RatingChange}_{a,h,r}$ shall be equal to the amount, in MWh, of the decrease or increase in the rating of binding constraint *a* in hour *h* resulting from a Deemed Qualifying DAM Return-to-Service or Deemed Qualifying DAM Outage for constraint *a* in hour *h*, as shown in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*); or

(b) If Qualifying DAM Derating *r* or Qualifying DAM Uprating *r* is an Actual Qualifying DAM Derating or an Actual Qualifying DAM Uprating, $\text{RatingChange}_{a,h,r}$ shall be equal to the amount, in MWh, of the decrease or increase in the rating of binding constraint *a* in hour *h* resulting from an Actual Qualifying DAM Return-to-Service or an Actual Qualifying DAM Outage for constraint *a* in hour *h*, as shown in the Reconfiguration Auction Interface Uprate/Derate Table in effect for the Reconfiguration Auction in which TCCs valid in hour *h* were sold (or if no Reconfiguration Auction was held for TCCs valid in hour *h*, then the Centralized TCC Auction Interface Uprate/Derate Table in effect for the last Centralized TCC Auction held for TCCs valid in hour *h*);

provided, however, $\text{RatingChange}_{a,h,r}$ shall be subject to being set equal to zero as specified in the paragraph immediately following this Formula B-11

$R_{a,h}$ = The set of all Qualifying DAM Deratings *r* or Qualifying DAM Upratings *r* for binding constraint *a* in hour *h*

and the variables $SCUCSignChange_{a,h}$ and $ShadowPrice_{a,h}$ are defined as set forth in Formula B-5.

After calculating U/D $NetDAMImpact_{a,h}$ pursuant to Formula B-11, the ISO shall determine whether U/D $NetDAMImpact_{a,h}$ for constraint *a* in hour *h* has a different sign than U/D $DCR_{a,h}$ for constraint *a* in hour *h*. If the sign is different, the ISO shall (i) recalculate U/D $NetDAMImpact_{a,h}$ pursuant to Formula B-11 after setting equal to zero each $RatingChange_{a,h,r}$ for which $RatingChange_{a,h,r}$ * $ShadowPrice_{a,h}$ * $SCUCSignChange_{a,h}$ has a different sign than U/D $DCR_{a,h}$, and then (ii) use this recalculated U/D $NetDAMImpact_{a,h}$ and reset value of $RatingChange_{a,h,r}$ to allocate U/D Congestion Rent Shortfall Charges and U/D Congestion Rent Surplus Payments pursuant to Formula B-12 or Formula B-13, as specified below.

If the absolute value of the net impact (U/D $NetDAMImpact_{a,h}$) on constraint *a* of all Qualifying DAM Deratings and Qualifying DAM Upratings for constraint *a* in hour *h* as calculated using Formula B-11 (or recalculated pursuant to Formula B-11 using a reset value of $RatingChange_{a,h,r}$ as described in the prior paragraph) is greater than the absolute value of the U/D DAM Constraint Residual (U/D $DCR_{a,h}$) for constraint *a* in hour *h*, then the ISO shall allocate the U/D DAM Constraint Residual in the form of a U/D Congestion Rent Shortfall Charge, U/D $CRSC_{a,t,h}$, or U/D Congestion Rent Surplus Payment, U/D $CRSP_{a,t,h}$, by using Formula B-12. If the absolute value of the net impact (U/D $NetDAMImpact_{a,h}$) on constraint *a* of all Qualifying DAM Deratings and Qualifying DAM Upratings for constraint *a* in hour *h* as calculated using Formula B-11 (or recalculated pursuant to Formula B-11 using a reset value of $RatingChange_{a,h,r}$ as described in the prior paragraph) is less than or equal to the absolute value of

the U/D DAM Constraint Residual (U/D $DCR_{a,h}$) for constraint *a* in hour *h*, then the ISO shall allocate the U/D DAM Constraint Residual in the form of a U/D Congestion Rent Shortfall Charge, U/D $CRSC_{a,t,h}$, or U/D Congestion Rent Surplus Payment, U/D $CRSP_{a,t,h}$, by using Formula B-13.

Formula B-12

$$\text{U/D Allocation}_{a,t,h} = \left(\frac{\sum_{\substack{r \in R_{a,h} \\ \text{and } q=t}} \left(\text{RatingChange}_{a,h,r} * \text{Responsibility}_{h,q,r} \right)}{\sum_{\text{for all } r \in R_{a,h}} \text{RatingChange}_{a,h,r}} \right) * \text{U/D DCR}_{a,h}$$

Where,

$\text{U/D Allocation}_{a,t,h}$ = Either a U/D Congestion Rent Shortfall Charge or a U/D Congestion Rent Surplus Payment, as specified in (a) and (b) below:

(a) If $\text{U/D Allocation}_{a,t,h}$ is negative, then $\text{U/D Allocation}_{a,t,h}$ shall be a U/D Congestion Rent Shortfall Charge, U/D $CRSC_{a,t,h}$, charged to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market; or

(b) If $\text{U/D Allocation}_{a,t,h}$ is positive, then $\text{U/D Allocation}_{a,t,h}$ shall be a U/D Congestion Rent Surplus Payment, U/D $CRSP_{a,t,h}$, paid to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market

$\text{Responsibility}_{h,q,r}$ = The amount, as a percentage, of responsibility borne by Transmission Owner *q* (which shall include the ISO when it is deemed a Transmission Owner for the purpose of applying Sections 2.4.4.2, 2.4.4.3, or 2.4.4.4) for Qualifying DAM Derating *r* or Qualifying DAM Uprating *r* in hour *h*, as determined pursuant to Section 2.4.4

and the variable U/D $DCR_{a,h}$ is defined as set forth in Formula B-7 and the variables $\text{RatingChange}_{a,h,r}$ and $R_{a,h}$ are defined as set forth in Formula B-11.

Formula B-13

$$\text{U/D Allocation}_{a,t,h} = \left(\sum_{\substack{r \in R_{a,h} \\ \text{and } q=t}} \text{RatingChange}_{a,h,r} * \text{ShadowPrice}_{a,h} * \text{Responsibility}_{h,q,r} \right) * \text{SCUCSignChange}_{a,h}$$

Where,

the variables $\text{ShadowPrice}_{a,h}$ and $\text{SCUCSignChange}_{a,h}$ are defined as set forth in Formula B-5, the variables $\text{U/D Allocation}_{a,t,h}$ and $\text{Responsibility}_{h,q,r}$ are defined as set forth in Formula B-12, and the variables $\text{RatingChange}_{a,h,r}$ and $R_{a,h}$ are defined as set forth in Formula B-11.

Section 2.4.4. Assigning Responsibility for Outages, Returns-to-Service, Deratings, and Upratings

Section 2.4.4.1. General Rule for Assigning Responsibility; Presumption of Causation

Unless the special rules set forth in Sections 2.4.4.2 through 2.4.4.4 apply, a Transmission Owner shall for purposes of this Section 2.4 be deemed responsible for a DAM Status Change to the extent that the Transmission Owner has caused the DAM Status Change by changing the in-service or out-of-service status of its transmission facility; *provided, however*, that where a DAM Status Change results from a change to the in-service or out-of-service status of a transmission facility owned by more than one Transmission Owner, responsibility for such DAM Status Change shall be assigned to each owning Transmission Owner based on the percentage of the transmission facility that is owned by the Transmission Owner (as determined in accordance with Section 2.4.6.1) during the hour for which the DAM Status Change occurred. For the sake of clarity, a Transmission Owner may, by changing the in-service or out-of-service status of its transmission facility, cause a DAM Status Change of another transmission facility if the Transmission Owner's change in the in-service or out-of-service status of its transmission facility causes (directly or as a result of Good Utility Practice) a change in the in-service or out-of-service status of the other transmission facility.

The Transmission Owner that owns a transmission facility that qualifies as a DAM Status Change shall be deemed to have caused the DAM Status Change of that transmission facility unless (i) the Transmission Owner that owns the facility informs the ISO that another Transmission Owner caused the DAM Status Change or that responsibility is to be shared among Transmission Owners in accordance with Sections 2.4.4.2, 2.4.4.3, or 2.4.4.4, and no party disputes such claim; (ii) in case of a dispute over the assignment of responsibility, the ISO determines a Transmission Owner other than the owner of the transmission facility caused the DAM Status Change or that responsibility is to be shared among Transmission Owners in accordance with Sections 2.4.4.2, 2.4.4.3, or 2.4.4.4; or (iii) FERC orders otherwise.

Section 2.4.4.2. Shared Responsibility For Outages, Returns-to-Service, and Ratings Changes Directed by the ISO or Caused by Facility Status Changes Directed by the ISO

A Transmission Owner shall not be responsible for any DAM Status Change that qualifies as an ISO-Directed DAM Status Change or Deemed ISO-Directed DAM Status Change. Instead, the ISO shall allocate any revenue impacts resulting from a DAM Status Change that qualifies as an ISO-Directed DAM Status Change or Deemed ISO-Directed DAM Status Change as part of Net Congestion Rents for hour *h*. To do so, the ISO shall be treated as a Transmission Owner when allocating DAM Constraint Residuals pursuant to Section 2.4.2 and Section 2.4.3, and any DAM Status Change that qualifies as an ISO-Directed DAM Status Change or Deemed ISO-Directed DAM Status Change shall be attributed to the ISO when performing the calculations described in Section 2.4.2 and Section 2.4.3; *provided, however*, any O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment allocable to the ISO pursuant to this Section 2.4.4.2 shall ultimately be allocated to the Transmission Owners as Net Congestion Rents pursuant to Section 2.5.

Responsibility for a Qualifying DAM Return-to-Service or Qualifying DAM Uprating that is directed by the ISO but does not qualify as a Deemed ISO-Directed DAM Status Change shall be assigned to the Transmission Owner that was responsible for the Qualifying Auction Outage or Qualifying Auction Derating in the last Reconfiguration Auction held for TCCs valid for the relevant hour or the last 6-month sub-auction of a Centralized TCC Auction held for TCCs valid for the relevant hour.

Section 2.4.4.3.Shared Responsibility for External Events

A Transmission Owner shall not be responsible for a DAM Status Change occurring inside the NYCA that is caused by a change in the in-service or out-of-service status or rating of a transmission facility located outside the NYCA. Instead, the ISO shall allocate any revenue impacts resulting from a DAM Status Change caused by such an event outside the NYCA as part of Net Congestion Rents for hour *h*. To do so, the ISO shall be treated as a Transmission Owner when allocating DAM Constraint Residuals pursuant to Section 2.4.2 and Section 2.4.3 and any DAM Status Change caused by such an event outside the NYCA shall be attributed to the ISO when performing the calculations described in Section 2.4.2 and Section 2.4.3; *provided, however*, any O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment allocable to the ISO pursuant to this Section 2.4.4.3 shall ultimately be allocated to the Transmission Owners as Net Congestion Rents pursuant to Section 2.5.

Section 2.4.4.4. Shared Responsibility For Returns-to-Service and Upratings During a Transitional Period

Notwithstanding any other provision of this Part V of this Attachment B, a Transmission Owner shall be deemed to be not responsible for a Qualifying DAM Return-to-Service,

Qualifying DAM Derating, or Qualifying DAM Uprating for an hour of the Day-Ahead Market if this Part V of this Attachment B was not in effect at the time of the last Reconfiguration Auction held for TCCs valid for the hour. Instead, the ISO shall allocate any revenue impacts resulting from such a Qualifying DAM Return-to-Service, Qualifying DAM Derating, or Qualifying DAM Uprating as part of Net Congestion Rents for hour *h*. To do so, the ISO shall be treated as

a Transmission Owner when allocating DAM Constraint Residuals pursuant to Section 2.4.2 and Section 2.4.3, and any such Qualifying DAM Return-to-Service, Qualifying DAM Derating, or Qualifying DAM Uprating during this transitional period shall be attributed to the ISO when performing the calculations described in Section 2.4.2 and Section 2.4.3; *provided, however*, any O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment allocable to the ISO pursuant to this Section 2.4.4.4 shall ultimately be allocated to the Transmission Owners as Net Congestion Rents pursuant to Section 2.5.

Section 2.4.5. Exceptions: Setting Charges and Payments to Zero

Section 2.4.5.1. Zeroing Out of Charges and Payments When Outages and Deratings Lead to Net Payments or Returns-to-Service and Upratings Lead to Net Charges

The ISO shall use Formula B-14 to calculate the total O/R-t-S Congestion Rent Shortfall Charges, U/D Congestion Rent Shortfall Charges, O/R-t-S Congestion Rent Surplus Payments, and U/D Congestion Rent Surplus Payments, $NetDAMAllocations_{t,h}$, for Transmission Owner *t* in hour *h*. Based on this calculation, the ISO shall set equal to zero all O/R-t-S $CRSC_{a,t,h}$, U/D $CRSC_{a,t,h}$, O/R-t-S $CRSP_{a,t,h}$, and U/D $CRSP_{a,t,h}$ (each as defined in Formula B-14) for Transmission Owner *t* for all constraints for hour *h* if (i) $NetDAMAllocations_{t,h}$ is positive and Transmission Owner *t* is not responsible (as determined pursuant to Section 2.4.4) for any Qualifying DAM Returns-to-Service or Qualifying DAM Upratings during hour *h*, or (ii) $NetDAMAllocations_{t,h}$ is negative and Transmission Owner *t* is not responsible (as determined pursuant to Section 2.4.4) for any Qualifying DAM Outages or Qualifying DAM Deratings

during hour *h*; *provided, however*, the ISO shall not set equal to zero pursuant to this Section 2.4.5.1 any O/R-t-S $CRSC_{a,t,h}$, U/D $CRSC_{a,t,h}$, O/R-t-S $CRSP_{a,t,h}$, or U/D $CRSP_{a,t,h}$ arising from an ISO-Directed DAM Status Change or Deemed ISO-Directed DAM Status Change described in Section 2.4.4.2, an external event described in Section 2.4.4.3, or an event occurring during a transitional period as described in Section 2.4.4.4.

Formula B-14

$$\text{NetDAMAllocations}_{t,h} = \sum_{\text{for all a}} \left(\text{O/R-t-S CRSC}_{a,t,h} + \text{U/D CRSC}_{a,t,h} + \text{O/R-t-S CRSP}_{a,t,h} + \text{U/D CRSP}_{a,t,h}\right)$$

Where,

$\text{NetDAMAllocations}_{t,h}$ = The total of the O/R-t-S Congestion Rent Shortfall Charges, U/D Congestion Rent Shortfall Charges, O/R-t-S Congestion Rent Surplus Payments, and U/D Congestion Rent Surplus Payments allocated to Transmission Owner *t* in hour *h*

O/R-t-S $CRSC_{a,t,h}$ = An O/R-t-S Congestion Rent Shortfall Charge allocated to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market, calculated pursuant to Section 2.4.2

U/D $CRSC_{a,t,h}$ = A U/D Congestion Rent Shortfall Charge allocated to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market, calculated pursuant to Section 2.4.3

O/R-t-S $CRSP_{a,t,h}$ = An O/R-t-S Congestion Rent Surplus Payment allocated to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market, calculated pursuant to Section 2.4.2

U/D $CRSP_{a,t,h}$ = A U/D Congestion Rent Surplus Payment allocated to Transmission Owner *t* for binding constraint *a* in hour *h* of the Day-Ahead Market, calculated pursuant to Section 2.4.3.

Section 2.4.5.2. Zeroing Out of Charges and Payments Resulting from Formula Failure

Notwithstanding any other provision of this Part V of this Attachment B, the ISO shall set equal to zero any O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment allocated to a Transmission Owner for an hour of the Day-Ahead Market if either:

(i) data necessary to compute such a charge or payment, as specified in the formulas set forth in Section 2.4, is not known by the ISO and cannot be computed by the ISO (in interpreting this clause, equipment failure shall not preclude computation by the ISO unless necessary data is irretrievably lost); or

(ii) both (a) the charge or payment is clearly and materially inconsistent with cost causation principles; and (b) this inconsistency is the result of factors not taken into account in the formulas used to calculate the charge or payment;

provided, however, if the amount of charges or payments set equal to zero as a result of the unknown data or inaccurate formula is greater than twenty five thousand dollars ($25,000) in any given month or greater than one hundred thousand dollars ($100,000) over multiple months, the ISO will inform the Transmission Owners of the identified problem and will work with the Transmission Owners to determine if an alternative allocation method is needed and whether it will apply to all months for which the intended formula does not work. Alternate methods would be subject to market participant review and subsequent filing with FERC, as appropriate.

For the sake of clarity, the ISO shall not pursuant to this Section 2.4.5.2 set equal to zero any O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment that fails to meet these conditions, even if another O/R-t-S Congestion Rent Shortfall Charge, U/D Congestion

Rent Shortfall Charge, O/R-t-S Congestion Rent Surplus Payment, or U/D Congestion Rent Surplus Payment is set equal to zero pursuant to this Section 2.4.5.2 in the same hour of the Day-Ahead Market.

Section 2.4.6. Information Requirements

Section 2.4.6.1. Information Regarding Facility Ownership

A Transmission Owner shall be responsible for informing the ISO of any change in the ownership of a transmission facility. The ISO shall allocate responsibility for DAM Status Changes based on the transmission facility ownership information available to it at the time of initial settlement.

Section 2.4.6.2. Calculation of Settlements Without DCR Allocation Threshold

One month each year, the ISO shall, for informational purposes only, calculate the DAM Constraint Residuals for each constraint for each hour without applying the DCR Allocation Threshold and shall calculate all O/R-t-S Congestion Rent Shortfall Charges, O/R-t-S Congestion Rent Surplus Payments, U/D Congestion Rent Shortfall Charges, and U/D Congestion Rent Surplus Payments. Before choosing the month for which it will perform these calculations, the ISO will consult with the Transmission Owners.

Section 2.5. Allocation of Net Congestion Rents to Transmission Owners

The Net Congestion Rents for each hour of month *m* shall be summed over the month, so that positive and negative values net to a monthly total, NCR_m. The ISO shall allocate NCR_m each month to the Transmission Owners by allocating to each Transmission Owner *t* an amount equal to the product of (i) NCR_m, and (ii) the allocation factor for Transmission Owner *t* for month *m*, as calculated pursuant to Formula B-15.

Formula B-15

$$\text{AllocationFactor}_{t,m} = \frac{\left(\text{Original Residual}_{t,m} + \text{ETCNL}_{t,m} + \text{NARs}_{t,m} + \text{GFR\&GFTCC}_{t,m}\right)}{\sum_{q \in T}\left(\text{Original Residual}_{q,m} + \text{ETCNL}_{q,m} + \text{NARs}_{q,m} + \text{GFR\&GFTCC}_{q,m}\right)}$$

Where,

$\text{Allocation Factor}_{t,m}$ = The allocation factor used by the ISO to allocate a share of the Net Congestion Rents to Transmission Owner *t* for month *m*

$\text{Original Residual}_{q,m}$ = The one-month portion of the revenue imputed to the Direct Sale or the sale in any Centralized TCC Auction sub-auction of Original Residual TCCs that are valid in month *m.* The one-month portion of the revenue imputed to the Direct Sale of these Original Residual TCCs shall be the market clearing price of the TCCs in the Reconfiguration Auction held for month $m_=$ (or one-sixth of the average market clearing price in the stage 1 rounds of the 6-month sub-auction of the last Centralized TCC Auction if no Reconfiguration Auction was held for month *m*). The one-month portion of the revenue imputed to the sale in any Centralized TCC Auction sub-auction of these Original Residual TCCs shall be calculated by dividing the revenue received from the sale of these Original Residual TCCs in the Centralized TCC Auction sub-auction by the duration in months of the TCCs sold in that Centralized TCC Auction sub-auction

$\text{ETCNL}_{q,m}$ = The sum of the one-month portion of the revenues the Transmission Owner has received as payment for the Direct Sale of ETCNL or for its ETCNL released in the Centralized TCC Auction sub-auctions held for TCCs valid for month *m*. Each one-month portion of the revenue for ETCNL released in such Centralized TCC Auction shall be calculated by dividing the revenue received in a Centralized TCC Auction sub-auction from the sale of the ETCNL by the duration in months of the TCCs corresponding to the ETCNL sold in the Centralized TCC Auction sub-auction.[2] The one-month portion of the revenue imputed to the Direct Sale of ETCNL shall be the value of the TCCs corresponding to that ETCNL in the Reconfiguration Auction held for month *m* (or one-sixth of the average market clearing price of such TCCs in stage 1 rounds of the 6-month sub-auction of the last Centralized TCC Auction if no Reconfiguration Auction was held for month *m*)

[2] A TCC corresponds to ETCNL if it has the same POI and POW as the ETCNL.

$NARs_{q,m}$ = The one-month portion of the Net Auction Revenues the Transmission Owner has received in Centralized TCC Auction sub-auctions and Reconfiguration Auctions held for TCCs valid for month *m* (which shall not include any revenue from the sale of Original Residual TCCs). The one-month portion of the revenues shall be calculated by summing (i) the revenue Transmission Owner *q* received in each Centralized TCC Auction sub-auction or Reconfiguration Auction from the allocation of Net Auction Revenue pursuant to Section 3.7, divided by the duration in months of the TCCs sold in the Centralized TCC Auction sub-auction or Reconfiguration Auction (or, to the extent TCC auction revenues were allocated pursuant to a different methodology, the amount of such revenues allocated to Transmission Owner *q*), minus (ii) the sum of $NetAuctionAllocations_{t,n}$ as calculated pursuant to Formula B-27 (as adjusted for any charges or payments that are zeroed out) for Transmission Owner *q* for all 6-month sub-auction stage 1 rounds *n* of all Centralized TCC Auctions held for TCCs valid in month *m*, divided in each case by the duration in months of the TCCs sold in each Centralized TCC Auction sub-auction (or, to the extent that the revenue impact of transmission facility outages, returns-to-service, upratings, and deratings were settled pursuant to a different methodology, the net of such revenue impacts for Transmission Owner *q*), minus (iii) $NetAuctionAllocations_{t,n}$ as calculated pursuant to Formula B-27 and as adjusted for any charges or payments that are zeroed out for Transmission Owner *q* for the Reconfiguration Auction *n* held for month *m* (or, to the extent that the revenue impact of transmission facility outages, returns-to-service, upratings, and deratings were settled pursuant to a different methodology, the net of such revenue impacts for Transmission Owner *q*)

$GFR\&GFTCC_{q,m}$	=	The one-month portion of the imputed value of Grandfathered TCCs and Grandfathered Rights, valued at their market clearing prices in the Reconfiguration Auction for month *m* (or one-sixth of the average market clearing price in stage 1 rounds in the 6-month sub-auction of the last Centralized TCC Auction if no Reconfiguration Auction was held for month *m*), provided that the Transmission Owner is the selling party and the Existing Transmission Agreement related to each Grandfathered TCC and Grandfathered Right remains valid in month *m*
t	=	Transmission Owner *t*
T	=	The set of all Transmission Owners *q*.

Each Transmission Owner's share of Net Congestion Rents allocated pursuant to this Section 2.5 shall be incorporated into its TSC or NTAC, as the case may be.

SECTION 3. Settlement of TCC Auctions

Section 3.1. Overview of TCC Auction Settlements; Calculation of Net Auction Revenue

Overview of TCC Auction Settlements. For each round *n* of a Centralized TCC Auction and for each Reconfiguration Auction *n*, the ISO shall settle all settlements for round *n* or for Reconfiguration Auction *n*. These settlements include, as applicable pursuant to the provisions of this Part V of this Attachment B: (i) the market clearing price charged or paid to purchasers of TCCs; (ii) payments to Transmission Owners that released ETCNL; (iii) payments or charges to Primary Holders selling TCCs; (iv) payments to Transmission Owners that released Original Residual TCCs; (v) O/R-t-S Auction Revenue Shortfall Charges and U/D Auction Revenue Shortfall Charges; and (vi) O/R-t-S Auction Revenue Surplus Payments and U/D Auction Revenue Surplus Payments. Each of these settlements is represented by a variable in Formula B-16.

Calculation of Net Auction Revenues for a Round or a Reconfiguration Auction. In each Centralized TCC Auction round *n* and in each Reconfiguration Auction *n*, the ISO shall calculate Net Auction Revenue pursuant to Formula B-16.

Formula B-16

$$\text{Net Auction Revenue}_n = \left[\begin{array}{l} \text{TCC Auction Revenue}_n \\ - \text{ETCNL}_n \\ - \text{Primary Holder TCCs Sold}_n \\ - \text{Original Residual TCCs}_n \\ - \text{O/R-t-S\&U/D ARSC\&ARSP}_n \end{array} \right]$$

Where,

n	=	A round of a Centralized TCC Auction (which may be either a stage 1 round of a 6-month sub-auction, a stage 1 round of a sub-auction in which TCCs with a duration greater than 6 months are sold, or a stage 2 round) or a Reconfiguration Auction, as the case may be
Net Auction Revenue$_n$	=	Net Auction Revenue for the round *n* of a Centralized TCC Auction or for Reconfiguration Auction *n*, as the case may be

TCC Auction Revenue$_n$	=	The gross amount of revenue that the ISO collects from the award of TCCs to purchasers in round *n* or in Reconfiguration Auction *n*, which results from the charges and payments allocated pursuant to Section 3.2
ETCNL$_n$	=	Either (i) if round *n* is a stage 1 round of a Centralized TCC Auction, the total of all payments that the ISO makes to Transmission Owners releasing ETCNL into the round pursuant to Section 3.3; (ii) if round *n* is a stage 2 round of a Centralized TCC Auction, 0; or (iii) for Reconfiguration Auction *n*, 0
Primary Holder TCCs Sold$_n$	=	The net of the total payments and charges the ISO allocates to Primary Holders selling TCCs in round *n* or in Reconfiguration Auction *n* pursuant to Section 3.4
Original Residual TCCs$_n$	=	Either (i) if round *n* is a stage 1 round of a Centralized TCC Auction, the total payments the ISO makes in round *n* pursuant to Section 3.5 to Transmission Owners that release into round *n* Original Residual TCCs; (ii) if round *n* is a stage 2 round of a Centralized TCC Auction, 0; or (iii) for Reconfiguration Auction *n*, 0
O/R-t-S&U/D ARSC&ARSP$_n$	=	Either (i) if round *n* is a stage 1 round of a Centralized TCC Auction in which 6-month TCCs are sold, the sum of the total O/R-t-S Auction Revenue Shortfall Charges, U/D Auction Revenue Shortfall Charges, O/R-t-S Auction Revenue Surplus Payments, and U/D Auction Revenue Surplus Payments (calculated as NetAuctionAllocations$_{t,n}$ pursuant to Formula B-27) for all Transmission Owners *t*, reduced by any zeroing out of such charges or payments pursuant to Section 3.6.5; (ii) if round *n* is a stage 2 round of a Centralized TCC Auction or a stage 1 round of a Centralized TCC Auction sub-auction in which TCCs with durations longer than 6 months are sold, 0; or (iii) for Reconfiguration Auction *n*, the sum of the total O/R-t-S Auction Revenue Shortfall Charges (O/R-t-S ARSC$_{a,t,n}$), U/D Auction Revenue Shortfall Charges (U/D ARSC$_{a,t,n}$), O/R-t-S Auction Revenue Surplus Payments (O/R-t-S ARSP$_{a,t,n}$), and U/D Auction Revenue Surplus Payments (U/D ARSP$_{a,t,n}$) for all Transmission Owners *t* (which sum is calculated for each Transmission Owner as NetAuctionAllocations$_{t,n}$ pursuant to Formula B-27), reduced by any zeroing out of such charges or payments pursuant to Section 3.6.5

The ISO shall allocate the Net Auction Revenue calculated in each round of a Centralized TCC Auction sub-auction and in each Reconfiguration Auction to Transmission Owners pursuant to Section 3.7.

Section 3.2. Charges for TCCs Purchased

All bidders awarded TCCs in round *n* of a Centralized TCC Auction or in Reconfiguration Auction *n* shall pay or be paid the market clearing price in round *n* or in Reconfiguration Auction *n*, as determined pursuant to Part IV of this Attachment B, for the TCCs purchased.

Section 3.3. Payments for ETCNL

The ISO shall, in each round of a Centralized TCC Auction in which ETCNL is released, pay the market clearing price determined in that round for TCCs that correspond to that ETCNL to the Transmission Owner that releases the ETCNL.

If a Transmission Owner releases ETCNL for sale in a round of the Centralized TCC Auction, and the market-clearing price for those TCCs corresponding to that ETCNL in that round is negative, the value of those TCCs will not be included in the determination of payments to the Transmission Owners for ETCNL released into the Centralized TCC Auction. If the market-clearing price is negative for TCCs corresponding to any ETCNL, the value will be set to zero for purposes of allocating auction revenues from the sale of ETCNL. If the total value of

the auction revenues available for payment to the Transmission Owners for ETCNL released into the Centralized TCC Auction is insufficient to fund payments at market-clearing prices, the total payments to each Transmission Owner for ETCNL will be reduced proportionately. Notwithstanding any other provision in this Tariff, ETCNL that is offered in any Centralized TCC Auction and that is assigned a negative market clearing price or value shall not give rise to a payment obligation by the Transmission Owner that released it.

Section 3.4. Payments to Primary Holders Selling TCCs; Distribution of Revenues from Sale of Certain Grandfathered TCCs (excluding ETCNL) in a Centralized TCC Auction

The ISO shall distribute to or collect from each Primary Holder of a TCC selling that TCC in the Centralized TCC Auction or Reconfiguration Auction the market clearing price of that TCC in the round of the Centralized TCC Auction or in the Reconfiguration Auction in which that TCC was sold.

In the event a Grandfathered TCC[3] is terminated by mutual agreement of the parties to the grandfathered ETA prior to the conditions specified within Attachments K and L of the ISO OATT, then the ISO shall distribute the revenues from the sale of the TCCs that correspond to the terminated Grandfathered TCCs in a round of a Centralized TCC Auction directly back to the Transmission Owner identified in Attachment L of the ISO OATT,

[3] These TCCs include TCCs, if any, associated with those rate schedules to which footnote 9 of Attachment L of the ISO OATT pertains, whether by mutual agreement or otherwise.

until such time as the conditions specified within Attachments K and L of the ISO OATT are met. Upon such time that the conditions within Attachments K and L of the ISO OATT are met, the ISO shall allocate the revenues from the sale of the TCCs that correspond to terminated Grandfathered TCCs in the Centralized TCC Auction as Net Auction Revenues in accordance with Section 3.7 of this Part V of this Attachment B.

Section 3.5. Allocation of Revenues from the Sale of Original Residual TCCs

Revenues associated with Original Residual TCCs shall be distributed directly to each Primary Owner for the duration of the LBMP Transition Period. The Primary Owner of such an Original Residual TCC shall be paid the market clearing price of the Original Residual TCC in the round of the sub-auction in which that Original Residual TCC was sold.

If a Transmission Owner releases an Original Residual TCC for sale in a round of the Centralized TCC Auction, and the market-clearing price for those TCCs in that round is negative, the value of those TCCs will not be included in the determination of payments to the Transmission Owners for Original Residual TCCs released into the Centralized TCC Auction. If the market-clearing price is

negative for any Original Residual TCC, the value will be set to zero for purposes of allocating auction revenues from the sale of Residual TCCs. If the total value of the auction revenues available for payment to the Transmission Owners for Original Residual TCCs released into the Centralized TCC Auction is insufficient to fund payments at market-clearing prices, the total payments to each Transmission Owner for Original Residual TCCs will be reduced proportionately. This proportionate reduction would include a reduction in payments reflecting a proportionate reduction in the auction value of Original Residual TCCs sold in a Direct Sale. Notwithstanding any other provision in this Tariff, Original Residual TCCs that are offered in any Centralized TCC Auction and that are assigned a negative market clearing price or value shall not give rise to a payment obligation by the Transmission Owner that released them.

Section 3.6. Charges and Payments to Transmission Owners for Auction Outages and Returns-to-Service

The ISO shall charge O/R-t-S Auction Revenue Shortfall Charges and U/D Auction Revenue Shortfall Charges and pay O/R-t-S Auction Revenue Surplus Payments and U/D Auction Revenue Surplus Payments pursuant to this Section 3.6. To do so, the ISO shall calculate the Auction Constraint Residual for each constraint for each stage 1 round *n* of a Centralized TCC Auction 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, pursuant to Section 3.6.1 and then determine the amount of each Auction Constraint Residual that is O/R-t-S Auction Constraint Residual and the amount that is U/D Auction Constraint Residual, as specified in Section 3.6.1. The ISO shall use the O/R-t-S Auction Constraint Residual to allocate O/R-t-S Auction Revenue Shortfall Charges and O/R-t-S Auction Revenue

Surplus Payments to Transmission Owners pursuant to Sections 3.6.2 and 3.6.4, each of which shall be subject to being reduced to zero pursuant to Section 3.6.5. The ISO shall use the U/D Auction Constraint Residual to allocate U/D Auction Revenue Shortfall Charges and U/D Auction Revenue Surplus Payments to Transmission Owners pursuant to Sections 3.6.3 and 3.6.4, each of which shall be subject to being reduced to zero pursuant to Section 3.6.5.

The ISO shall not calculate an Auction Constraint Residual, O/R-t-S Auction Constraint Residual, or U/D Auction Constraint Residual for any rounds of a Centralized TCC Auction except for stage 1 rounds of the 6-month sub-auction.

Section 3.6.1. Measuring the Impact of Auction Outages and Returns-to-Service: Calculation of Auction Constraint Residuals and Division of Auction Constraint Residuals into O/R-t-S Auction Constraint Residuals and U/D Auction Constraint Residuals

The ISO shall identify all constraints that are binding in the final Optimal Power Flow solution for stage 1 round *n* of a 6-month sub-auction of a Centralized TCC Auction or for Reconfiguration Auction *n*, as the case may be. For each binding constraint *a* and for each stage 1 round *n* of a 6-month sub-auction of a Centralized TCC Auction or Reconfiguration Auction *n*, the ISO shall calculate the Auction Constraint Residual, $ACR_{a,n}$, using Formula B-17; ***provided, however***, the ISO shall recalculate $ACR_{a,n}$ using Formula B-18 if (i) $ACR_{a,n}$ is positive based on the calculation using Formula B-17, and (ii) constraint *a* was not binding in the Power Flow used to determine the Energy flow on constraint *a* in calculating the variable $FLOW_{a,n,basecase}$ in Formula B-17.

Formula B-17

$$ACR_{a,n} = ShadowPrice_{a,n} * \left[\begin{array}{l} \left(FLOW_{a,n,actual} - FLOW_{a,n,basecase}\right) \\ + \left(ISORatingChange_{a,n} * OPFSignChange_{a,n}\right) \end{array} \right] * \%Sold_{n}$$

Where,

$ACR_{a,n}$ = The Auction Constraint Residual, in dollars, for binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*

$ShadowPrice_{a,n}$ = The Shadow Price, in dollars/MW-*p*, of binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, where *p* is a one-month period for Reconfiguration Auction *n* and *p* is a six-month period for stage 1 round *n* of a 6-month sub-auction, which Shadow Price is calculated in a manner so that if relaxation of constraint *a* would permit an increase in the objective function used for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* as described in Part IV of this Attachment B, then $ShadowPrice_{a,n}$ is positive

$FLOW_{a,n,actual}$ = The Energy flow, in MW-*p*, on binding constraint *a* resulting from a Power Flow using, as the case may be:

(a) For Reconfiguration Auction *n*, (i) the Transmission System model for Reconfiguration Auction *n*, (ii) the set of TCCs and Grandfathered Rights represented in the solution to Reconfiguration Auction *n* (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction), and (iii) the phase angle regulator schedules determined in the Optimal Power Flow solution for Reconfiguration Auction *n*; or

(b) For stage 1 round *n* of a 6-month sub-auction, (i) the Transmission System model for stage 1 round *n*, (ii) the set of TCCs (scaled appropriately) and Grandfathered Rights represented in the solution to stage 1 round *n* (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction), and (iii) the phase angle regulator schedule produced in the Optimal Power Flow solution for stage 1 round *n*

$FLOW_{a,n,basecase}$ = The Energy flow, in MW-*p*, on binding constraint *a* produced in, as the case may be:

(a) For Reconfiguration Auction *n*, a Power Flow using the following base case data set: (i) the Transmission System model for Reconfiguration Auction *n*, (ii) the set of TCCs and Grandfathered Rights represented in the solution to the final round of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n* (including those pre-existing TCCs

(including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction), and (iii) the phase angle regulator schedules determined in the Optimal Power Flow solution for the final round of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; or

(b) For stage 1 round *n* of a 6-month sub-auction, a Power Flow run using the following base case data set: (i) the Transmission System model for the actual 6-month sub-auction, and (ii) the base case set of TCCs (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in the simulated auction) and the phase angle regulator schedule produced in a single simulated TCC auction administered for all stage 1 rounds of the 6-month sub-auction using the Transmission System model for the actual 6-month sub-auction modified so as to model as in-service all transmission facilities that were out-of-service in the Transmission System model used for the sub-auction and model as fully rated all transmission facilities that were derated in the Transmission System model used for the sub-auction, the pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in the sub-auction, and all bids to purchase and offers to sell made into all stage 1 rounds of the sub-auction that includes round *n*

$ISORatingChange_{a,n}$ = The total change in the rating of constraint *a* for stage 1 round *n* or Reconfiguration Auction *n* resulting from ISO-Directed Auction Status Changes or Deemed ISO-Directed Auction Status Changes described in Section 3.6.4.2, external events described in Section 3.6.4.3, or reasons determined by the ISO to be unrelated to Qualifying Auction Outages or Qualifying Auction Returns-to-Service for stage 1 round *n* or Reconfiguration Auction *n*, which shall be calculated as follows:

(a) For Reconfiguration Auction *n*, zero, except that in the event of a change in the rating of constraint *a* resulting from ISO-Directed Auction Status Changes or Deemed ISO-Directed Auction Status Changes described in Section 3.6.4.2, external events described in Section 3.6.4.3, or reasons determined by the ISO to be unrelated to Qualifying Auction Outages or Qualifying Auction Returns-to-Service for stage 1 round *n* or Reconfiguration Auction *n*, $ISORatingChange_{a,n}$ shall be equal to the amount, in MW-*p*, of the change in the rating limit of constraint *a* as shown in the Reconfiguration Auction Interface Uprate/Derate Table applicable for Reconfiguration Auction *n*

(b) For stage 1 round *n* of a 6-month sub-auction, zero, except that in the event of a change in the rating of a transmission facility resulting from ISO-Directed Auction Status Changes or Deemed ISO-Directed Auction Status Changes described in Section 3.6.4.2, external events described in Section 3.6.4.3, or reasons determined by the ISO to be unrelated to Qualifying Auction Outages or Qualifying Auction Returns-to-Service for stage 1 round *n* or Reconfiguration Auction *n*, $ISORatingChange_{a,n}$ shall be equal to the amount, in MW-*p*, of the change in the rating limit of constraint *a* as shown in the Centralized TCC Auction Interface Uprate/Derate Table applicable for stage 1 round *n*

$OPFSignChange_{a,n}$= 1 if $ShadowPrice_{a,n}$ is greater than zero; otherwise, -1

$\%Sold_n$ = Either (i) for stage 1 round *n* of a 6-month sub-auction, the percentage of transmission Capacity sold in stage 1 round *n*, divided by the percentage of transmission Capacity sold in all stage 1 rounds of the sub-auction of which stage 1 round *n* is a part; or (ii) for Reconfiguration Auction *n*, 1.

Formula B-18

$$ACR_{a,n} = ShadowPrice_{a,n} * \left[\begin{array}{l} \left(FLOW_{a,n,actual} - FLOW_{a,n,base case}\right) \\ + \left(ISORatingChange_{a,n} * OPFSignChange_{a,n}\right) \\ - \left(UnsoldCapacity_{a,n,PriorAuction} * OPFSignChange_{a,n}\right) \end{array} \right] * \%Sold_n$$

Where,

$UnsoldCapacity_{a,n,PriorAuction}$ = Either:

(a) For Reconfiguration Auction *n*, the rating limit for binding constraint *a* applied in the model used in the last Centralized TCC Auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*, minus the Energy flow, in MW-*p*, on binding constraint *a* produced in the Optimal Power Flow in the last round of that Centralized TCC Auction; or

(b) For stage 1 round *n* of a 6-month sub-auction, the rating limit for binding constraint *a* applied in the model used in the simulated auction run to determine $FLOW_{a,n,basecase}$ in Formula B-17, minus the Energy flow, in MW-*p*, on binding constraint *a* produced in the Optimal Power Flow in the simulated auction run to determine $FLOW_{a,n,basecase}$ in Formula B-17

and each of the other variables is as set forth in Formula B-17; *provided, however*, if $ACR_{a,n}$ is less than zero when calculated using this Formula B-18, $ACR_{a,n}$ shall be set equal to zero.

Following calculation of the Auction Constraint Residual for each constraint *a* for each stage 1 round *n* of a 6-month sub-auction or each Reconfiguration Auction *n*, the ISO shall calculate the amount of each O/R-t-S Auction Constraint Residual and the amount of each U/D Auction Constraint Residual for each constraint *a* for each stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be. The amount of each O/R-t-S Auction Constraint Residual for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, for constraint *a* shall be determined by applying Formula B-19. The amount of each U/D Auction Constraint Residual for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, for constraint *a* shall be determined by applying Formula B-20.

Formula B-19

$$\text{O/R-t-S ACR}_{a,n} = \text{ACR}_{a,n} * \left[\frac{\left(\text{FLOW}_{a,n,actual} - \text{FLOW}_{a,n,base\ case}\right) + \left(\text{TotalRatingChange}_{a,n} * \text{OPFSignChange}_{a,n}\right)}{\left(\text{FLOW}_{a,n,actual} - \text{FLOW}_{a,n,base\ case}\right) + \left(\text{ISORatingChange}_{a,n} * \text{OPFSignChange}_{a,n}\right)} \right]$$

Where:

$\text{O/R-t-S ACR}_{a,n}$ = The amount of the O/R-t-S Auction Constraint Residual for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, for constraint *a*

$\text{TotalRatingChange}_{a,n}$ = The total change in the rating of constraint *a*, which shall be calculated as follows:

(a) For Reconfiguration Auction *n*, $\text{TotalRatingChange}_{a,n}$ shall be equal to (1) the rating limit, in MW-*p*, of constraint *a* in the last Centralized TCC Auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*, minus (2) the rating limit, in MW-*p*, of constraint *a* applicable in Reconfiguration Auction *n*

(b) For stage 1 round *n* of a 6-month sub-auction, $\text{TotalRatingChange}_{a,n}$ shall be equal to (1) the rating limit, in MW-*p*, of constraint *a* in a case where all transmission facilities are in-service and fully rated, minus (2) the rating limit, in MW-*p*, of constraint *a* in stage 1 round *n*

and the variable $\text{ACR}_{a,n}$ is as calculated pursuant to Formula B-17 or, if required, pursuant to Formula B-18, and each of the other variables are as defined in Formula B-17.

Formula B-20

$$\text{U/D ACR}_{a,n} = \text{ACR}_{a,n} * \left[\frac{-\left(\text{TotalRatingChange}_{a,n} - \text{ISORatingChange}_{a,n}\right) * \text{OPFSignChange}_{a,n}}{\left(\text{FLOW}_{a,n,\text{actual}} - \text{FLOW}_{a,n,\text{basecase}}\right) + \left(\text{ISORatingChange}_{a,n} * \text{OPFSignChange}_{a,n}\right)} \right]$$

Where,

$\text{U/D ACR}_{a,n}$ = The amount of the U/D Auction Constraint Residual for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, for constraint *a*

and the variable $\text{ACR}_{a,n}$ is as calculated pursuant to Formula B-17 or, if required, pursuant to Formula B-18, the variable $\text{TotalRatingChange}_{a,n}$ is defined as set forth in Formula B-19 and each of the other variables are defined as set forth in Formula B-17.

Section 3.6.2. Charges and Payments for the Direct Impact of Auction Outages and Returns-to-Service

The ISO shall use O/R-t-S Auction Constraint Residuals to allocate O/R-t-S Auction Revenue Shortfall Charges and O/R-t-S Auction Revenue Surplus Payments, as the case may be, among Transmission Owners pursuant to this Section 3.6.2. Each O/R-t-S Auction Revenue Shortfall Charge and each O/R-t-S Auction Revenue Surplus Payment allocated to a Transmission Owner pursuant to this Section 3.6.2 is subject to being set equal to zero pursuant to Section 3.6.5.

Section 3.6.2.1. Identification of Outages and Returns-to-Service Qualifying for Charges and Payments

For each stage 1 round of a 6-month sub-auction or Reconfiguration Auction, as the case may be, the ISO shall identify each Qualifying Auction Outage and each Qualifying Auction Return-to-Service, as described below. The Transmission Owner responsible, as determined pursuant to Section 3.6.4, for the Qualifying Auction Outage or Qualifying Auction Return-to-Service shall be allocated an O/R-t-S Auction Revenue Shortfall Charge or an O/R-t-S Auction Revenue Surplus Payment pursuant to Sections 3.6.2.2 or 3.6.2.3.

Section 3.6.2.1.1. Definition of Qualifying Auction Outage

A "**Qualifying Auction Outage**" (which term shall apply to stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be) shall be defined to mean either an Actual Qualifying Auction Outage or a Deemed Qualifying Auction Outage. For purposes of this Part V of this Attachment B, "*o*" shall refer to a single Qualifying Auction Outage.

An "**Actual Qualifying Auction Outage**" (which term shall apply to stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be) shall be defined as a transmission facility that, for a given stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be:

(a) For Reconfiguration Auction *n,* meets each of the following requirements:

(i) the facility existed and was modeled as in-service in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; and

(ii) the facility exists but is not modeled as in-service for Reconfiguration Auction *n*;

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; or

(b) For stage 1 round *n* of a 6-month sub-auction, meets each of the following requirements:

(i) the facility exists but is not modeled as in-service for stage 1 round *n* of a 6-month sub-auction; and

(ii) the facility was not Normally Out-of-Service Equipment at the time of stage 1 round *n* of that 6-month sub-auction.

A "**Deemed Qualifying Auction Outage**" (which term shall apply only to a Reconfiguration Auction *n*) shall be defined as a transmission facility that, for Reconfiguration Auction *n*, meets each of the following requirements:

(i) the facility existed but was not modeled as in-service in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(ii) the facility existed but was not modeled as in-service in Reconfiguration Auction *n* as a result of an Auction Status Change or external event described in Section 3.6.4.3 in Reconfiguration Auction *n* for which responsibility was assigned pursuant to Section 3.6.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to 3.6.4) other than the Transmission Owner assigned responsibility for the facility not being modeled as in-service in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*.

Section 3.6.2.1.2. Definition of Qualifying Auction Return-to-Service

A "**Qualifying Auction Return-to-Service**" shall be defined to mean either an Actual Qualifying Auction Return-to-Service or a Deemed Qualifying Auction Return-to-Service. For purposes of this Part V of this Attachment B, "*o*" shall refer to a single Qualifying Auction Return-to-Service.

An "**Actual Qualifying Auction Return-to-Service**" shall be defined as a transmission facility that, for a given Reconfiguration Auction *n*, meets each of the following requirements:

(i) the facility existed but was not modeled as in-service for the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; and

(ii) the facility exists and is modeled as in-service in Reconfiguration Auction *n*;

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*.

Notwithstanding any other provision of this Part V of this Attachment B, a transmission facility returning to service for stage 1 round *n* of a 6-month sub-auction shall not be an Actual Qualifying Auction Return-to-Service for that stage 1 round *n* and shall not qualify a Transmission Owner for an O/R-t-S Auction Revenue Shortfall Charge or O/R-t-S Auction Revenue Surplus Payment for that stage 1 round *n*.

A "**Deemed Qualifying Auction Return-to-Service**" shall be defined as a transmission facility that, for a given Reconfiguration Auction *n*, meets each of the following requirements:

(i) the facility existed but was not modeled as in-service in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(ii) the facility existed but was not modeled as in-service in Reconfiguration Auction *n* as a result of an Auction Status Change or external event described in Section 3.6.4.3 in Reconfiguration Auction *n* for which responsibility was assigned pursuant to Section 3.6.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 3.6.4) other than the Transmission Owner assigned responsibility for the facility not being modeled as in-service for the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; and

(iii) the facility was not Normally Out-of-Service Equipment at the time of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*.

Section 3.6.2.2. Allocation of an O/R-t-S Auction Constraint Residual When Only One Transmission Owner is Responsible for All of the Relevant Outages and Returns-to-Service

This Section 3.6.2.2 describes the allocation of an O/R-t-S Auction Constraint Residual for a given stage 1 round of a 6-month sub-auction or Reconfiguration Auction, as the case may be, and a given constraint when only one Transmission Owner is responsible, as determined pursuant to Section 3.6.4, for all of the Qualifying Auction Outages and all of the Qualifying Auction Returns-to-Service for that stage 1 round of a 6-month sub-auction or Reconfiguration Auction that contribute to that constraint.

If the same Transmission Owner is responsible, as determined pursuant to Section 3.6.4, for all of the Qualifying Auction Outages *o* and Qualifying Auction Returns-to-Service *o* for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* that contribute to constraint *a*, then the ISO shall allocate the O/R-t-S Auction Constraint Residual for that stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* and that constraint, O/R-t-S $ACR_{a,n}$, to that Transmission Owner in the form of either (i) an O/R-t-S Auction Revenue Shortfall Charge in the amount of O/R-t-S $ACR_{a,n}$ if O/R-t-S $ACR_{a,n}$ is negative, or (ii) an O/R-t-S Auction Revenue Surplus Payment in the amount of O/R-t-S $ACR_{a,n}$ if O/R-t-S $ACR_{a,n}$ is positive.

Section 3.6.2.3. Allocation of an O/R-t-S Auction Constraint Residual When More Than One Transmission Owner is Responsible for the Relevant Outages and Returns-to-Service

This Section 3.6.2.3 describes the allocation of an O/R-t-S Auction Constraint Residual for a given stage 1 round of a 6-month sub-auction or Reconfiguration Auction, as the case may be, and a given constraint when more than one Transmission Owner is responsible, as determined pursuant to Section 3.6.4, for the Qualifying Auction Outages and the Qualifying Auction Returns-to-Service for that stage 1 round of a 6-month sub-auction or Reconfiguration Auction that contribute to that constraint.

If more than one Transmission Owner is responsible, as determined pursuant to Section 3.6.4, for the Qualifying Auction Outages and the Qualifying Auction Returns-to-Service for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* that contribute to constraint *a*, the ISO shall allocate the O/R-t-S Auction Constraint Residual for constraint *a* for stage 1 round *n* of a 6-month sub-auction or for Reconfiguration Auction *n*, O/R-t-S $ACR_{a,n}$, in the form of an O/R-t-S Auction Revenue Shortfall Charge or O/R-t-S Auction Revenue Surplus Payment to the Transmission Owners responsible for the Qualifying Auction Outages *o* and Qualifying Auction Returns-to-Service *o* for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* by first determining the net total impact on the constraint of all Qualifying Auction Outages and Qualifying Auction Returns-to Service for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* with an impact on the Energy flow across that constraint of 1 MW-*p* or more by applying Formula B-21, and then applying either Formula B-22 or Formula B-23, as specified herein, to assess O/R-t-S Auction Revenue Shortfall Charges and O/R-t-S Auction Revenue Surplus Payments.

Formula B-21

$$\text{O/R-t-SNetAuctionImpact}_{a,n} = \sum_{\text{for all } o \in O_n} \text{FlowImpact}_{a,n,o} * \text{ShadowPrice}_{a,n}$$

Where,

$\text{O/R-t-SNetAuctionImpact}_{a,n}$ = The net impact, in dollars, for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, on constraint *a* of all Qualifying Auction Outages and Qualifying Auction Returns-to-Service for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* having an impact of more than 1 MW-*p* on Energy flow across constraint *a; provided, however,* $\text{O/R-t-S NetAuctionImpact}_{a,n}$ shall be subject to recalculation as specified in the paragraph immediately following this Formula B-21

$FlowImpact_{a,n,o}$ = The Energy flow impact, in MW-*p*, of a Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* on binding constraint *a* determined for Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, which shall either:

(a) if Qualifying Auction Outage *o* is a Deemed Qualifying Auction Outage, be equal to the negative of $FlowImpact_{a,n,o}$ calculated for the corresponding Deemed Qualifying Auction Return-to-Service as described in part (b) of this definition of $FlowImpact_{a,n,o}$, or

(b) if Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* is an Actual Qualifying Auction Outage, an Actual Qualifying Auction Return-to-Service, or a Deemed Qualifying Auction Return-to-Service, be calculated pursuant to the following formula:

$$FlowImpact_{a,n,o} = BaseCaseFlow_{a,n} - One\text{-}OffFlow_{a,n,o}$$

Where,

$BaseCaseFlow_{a,n}$ = Either, as the case may be:

(i) for a Reconfiguration Auction, the Energy flow on constraint *a* resulting from a Power Flow using (1) the set of injections and withdrawals corresponding to the actual TCCs and Grandfathered Rights represented in the solution to the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n* (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction); (2) the phase angle regulator schedule determined in the Optimal Power Flow solution for the final round of the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; and (3) the Transmission System model for the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*; or

(ii) for any round of a 6-month sub-auction, the Energy flow on constraint *a* resulting from a Power Flow run using the following base case data set: (1) the Transmission System model for the actual 6-month sub-auction, modified so as to model as in-service all transmission facilities that were out-of-service for the actual 6-month sub-auction, and (2) the set of injections and withdrawals corresponding to the base case set of TCCs (including those pre-existing TCCs and Grandfathered Rights that are represented as fixed injections and withdrawals in the 6-month sub-auction) and the phase angle regulator schedule produced in the Optimal Power Flow used to calculate the Energy flow on constraint *a* for stage 1 round *n* of a 6-month sub-auction, as described in the definition of $FLOW_{a,n,basecase}$ in Formula B-17

$One\text{-}OffFlow_{a,n,o}$ = Either

(i) if Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* is an Actual Qualifying Auction Outage or an Actual Qualifying Auction Return-to-Service, the Energy flow on constraint *a* resulting from a Power Flow using each element of the base case data set used in the calculation of $BaseCaseFlow_{a,n}$ above (*provided, however*, if a transmission facility was modeled as free-flowing in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, as the case may be, because of the outage of any transmission facility, the ISO shall appropriately adjust the phase angle regulator schedule and related variables to model the transmission facility as free flowing), but in each case with the Transmission System model modified so as to, as the case may be, either (i) model as out-of-service Actual Qualifying Auction Outage *o*, or (ii) model as in-service Actual Qualifying Auction Return-to-Service *o*; or

(ii) if Qualifying Auction Return-to-Service *o* is a Deemed Qualifying Auction Return-to-Service, the Energy flow on constraint *a* resulting from a Power Flow using each element of the base case data set used in the calculation of $BaseCaseFlow_{a,n}$

above (*provided, however*, if a transmission facility was modeled as free-flowing in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, as the case may be, because of the outage of any transmission facility, the ISO shall appropriately adjust the phase angle regulator schedule and related variables to model the transmission facility as free flowing), but with the Transmission System model modified so as to model as in-service the facility that is Deemed Qualifying Auction Return-to-Service *o*;

provided, however, where the absolute value of $\text{FlowImpact}_{a,n,o}$ calculated using the procedures set forth above is less than 1 MW-*p*, then $\text{FlowImpact}_{a,n,o}$ shall be set equal to zero

provided further, $\text{FlowImpact}_{a,n,o}$ shall be subject to being set equal to zero as specified in the paragraph immediately following this Formula B-21

O_n = The set of all Qualifying Auction Outages *o* and Qualifying Auction Returns-to-Service *o* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*

p = A one-month period for Reconfiguration Auction *n*, or a six-month period for stage 1 round *n* of a 6-month sub-auction

and the variable $\text{ShadowPrice}_{a,n}$ is defined as set forth in Formula B-17.

After calculating O/R-t-S $\text{NetAuctionImpact}_{a,n}$ pursuant to Formula B-21, the ISO shall determine whether O/R-t-S $\text{NetAuctionImpact}_{a,n}$ for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* has a different sign than O/R-t-S $\text{ACR}_{a,n}$ for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*. If the sign is different, the ISO shall (i) recalculate O/R-t-S $\text{NetAuctionImpact}_{a,n}$ pursuant to Formula B-21 after setting equal to zero each $\text{FlowImpact}_{a,n,o}$ for which $\text{FlowImpact}_{a,n,o} * \text{ShadowPrice}_{a,n}$ has a different sign than O/R-t-S $\text{ACR}_{a,n}$, and then (ii) use this recalculated O/R-t-S $\text{NetAuctionImpact}_{a,n}$ and reset value of $\text{FlowImpact}_{a,n,o}$ to allocate O/R-t-S Auction Revenue Shortfall Charges and O/R-t-S Auction Revenue Surplus Payments pursuant to Formula B-22 or Formula B-23, as specified below.

If the absolute value of the net impact (O/R-t-S $NetAuctionImpact_{a,n}$) on constraint *a* of all Qualifying Auction Outages and Qualifying Auction Returns-to-Service for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* as calculated using Formula B-21 (or recalculated pursuant to Formula B-21 using a reset value of $FlowImpact_{a,n,o}$ as described in the prior paragraph) is greater than the absolute value of the O/R-t-S Auction Constraint Residual (O/R-t-S $ACR_{a,n}$) for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, then the ISO shall allocate the O/R-t-S Auction Constraint Residual in the form of an O/R-t-S Auction Revenue Shortfall Charge, O/R-t-S $ARSC_{a,t,n}$, or O/R-t-S Auction Revenue Surplus Payment, O/R-t-S $ARSP_{a,t,n}$, by using Formula B-22. If the absolute value of the net impact (O/R-t-S $NetAuctionImpact_{a,n}$) on constraint *a* of all Qualifying Auction Outages and Qualifying Auction Returns-to-Service for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* as calculated using Formula B-21 (or recalculated pursuant to Formula B-21 using a reset value of $FlowImpact_{a,n,o}$ as described in the prior paragraph) is less than or equal to the absolute value of the O/R-t-S Auction Constraint Residual (O/R-t-S $ACR_{a,n}$) for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, then the ISO shall allocate the O/R-t-S Auction Constraint Residual in the form of an O/R-t-S Auction Revenue Shortfall Charge, O/R-t-S $ARSC_{a,t,n}$, or O/R-t-S Auction Revenue Surplus Payment, O/R-t-S $ARSP_{a,t,n}$, by using Formula B-23.

Formula B-22

$$\text{O/R-t-S Allocation}_{a,t,n} = \left(\frac{\sum_{\substack{o \in O_n \\ \text{and } q=t}} \left(\text{FlowImpact}_{a,n,o} * \text{Responsibility}_{n,q,o} \right)}{\sum_{\text{for all } o \in O_n} \text{FlowImpact}_{a,n,o}} \right) * \text{O/R-t-S ACR}_{a,n}$$

Where,

$\text{O/R-t-S Allocation}_{a,t,n}$ = Either an O/R-t-S Auction Revenue Shortfall Charge or an O/R-t-S Auction Revenue Surplus Payment, as specified in (a) and (b) below:

(a) If $\text{O/R-t-S Allocation}_{a,t,n}$ is negative, then $\text{O/R-t-S Allocation}_{a,t,n}$ shall be an O/R-t-S Auction Revenue Shortfall Charge, $\text{O/R-t-S ARSC}_{a,t,n}$, charged to Transmission Owner *t* for binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction; or

(b) If $\text{O/R-t-S Allocation}_{a,t,n}$ is positive, then $\text{O/R-t-S Allocation}_{a,t,n}$ shall be an O/R-t-S Auction Revenue Surplus Payment, $\text{O/R-t-S ARSP}_{a,t,n}$, paid to Transmission Owner *t* for binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction

$\text{Responsibility}_{n,q,o}$ = The amount, as a percentage, of responsibility borne by Transmission Owner *q* (which shall include the ISO when it is deemed a Transmission Owner for the purpose of applying Sections 3.6.4.2 or 3.6.4.3) for Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, as determined pursuant to Section 3.6.4

and the variable $\text{O/R-t-S ACR}_{a,n}$ is defined as set forth in Formula B-19 and the variables $\text{FlowImpact}_{a,n,o}$ and O_n are defined as set forth in Formula B-21.

Formula B-23

$$\text{O/R-t-S Allocation}_{a,t,n} = \sum_{\substack{o \in O_n \\ \text{and } q=t}} \text{FlowImpact}_{a,n,o} * \text{ShadowPrice}_{a,n} * \text{Responsibility}_{n,q,o}$$

Where,

the variable $\text{ShadowPrice}_{a,n}$ is defined as set forth in Formula B-17, the variables $\text{O/R-t-S Allocation}_{a,t,n}$ and $\text{Responsibility}_{n,q,o}$ are defined as set forth in Formula B-22, and the variables $\text{FlowImpact}_{a,n,o}$ and O_n are defined as set forth in Formula B-21.

Section 3.6.3. Charges and Payments for the Secondary Impact of Auction Outages and Returns-to-Service

The ISO shall use U/D Auction Constraint Residuals to allocate U/D Auction Revenue Shortfall Charges and U/D Auction Revenue Surplus Payments, as the case may be, among Transmission Owners pursuant to this Section 3.6.3. Each U/D Auction Revenue Shortfall Charge and each U/D Auction Revenue Surplus Payment allocated to a Transmission Owner pursuant to this Section 3.6.3 is subject to being set equal to zero pursuant to Section 3.6.5.

Section 3.6.3.1. Identification of Upratings and Deratings Qualifying for Charges and Payments

For each constraint for each stage 1 round of a 6-month sub-auction or Reconfiguration Auction, the ISO shall identify each Qualifying Auction Derating and each Qualifying Auction Uprating, as described below. The Transmission Owner responsible, as determined pursuant to Section 3.6.4, for a Qualifying Auction Derating or Qualifying Auction Uprating shall be allocated a U/D Auction Revenue Shortfall Charge or a U/D Auction Revenue Surplus Payment, as the case may be, pursuant to Section 3.6.3.2.

Section 3.6.3.1.1. Definition of Qualifying Auction Derating

A "**Qualifying Auction Derating**" (which term shall apply to stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be) shall be defined to mean an Actual Qualifying Auction Derating or a Deemed Qualifying Auction Derating. For purposes of this Part V of this Attachment B, "*r*" shall refer to a single Qualifying Auction Derating.

An "**Actual Qualifying Auction Derating**" (which term shall apply to stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be) shall be defined as a change in the rating of a constraint that, for a given constraint *a* and a given stage 1 round *n* or Reconfiguration Auction *n* meets each of the following requirements:

For Reconfiguration Auction *n*:

(i) the constraint has a lower rating in Reconfiguration Auction *n* than it would have if all transmission facilities were modeled as in-service in Reconfiguration Auction *n*;

(ii) this lower rating is in whole or in part the result of an Actual Qualifying Auction Outage *o* or an Actual Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n*;

(iii) the lower rating resulting from Actual Qualifying Auction Outage *o* or Actual Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n* was not modeled in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(iv) this lower rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction *n*; and

(v) the constraint was binding in Reconfiguration Auction *n*.

For stage 1 round *n* of a 6-month sub-auction:

(i) the constraint has a lower rating in stage 1 round *n* of the 6-month sub-auction than that constraint would have in a case where all transmission facilities are in-service and fully rated;

(ii) this lower rating is the result of an Actual Qualifying Auction Outage *o* or Actual Qualifying Auction Return-to-Service *o* for stage 1 round *n* of the 6-month sub-auction;

(iii) this lower rating is included in the Centralized TCC Auction Interface Uprate/Derate Table in effect for stage 1 round *n* of the 6-month sub-auction; and

(iv) the constraint is binding in stage 1 round *n* of the 6-month sub-auction.

A "**Deemed Qualifying Auction Derating**" (which term shall apply to Reconfiguration Auction *n*) shall be defined as a change in the rating of a constraint that, for a given constraint *a* and a given Reconfiguration Auction *n* meets each of the following requirements:

(i) the constraint has a lower rating in Reconfiguration Auction *n* than it would have if all transmission facilities were modeled as in-service in Reconfiguration Auction *n*;

(ii) this lower rating is in whole or in part the result of a Deemed Qualifying Auction Outage *o* or Deemed Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n*;

(iii) this lower rating resulting from Deemed Qualifying Auction Outage *o* or Deemed Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n* was modeled in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*, but responsibility for Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* resulting in the lower rating for Reconfiguration Auction *n* is assigned pursuant to Section 3.6.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 3.6.4) other than the Transmission Owner responsible for the lower rating in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(iv) this lower rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction *n*; and

(v) the constraint is binding in Reconfiguration Auction *n*.

Section 3.6.3.1.2. Definition of Qualifying Auction Uprating

A "**Qualifying Auction Uprating**" shall be defined to mean either an Actual Qualifying Auction Uprating or a Deemed Qualifying Auction Uprating. For purposes of this Part V of this Attachment B, "*r*" shall refer to a single Qualifying Auction Uprating.

An "**Actual Qualifying Auction Uprating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* and Reconfiguration Auction *n*, as the case may be, meets each of the following requirements:

(i) the constraint has a higher rating for Reconfiguration Auction *n* than it would have absent an Actual Qualifying Auction Outage *o* or Actual Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n*;

(ii) this higher rating resulting from Actual Qualifying Auction Outage *o* or Actual Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n* was not modeled in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*;

(iii) this higher rating is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction *n*; and

(iv) the constraint is binding in Reconfiguration Auction *n*.

Notwithstanding any other provision of this Part V of this Attachment B, a transmission facility uprating for a stage 1 round of a 6-month sub-auction shall not be a Qualifying Auction Uprating and shall not qualify a Transmission Owner for a U/D Auction Revenue Shortfall Charge or U/D Auction Revenue Surplus Payment.

A "**Deemed Qualifying Auction Uprating**" shall be defined as a change in the rating of a constraint that, for a given constraint *a* and Reconfiguration Auction *n*, as the case may be, meets each of the following requirements:

(i) the constraint has a lower rating in Reconfiguration Auction *n* than it would have if all transmission facilities were modeled as in-service in Reconfiguration Auction *n*;

(ii) this lower rating is in whole or in part the result of a Deemed Qualifying Auction Outage *o* or Deemed Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n*;

(iii) this lower rating resulting from Deemed Qualifying Auction Outage *o* or Deemed Qualifying Auction Return-to-Service *o* for Reconfiguration Auction *n* was modeled in the last 6-month sub-auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*, but responsibility for Qualifying Auction Outage *o* or Qualifying Auction Return-to-Service *o* resulting in the lower rating for Reconfiguration

Auction *n* is assigned pursuant to Section 3.6.4 to a Transmission Owner (including the ISO when it is deemed a Transmission Owner pursuant to Section 3.6.4) other than the Transmission Owner responsible for the lower rating in the last auction held for TCCs valid for hour *h*;

(iv) this lower rating in Reconfiguration Auction *n* is included in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction *n*; and

(v) the constraint is binding in Reconfiguration Auction *n*.

Section 3.6.3.2. Allocation of U/D Auction Constraint Residuals

This Section 3.6.3.2 describes the allocation of U/D Auction Constraint Residuals to Qualifying Auction Deratings and Qualifying Auction Upratings.

When there are Qualifying Auction Deratings or Qualifying Auction Upratings in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction for constraint *a,* the ISO shall allocate a U/D Auction Constraint Residual in the form of a U/D Auction Revenue Shortfall Charge, U/D $ARSC_{a,t,n}$, or U/D Auction Revenue Surplus Payment, U/D $ARSP_{a,t,n}$, by first determining the net total impact on the constraint for the stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* of all Qualifying Auction Deratings *r* and Qualifying Auction Upratings *r* for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction pursuant to Formula B-24 and then applying either Formula B-25 or Formula B-26, as specified herein, to assess U/D Auction Revenue Shortfall Charges and U/D Auction Revenue Surplus Payments.

Formula B-24

$$\text{U/D NetAuctionImpact}_{a,n} = \left(\sum_{r \in R_{a,n}} \text{RatingChange}_{a,n,r} * \text{ShadowPrice}_{a,n} \right) * \text{OPFSignChange}_{a,n}$$

Where,

$\text{U/D NetAuctionImpact}_{a,n}$ = The net impact, in dollars, on constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction of all Qualifying Auction Deratings or Qualifying Auction Upratings for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction; *provided, however*, $\text{U/D NetAuctionImpact}_{a,n}$ shall be subject to recalculation as specified in the paragraph immediately following this Formula B-24

$\text{RatingChange}_{a,n,r}$= Either:

(a) If Qualifying Auction Derating *r* or Qualifying Auction Uprating *r* is a Deemed Qualifying Auction Derating or a Deemed Qualifying Auction Uprating, $\text{RatingChange}_{a,n,r}$ shall be equal to the amount, in MW-*p*, of the decrease or increase in the rating of binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction resulting from a Deemed Qualifying Auction Outage or Deemed Qualifying Auction Return-to-Service for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, which in the case of Reconfiguration Auction *n* shall be as shown in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction *n*, and which in the case of stage 1 round *n* of a 6-month sub-auction shall be as shown in the Centralized TCC Auction Interface Uprate/Derate Table in effect for stage 1 round *n* of a 6-month sub-auction; or

(b) If Qualifying Auction Derating *r* or Qualifying Auction Uprating *r* is an Actual Qualifying Auction Derating or an Actual Qualifying Auction Uprating, $\text{RatingChange}_{a,n,r}$ shall be equal to the amount, in MW-*p*, of the decrease or increase in the rating of binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction resulting from an Actual Qualifying Auction Outage or Actual Qualifying Auction Return-to-Service for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, which in the case of Reconfiguration Auction *n* shall be as shown in the Reconfiguration Auction Interface Uprate/Derate Table in effect for Reconfiguration Auction n, and which in the case of stage 1 round n of a 6-month sub-auction shall be as shown in the Centralized TCC Auction Interface Uprate/Derate Table in effect for stage 1 round n of a 6-month sub-auction;

provided, however, $RatingChange_{a,n,r}$ shall be subject to being set equal to zero as specified in the paragraph immediately following this Formula B-24

$R_{a,n}$ = The set of all Qualifying Auction Deratings *r* or Qualifying Auction Upratings *r* for binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction

and the variables $ShadowPrice_{a,n}$ and $OPFSignChange_{a,n}$ are defined as set forth in Formula B-17.

After calculating U/D $NetAuctionImpact_{a,n}$ pursuant to Formula B-24, the ISO shall determine whether U/D $NetAuctionImpact_{a,n}$ for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n* has a different sign than U/D $ACR_{a,n}$ for constraint *a* in stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*. If the sign is different, the ISO shall (i) recalculate U/D $NetAuctionImpact_{a,n}$ pursuant to Formula B-24 after setting equal to zero each $RatingChange_{a,n,r}$ for which $RatingChange_{a,n,r} * ShadowPrice_{a,n} * OPFSignChange_{a,n}$ has a different sign than U/D $ACR_{a,n}$, and then (ii) use this recalculated U/D $NetAuctionImpact_{a,n}$ and reset value of $RatingChange_{a,n,r}$ to allocate U/D Auction Revenue Shortfall Charges and U/D Auction Revenue Surplus Payments pursuant to Formula B-25 or Formula B-26, as specified below.

If the absolute value of the net impact (U/D $NetAuctionImpact_{a,n}$) on constraint *a* for Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction of all Qualifying Auction Deratings or Qualifying Auction Upratings for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction as calculated using Formula B-24 (or recalculated pursuant to Formula B-24 using a reset value of $RatingChange_{a,n,r}$ as described in the prior paragraph) is greater than the absolute value of the U/D Auction Constraint Residual (U/D $ACR_{a,n}$) for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, as the case may be, then the ISO shall allocate the U/D Auction Constraint Residual in the form of a U/D Auction Revenue Shortfall Charge, U/D $ARSC_{a,t,n}$, or U/D Auction Revenue Surplus

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Payment, U/D $ARSP_{a,t,n}$, by using Formula B-25. If the absolute value of the net impact (U/D $NetAuctionImpact_{a,n}$) on constraint *a* for Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction of all Qualifying Auction Deratings or Qualifying Auction Upratings for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction as calculated using Formula B-24 (or recalculated pursuant to Formula B-24 using a reset value of $RatingChange_{a,n,r}$ as described in the prior paragraph) is less than or equal to the absolute value of the U/D Auction Constraint Residual (U/D $ACR_{a,n}$) for constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, as the case may be, then the ISO shall allocate the U/D Auction Constraint Residual in the form of a U/D Auction Revenue Shortfall Charge, U/D $ARSC_{a,t,n}$, or U/D Auction Revenue Surplus Payment, U/D $ARSP_{a,t,n}$, by using Formula B-26.

Formula B-25

$$\text{U/D Allocation}_{a,t,n} = \left(\frac{\sum_{\substack{r \in R_{a,n} \\ \text{and } q=t}} \left(\text{RatingChange}_{a,n,r} * \text{Responsibility}_{n,q,r} \right)}{\sum_{\text{for all } r \in R_{a,n}} \text{RatingChange}_{a,n,r}} \right) * \text{U/D ACR}_{a,n}$$

Where,

$\text{U/D Allocation}_{a,t,n}$ = Either a U/D Auction Revenue Shortfall Charge or a U/D Auction Revenue Surplus Payment, as specified in (a) and (b) below:

(a) If $\text{U/D Allocation}_{a,t,n}$ is negative, then $\text{U/D Allocation}_{a,t,n}$ shall be a U/D Auction Revenue Shortfall Charge, U/D $ARSC_{a,t,n}$, charged to Transmission Owner *t* for binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction; or

(b) If $\text{U/D Allocation}_{a,t,n}$ is positive, then $\text{U/D Allocation}_{a,t,n}$ shall be a U/D Auction Revenue Surplus Payment, U/D $ARSP_{a,t,n}$, paid to Transmission Owner *t* for binding constraint *a* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction

$Responsibility_{n,q,r}$ = The amount, as a percentage, of responsibility borne by Transmission Owner *q* (which shall include the ISO when it is deemed a Transmission Owner for the purpose of applying Sections 3.6.4.2 or 3.6.4.3) for Qualifying Auction Derating *r* or Qualifying Auction Uprating *r* in Reconfiguration Auction *n* or stage 1 round *n* of a 6-month sub-auction, as determined pursuant to Section 3.6.4

and the variable U/D $ACR_{a,n}$ is defined as set forth in Formula B-20 and the variables $RatingChange_{a,n,r}$ and $R_{a,n}$ are defined as set forth in Formula B-24.

Formula B-26

$$\text{U/D Allocation}_{a,t,n} = \sum_{\substack{r \in R_{a,n} \\ \text{and } q=t}} \text{RatingChange}_{a,n,r} * \text{ShadowPrice}_{a,n} * \text{Responsibility}_{n,q,r}$$

Where,

the variables U/D $Allocation_{a,t,n}$ and $Responsibility_{n,q,r}$ are defined as set forth in Formula B-25, the variable $ShadowPrice_{a,n}$ is defined as set forth in Formula B-17, and the variables $RatingChange_{a,n,r}$ and $R_{a,n}$ are defined as set forth in Formula B-24.

Section 3.6.4. Assigning Responsibility for Outages, Returns-to-Service, Deratings, and Upratings

Section 3.6.4.1. General Rule for Assigning Responsibility; Presumption of Causation

Unless the special rules set forth in Sections 3.6.4.2 or 3.6.4.3 apply, a Transmission Owner shall for purposes of this Section 3.6 be deemed responsible for an Auction Status Change to the extent that the Transmission Owner has caused the Auction Status Change by changing the in-service or out-of-service status of its transmission facility; *provided, however*, that where an Auction Status Change results from a change to the in-service or out-of-service status of a transmission facility owned by more than one Transmission Owner, responsibility for such

Auction Status Change shall be assigned to each owning Transmission Owner based on the percentage of the transmission facility that is owned by the Transmission Owner (as determined in accordance with Section 3.6.6.3) during the hour for which the DAM Status Change occurred. For the sake of clarity, a Transmission Owner may, by changing the in-service or out-of-service status of its transmission facility, cause an Auction Status Change of another transmission facility if the Transmission Owner's change in the in-service or out-of-service status of its transmission facility causes (directly or as a result of Good Utility Practice) a change in the in-service or out-of-service status of the other transmission facility.

The Transmission Owner that owns a transmission facility that qualifies as an Auction Status Change shall be deemed to have caused the Auction Status Change of that transmission facility unless (i) the Transmission Owner that owns the facility informs the ISO that another Transmission Owner caused the Auction Status Change or that responsibility is to be shared among Transmission Owners in accordance with Sections 3.6.4.2 or 3.6.4.3, and no party disputes such claim; (ii) in case of a dispute over the assignment of responsibility, the ISO determines a Transmission Owner other than the owner of the transmission facility caused the Auction Status Change or that responsibility is to be shared among Transmission Owners in accordance with Section 3.6.4.2 or Section 3.6.4.3; or (iii) FERC orders otherwise.

Section 3.6.4.2. Shared Responsibility For Outages, Returns-to-Service, and Ratings Changes Directed by the ISO or Caused by Facility Status Changes Directed by the ISO

A Transmission Owner shall not be responsible for any Auction Status Change that qualifies as an ISO-Directed Auction Status Change or Deemed ISO-Directed Auction Status Change. Instead, the ISO shall allocate any revenue impacts resulting from an Auction Status

Change that qualifies as an ISO-Directed Auction Status Change or Deemed ISO-Directed Auction Status Change as part of Net Auction Revenues for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*. To do so, the ISO shall be treated as a Transmission Owner when allocating Auction Constraint Residuals pursuant to Section 3.6.2 and Section 3.6.3, and any Auction Status Change that qualifies as an ISO-Directed Auction Status Change or Deemed ISO-Directed Auction Status Change shall be attributed to the ISO when performing the calculations described in Section 3.6.2 and Section 3.6.3; *provided, however*, any O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment allocable to the ISO pursuant to this Section 3.6.4.2 shall ultimately be allocated to the Transmission Owners as Net Auction Revenues pursuant to Section 3.7.

Responsibility for a Qualifying Auction Return-to-Service or Qualifying Auction Uprating that is directed by the ISO but does not qualify as a Deemed ISO-Directed Auction Status Change shall be assigned to the Transmission Owner that was responsible for the Qualifying Auction Outage or Qualifying Auction Derating in the last 6-month sub-auction held for TCCs valid during the month corresponding to the relevant Reconfiguration Auction.

The ISO shall not direct that a transmission facility be modeled as in-service or out-of-service for purposes of a Reconfiguration Auction without the unanimous consent of the Transmission Owner(s), if any, that will be allocated a resulting O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment in accordance with this Section 3.6.4.2.

Section 3.6.4.3. Shared Responsibility for External Events

A Transmission Owner shall not be responsible for an Auction Status Change occurring inside the NYCA that is caused by a change in the in-service or out-of-service status or rating of a transmission facility located outside the NYCA. Instead, the ISO shall allocate any revenue impacts resulting from an Auction Status Change caused by such an event outside the NYCA as part of Net Auction Revenues for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*. To do so, the ISO shall be treated as a Transmission Owner when allocating Auction Constraint Residuals pursuant to Section 3.6.2 and Section 3.6.3 and any Auction Status Change caused by such an event outside the NYCA shall be attributed to the ISO; *provided, however*, any O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment allocable to the ISO pursuant to this Section 3.6.4.3 shall ultimately be allocated to the Transmission Owners as Net Auction Revenues pursuant to Section 3.7.

Section 3.6.5. Exceptions: Setting Charges and Payments to Zero

Section 3.6.5.1. Zeroing Out of Charges and Payments When Outages and Deratings Lead to Net Payments or Returns-to-Service and Upratings Lead to Net Charges

The ISO shall use Formula B-27 to calculate the total O/R-t-S Auction Revenue Shortfall Charges, U/D Auction Revenue Shortfall Charges, O/R-t-S Auction Revenue Surplus Payments, and U/D Auction Revenue Surplus Payments, $\text{NetAuctionAllocations}_{t,n}$, for Transmission Owner *t* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, as the case may be. Based on this calculation, the ISO shall set equal to zero all O/R-t-S $\text{ARSC}_{a,t,n}$, U/D $\text{ARSC}_{a,t,n}$, O/R-t-S $\text{ARSP}_{a,t,n}$, and U/D $\text{ARSP}_{a,t,n}$ (each as defined in Formula B-27) for

Transmission Owner *t* for all constraints for stage 1 round *n* of a 6-month sub-auction or Reconfiguration Auction *n*, as the case may be, if (i) $\text{NetAuctionAllocations}_{t,n}$ is positive and Transmission Owner *t* is not responsible (as determined pursuant to Section 3.6.4) for any Qualifying Auction Returns-to-Service or Qualifying Auction Upratings in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, as the case may be, or (ii) $\text{NetAuctionAllocations}_{t,n}$ is negative and Transmission Owner *t* is not responsible (as determined pursuant to Section 3.6.4) for any Qualifying Auction Outages or Qualifying Auction Deratings in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, as the case may be; *provided, however*, the ISO shall not set equal to zero pursuant to this Section 3.6.5.1 any O/R-t-S $\text{ARSC}_{a,t,n}$, U/D $\text{ARSC}_{a,t,n}$, O/R-t-S $\text{ARSP}_{a,t,n}$, or U/D $\text{ARSP}_{a,t,n}$ arising from an ISO-Directed Auction Status Change or Deemed ISO-Directed Auction Status Change described in Section 3.6.4.2 or external events described in Section 3.6.4.3.

Formula B-27

$$\text{NetAuctionAllocations}_{t,n} = \sum_{\text{for all a}} \left(\text{O/R-t-S ARSC}_{a,t,n} + \text{U/D ARSC}_{a,t,n} + \text{O/R-t-S ARSP}_{a,t,n} + \text{U/D ARSP}_{a,t,n} \right)$$

Where,

$\text{NetAuctionAllocations}_{t,n}$ = The total of the O/R-t-S Auction Revenue Shortfall Charges, U/D Auction Revenue Shortfall Charges, O/R-t-S Auction Revenue Surplus Payments, and U/D Auction Revenue Surplus Payments allocated to Transmission Owner *t* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*

O/R-t-S $\text{ARSC}_{a,t,n}$ = An O/R-t-S Auction Revenue Shortfall Charge allocated to Transmission Owner *t* for binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n,* calculated pursuant to Section 3.6.2

U/D $\text{ARSC}_{a,t,n}$ = A U/D Auction Revenue Shortfall Charge allocated to Transmission Owner *t* for binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n,* calculated pursuant to Section 3.6.3

O/R-t-S $ARSP_{a,t,n}$ = An O/R-t-S Auction Revenue Surplus Payment allocated to Transmission Owner *t* for binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, calculated pursuant to Section 3.6.2

U/D $ARSP_{a,t,n}$ = A U/D Auction Revenue Surplus Payment allocated to Transmission Owner *t* for binding constraint *a* in stage 1 round *n* of a 6-month sub-auction or in Reconfiguration Auction *n*, calculated pursuant to Section 3.6.3.

Section 3.6.5.2. Zeroing Out of Charges and Payments Resulting from Formula Failure

Notwithstanding any other provision of this Part V of this Attachment B, the ISO shall set equal to zero any O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment allocated to a Transmission Owner for a Reconfiguration Auction or a round of a Centralized TCC Auction if either:

(i) data necessary to compute such a charge or payment, as specified in the formulas set forth in Section 3.6, is not known by the ISO and cannot be computed by the ISO (in interpreting this clause, equipment failure shall not preclude computation by the ISO unless necessary data is irretrievably lost); or

(ii) both (a) the charge or payment is clearly and materially inconsistent with cost causation principles; and (b) this inconsistency is the result of factors not taken into account in the formulas used to calculate the charge or payment;

provided, however, if the amount of charges or payments set equal to zero as a result of the unknown data or inaccurate formula is greater than twenty five thousand dollars ($25,000) in any given month or greater than one hundred thousand dollars ($100,000) over multiple months, the ISO will inform the Transmission Owners of the identified problem and will work with the

Transmission Owners to determine if an alternative allocation method is needed and whether it will apply to all months for which the intended formula does not work. Alternate methods would be subject to market participant review and subsequent filing with FERC, as appropriate.

For the sake of clarity, the ISO shall not pursuant to this Section 3.6.5.2 set equal to zero any O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment that fails to meet these conditions, even if another O/R-t-S Auction Revenue Shortfall Charge, U/D Auction Revenue Shortfall Charge, O/R-t-S Auction Revenue Surplus Payment, or U/D Auction Revenue Surplus Payment is set equal to zero pursuant to this Section 3.6.5.2 in the same round of a Centralized TCC Auction or the same Reconfiguration Auction, as the case may be.

Section 3.6.6. Information Requirements

Section 3.6.6.1.Posting of Uprate/Derate Tables

Prior to each Reconfiguration Auction, the ISO shall post on its website the Reconfiguration Auction Interface Uprate/Derate Table, which table shall specify the expected impact (at the time of the Reconfiguration Auction based on all information available to the ISO) of all transmission facility outages and returns-to-service on interface transfer limits for the period for which TCCs are to be sold in the Reconfiguration Auction.

Prior to each Centralized TCC Auction, the ISO shall post on its website the Centralized TCC Auction Interface Uprate/Derate Table, which table shall specify the expected impact (at the time of the Centralized TCC Auction based on all information available to the ISO) of all transmission facility outages and returns-to-service on interface transfer limits for the period for which TCCs are to be sold in each sub-auction of the Centralized TCC Auction.

Section 3.6.6.2. Posting of List of Normally Out-of-Service Equipment

The ISO shall maintain on its website a list of Normally Out-of-Service Equipment and update such list prior to each Reconfiguration Auction and each Centralized TCC Auction.

Section 3.6.6.3. Information Regarding Facility Ownership

A Transmission Owner shall be responsible for informing the ISO of any change in the ownership of a transmission facility. The ISO shall allocate responsibility for Auction Status Changes based on the transmission facility ownership information available to it at the time of initial settlement.

Section 3.7. Allocation of Net Auction Revenue to Transmission Owners

In Centralized TCC Auction round *n* or in Reconfiguration Auction *n*, as the case may be, the ISO shall use the Facility Flow-Based Methodology to allocate Net Auction Revenue to each Transmission Owner *t* in an amount equal to the product of (i) the Facility Flow-Based Methodology coefficient, $FFB_{t,n}$, and (ii) the Net Auction Revenue for the round or for the Reconfiguration Auction; *provided, however*, where the Net Auction Revenue is negative for a Reconfiguration Auction, the ISO shall allocate Net Auction Revenue to each Transmission Owner *t* in an amount equal to the product of (i) the negative Net Auction Revenue coefficient, $NNAR_{t,n}$, and (ii) the negative Net Auction Revenue for the Reconfiguration Auction.

Calculation of Facility Flow-Based Methodology Coefficient. The Facility Flow-Based Methodology coefficient for Transmission Owner *t* for Centralized TCC Auction round *n* or Reconfiguration Auction *n* is calculated pursuant to Formula B-28.

Formula B-28

$$FFB_{t,n} = \left| \frac{\sum_{l \in L_{t,n}} \left(FLOW_{l,n} - FLOW_{l,IC} \right) * \left(Price_{y,l} - Price_{x,l} \right)}{\sum_{l \in L_{n}} \left(FLOW_{l,n} - FLOW_{l,IC} \right) * \left(Price_{y,l} - Price_{x,l} \right)} \right| * \left(Share_{n,t,l} \right)$$

Where,

$FFB_{t,n}$ = The Facility Flow-Based Methodology coefficient for Transmission Owner *t* for Centralized TCC Auction round *n* or Reconfiguration Auction *n*, as the case may be

L_n = The set of all transmission facilities modeled in the Transmission System model for round *n* or for Reconfiguration Auction *n*, as the case may be

$L_{t,n}$ = The set of all transmission facilities owned by Transmission Owner *t* that are modeled in the Transmission System model applied in round *n* or in Reconfiguration Auction *n*, as the case may be

l = A transmission facility from bus *x* to bus *y*

$FLOW_{l,n}$ = The Energy flow, in MW-*p*, on transmission facility *l* from the set of TCCs and Grandfathered Rights represented in the solution to round *n* or to Reconfiguration Auction *n*, as the case may be (including those pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in that auction)

$FLOW_{l,IC}$ = The Energy flow, in MW-*p*, on transmission facility *l* from (i) the set of pre-existing TCCs and Grandfathered Rights represented as fixed injections and withdrawals in administering the TCC auction held for round *n* or Reconfiguration Auction *n*, as the case may be, (ii) ETCNL not sold

in prior Centralized TCC Auctions or through a Direct Sale, and (iii) Original Residual TCCs not sold in prior Centralized TCC Auctions or through a Direct Sale

$Price_{y,l}$ = The market clearing price at bus *y* on transmission facility *l* in the Optimal Power Flow solution to round *n* or Reconfiguration Auction *n*, as the case may be

$Price_{x,l}$ = The market clearing price at bus *x* on transmission facility *l* in the Optimal Power Flow solution to round *n* or Reconfiguration Auction *n*, as the case may be

$Share_{n,t,l}$ = The percentage of transmission facility *l* owned by Transmission Owner *t* on the effective date of the TCCs sold in round *n* or in Reconfiguration Auction *n*

p = A one-month period for Reconfiguration Auction *n*, or the effective period of TCCs sold in round *n* for round *n*.

Calculation of Negative Net Auction Revenue Coefficient. The negative Net Auction Revenue coefficient for Transmission Owner t for Reconfiguration Auction n is calculated pursuant to Formula B-29.

Formula B-29

$$NNAR_{t,n} = \frac{\left(\text{Original Residual}_{t,n} + \text{ETCNL}_{t,n} + \text{NARs}_{t,n} + \text{GFR\&GFTCC}_{t,n}\right)}{\sum_{q \in T}\left(\text{Original Residual}_{q,n} + \text{ETCNL}_{q,n} + \text{NARs}_{q,n} + \text{GFR\&GFTCC}_{q,n}\right)}$$

Where,

$NNAR_{t,n}$ = The negative Net Auction Revenue coefficient for Transmission Owner *t* for Reconfiguration Auction *n*

Original $Residual_{q,n}$ = The one-month portion of the revenue imputed to the Direct Sale or the sale in any Centralized TCC Auction sub-auction of Original Residual TCCs that are valid during the month corresponding to Reconfiguration Auction *n*. The one-month portion of the revenue imputed to the Direct Sale of these Original Residual TCCs shall be one-sixth of the average market clearing price in the stage 1 rounds of the 6-month sub-auction of the last Centralized TCC Auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*. The one-month portion of the revenue imputed to the sale in any Centralized TCC Auction sub-auction of these Original Residual TCCs shall be calculated by dividing the revenue received from the sale of these Original Residual TCCs in the Centralized TCC Auction sub-auction by the duration in months of the TCCs sold in that Centralized TCC Auction sub-auction

$ETCNL_{q,n}$ = The sum of the one-month portion of the revenues the Transmission Owner has received as payment for the Direct Sale of ETCNL or for its ETCNL released in the Centralized TCC Auction sub-auctions held for TCCs valid for the month corresponding to Reconfiguration Auction *n*. Each one-month portion of the revenue for ETCNL released in such Centralized TCC Auction shall be calculated by dividing the revenue received in a Centralized TCC Auction sub-auction from the sale of the ETCNL by the duration in months of the TCCs corresponding to the ETCNL sold in the Centralized TCC Auction sub-auction.[1] The one-month portion of the revenue imputed to the Direct Sale of ETCNL shall be one-sixth of the average market clearing price of the TCCs corresponding to that ETCNL in the stage 1 rounds of the 6-month sub-auction of the last Centralized TCC Auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*

$NARs_{q,n}$ = The one-month portion of the Net Auction Revenues the Transmission Owner has received in Centralized TCC Auction sub-auctions and Reconfiguration Auctions held for TCCs valid for the month corresponding to Reconfiguration Auction *n* (which shall not include any revenue from the sale of Original Residual TCCs). The one-month portion of the revenues shall be calculated by summing (i) the revenue Transmission Owner *q* received in each Centralized TCC Auction sub-auction from the allocation of Net Auction Revenue pursuant to Section 3.7, divided by the duration in months of the TCCs sold in the Centralized TCC Auction sub-auction (or, to the extent TCC auction revenues were allocated pursuant to a different methodology, the amount of such revenues allocated to Transmission Owner *q*), minus (ii) the sum of $NetAuctionAllocations_{t,n}$ as calculated pursuant to Formula B-27 (as adjusted for any charges or payments that are zeroed out) for Transmission Owner *q* for all stage 1 rounds *n* of a 6-month sub-auction for all Centralized TCC Auctions held for TCCs valid in the month corresponding to Reconfiguration Auction *n*, divided in each case by the duration in months of the TCCs sold in each Centralized TCC Auction sub-auction (or, to the extent that the revenue impact of transmission facility outages, returns-to-service, upratings, and deratings were settled pursuant to a different methodology, the net of such revenue impacts for Transmission Owner *q*), minus (iii) $NetAuctionAllocations_{t,n}$ as calculated pursuant to Formula B-27 and as adjusted for any charges or payments that are zeroed out for Transmission Owner *q* for Reconfiguration Auction *n*

[1] A TCC corresponds to ETCNL if it has the same POI and POW as the ETCNL.

GFR& $GFTCC_{q,n}$	=	The one-month portion of the imputed value of Grandfathered TCCs and Grandfathered Rights, valued at one-sixth of the market clearing price in the last Centralized TCC Auction held for TCCs valid during the month corresponding to Reconfiguration Auction *n*, provided that the Transmission Owner is the selling party and the Existing Transmission Agreement related to each Grandfathered TCC and Grandfathered Right remains valid in the month corresponding to Reconfiguration Auction *n*
t	=	Transmission Owner *t*
T	=	The set of all Transmission Owners *q*.

Each Transmission Owner's share of Net Auction Revenues allocated pursuant to this Section 3.7 shall be incorporated into its TSC or NTAC, as the case may be.