

July 21, 2010

**By Electronic Filing**

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

**Re: *New York Independent System Operator, Inc., Docket No.ER10-\_\_\_-\_\_\_  
Proposed Tariff Clarifications Addressing Guarantee and Margin  
Assurance Payments, and Rules for Implementation of Improved Reference  
Levels for Generators that Are Not Able to Complete their Minimum Run  
Time Within the Dispatch Day***

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act,<sup>1</sup> the New York Independent System Operator, Inc. (“NYISO”) hereby submits proposed amendments to its Open Access Transmission Tariff (“OATT”) and Market Administration and Control Area Services Tariff (“Services Tariff”) to revise provisions concerning Bid Production Cost Guarantees (“BPCG”), Day Ahead Margin Assurance Payments (“DAMAP”) and to make conforming changes. These payments, *inter alia*, guarantee that Suppliers recover, respectively, the costs of their production over the course of a day, as evidenced in their Bids, and the margin they earned in the Day-Ahead Market when the NYISO reduces their Energy output in real-time to maintain system security.

The NYISO recently conducted an internal review of the BPCG and DAMAP provisions of its Tariffs and identified opportunities to improve and clarify certain provisions.<sup>2</sup> The NYISO proposes to revise the provisions listed in Section II.

Building upon the improvements to the BPCG rules that are proposed in this filing, the NYISO also proposes new Tariff rules to permit it to more accurately implement a requirement of its Market Power Mitigation Measures (“Mitigation Measures”) that Generator start-up reference levels incorporate costs related to satisfying minimum run time requirements.<sup>3</sup> In the

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<sup>1</sup> 16 U.S.C. §824d (2000).

<sup>2</sup> The NYISO conducted this internal review and is making this filing as part of an on-going comprehensive review of its tariffs to identify opportunities to improve and clarify them.

<sup>3</sup> See Sections 23.3.1.4.4.1 and 23.3.1.4.4.2 of the Mitigation Measures, which are set forth in Attachment H to the Services Tariff.

NYISO's discussions with its stakeholders, this set of proposed Tariff revisions was referred to as the "Late Day Start" Tariff revisions, although the proposed rules could apply to a Generator that is started early in the Dispatch Day, depending on the Generator's minimum run time.

All of the proposed Tariff amendments have been approved by the NYISO's Management Committee and its Board of Directors.

**I. Documents Submitted**

1. This filing letter;
2. A clean version of the proposed revisions to the NYISO's Open Access Transmission Tariff ("OATT") and Market Administration and Control Area Services Tariff ("Services Tariff") ("Attachment I"); and
3. A blacklined version of the proposed revisions to the NYISO's Open Access Transmission Tariff ("OATT") and Market Administration and Control Area Services Tariff ("Services Tariff") ("Attachment II").

**II. Description of Proposed Tariff Revisions to the Services Tariff**

**A. Overview**

**1. Strategic Tariff Review—BPCG and DAMAP**

The NYISO is proposing revisions to the Services Tariff which, as a general matter, relocate, from various sections of the Services Tariff to Attachments C and J, eligibility rules and calculations for BPCG and DAMAP payments, respectively. Where necessary, existing term definitions are clarified or new terms defined, generic calculations are eliminated in favor of calculations separately described for separate situations to provide additional clarity. Existing Tariff Sections 4.6.5 and 4.6.6 are clarified to describe the availability of DAMAP and BPCG payments, respectively, without duplicating language in the Attachments. The NYISO's proposed revisions also add consistent capitalization, and broaden existing terminology to provide clarity.

Other than two substantive rules revisions, described in greater detail below, none of the Tariff amendments propose substantive changes to the eligibility for, or calculation of, BPCG or DAMAP.

## **2. Proposed Tariff Revisions to Implement Late Day Start**

### **a. Summary of Key Late Day Start Rules**

Many classes of generating units are designed and manufactured to run for a period of several consecutive hours at a stretch. Starting and rapidly shutting down these classes of generators, in violation of these minimum run requirements, can cause significant additional wear and tear, and reduce their useful life. In the New York markets, the physical/operational need for a Generator to be committed for some minimum number of hours is reflected in the minimum run time Bid parameter. A Generator that needs to run into the next Dispatch Day in order to complete its minimum run time may have to offer its minimum output at a price below its actual cost in order to ensure that the Generator continues to be scheduled for the full minimum run period. The period of operation on the day following the Dispatch Day on which the Generator was started will necessarily include off-peak hours (between midnight and 6:00 a.m.).

The NYISO's Mitigation Measures already include provisions designed to permit Generators that must run over midnight and into the next Dispatch Day in order to complete their minimum run time the opportunity to include in their Start-Up Bids the net costs (net of LBMP revenues) they reasonably expect to incur on the next Dispatch Day. In cases where it is reasonable to expect that a Generator's total cost for completing its minimum run time will exceed the Generator's LBMP for the relevant hours it is appropriate to permit Generators to include those costs in their Bids. Section 23.3.1.4.4 of the Mitigation Measures addresses the NYISO's development of start-up reference levels.<sup>4</sup> Section 23.3.1.4.4.1, which addresses the development of Bid-based start-up reference levels, requires the NYISO to calculate a reference level "for similar start times," which could be read as referring to the hour of the Dispatch Day in which a Generator starts. Section 23.3.1.4.4.2, which addresses the development of "negotiated" or "cost-based" start-up reference levels, more clearly requires the NYISO to take into account "costs incurred to meet minimum run time requirements" when developing a start-up reference level.

To date, the NYISO has implemented its obligation to permit Generators to incorporate costs that they were not able to recover when operating on the day after the Dispatch Day in order to meet minimum run time requirements into their Dispatch Day Bids by reviewing Generators' consultation requests and manually reversing incorrectly applied mitigation after-the-fact. Mitigation of legitimate costs that are incorporated into Generator Bids can skew the dispatch and reduce market efficiency. The Tariff revisions proposed in this filing implement a set of rules that will: (1) enable the NYISO's new, more sophisticated, "RLS" reference level development software to calculate start-up reference levels that vary by hour, and that incorporate estimated hourly LBMP revenues for the day following the Dispatch Day; (2) enable

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<sup>4</sup> Reference levels are proxies for the Bid that a bidding entity would be expected to submit for a Generator under competitive circumstances.

Generators to reflect the net costs that they reasonably expect to incur (if any) when operating on the day following the Dispatch Day in which the Generator is started in their Start-Up Bids; and (3) test Start-Up Bids that include the expected cost of operating on the day following the Dispatch Day for possible mitigation against start-up reference levels that incorporate the Generator's expected cost of operating on the day following the Dispatch Day to meet its minimum run time. The proposed improvements will apply to Generators that are committed in the Day-Ahead Market ("DAM") or via a Supplemental Resource Evaluation ("SRE").

For Generators that need to run on the day following the Dispatch Day in order to satisfy their minimum run time, the NYISO's new and improved Reference Level Software ("RLS") will calculate a start-up reference level that incorporates the following cost and revenue components:

- the Generator's fuel-indexed start-up cost for the hour in which the Generator is scheduled to start-up;
- the number of hours that the Generator must run on the day following the dispatch day in order to satisfy its minimum run time;
- the Generator's fuel-indexed, hourly minimum generation MW and \$ reference levels; and
- an estimate of the expected LBMP revenues for each hour that the Generator must run on the day following the dispatch day in order to satisfy its minimum run time.
  - Estimated LBMPs are calculated hour-by-hour, ordinarily using a seven-day rolling average of LBMPs for that hour, at the Generator's location.

The difference between the minimum generation costs and the expected LBMP revenues for the hours of the day following the Dispatch Day that the Generator must run in order to complete its minimum run time is called the "shortfall ratio." It is calculated on an hourly basis, and then summed over the entire period that the Generator is expected to run on the day following the Dispatch Day.<sup>5</sup> Positive revenues in hours where LBMPs are expected to exceed minimum generation costs offset negative revenues in hours where minimum generation costs are expected to exceed LBMP revenues, and *vice-versa*. While expected positive LBMP revenues may "zero out" the expected cost to a Generator of operating on the day after the day in which it is started-up, expected LBMP revenues are not permitted to reduce a Generator's unmodified start-up reference level.

In order to implement the proposed improvements, and to achieve consistency between and among market rules, several ancillary changes to the NYISO's mitigation, market and settlement rules are necessary. Necessary changes include:

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<sup>5</sup> The calculation of the shortfall ratio is addressed in Section 23.3.3.4.4.3.2 of the proposed Mitigation Measures.

- Limiting a committed Generator's eligibility to receive a start-up payment following a scheduled start-up for the full period of the Generator's minimum run time, plus the hour that follows the conclusion of such minimum run time.
- Limiting the minimum run time Bid parameter to a maximum of 24 hours. Permitting minimum run times to extend more than one day beyond the Dispatch Day would significantly complicate and increase the cost of developing the software necessary to automate the Tariff rules described in this filing letter.
- Excluding both the costs and revenues associated with operating the Generator at its minimum operating level from the calculation of BPCG payments on the day following the Dispatch Day, for the hours that the Generator needs to run in order to meet its minimum run time (because these costs were already reflected in the Start-Up Bid and recovered on the Dispatch Day).
- Excluding from the ISO's development of Bid-based reference levels Minimum Generation Bids (or Incremental Energy Bids for combustion turbines) that are submitted for the hours of the day following the Dispatch Day that the Generator must operate in order to satisfy its minimum run time. This exclusion is appropriate because the Generator is expected to Bid to ensure its commitment for those hours, not to reflect its marginal operating cost.
- Excluding from the ISO's development of LBMP-based reference levels the hours of the day following the Dispatch Day that the Generator must operate in order to satisfy its minimum run time. This exclusion is appropriate because the Generator is expected to Bid to ensure its commitment for the full minimum run time, and the hours that the Generator must operate on the day following the Dispatch Day in order to meet its minimum run time will, necessarily, include a substantial number of off-peak hours (HB0-HB6) during which LBMPs are likely to be lower than the Generator's marginal costs.
- Prorating the start-up component of the Generator's Dispatch Day BPCG calculation based on the Generator's actual performance for the minimum run time submitted with its Start-Up Bid. If the Generator's minimum run time Bid parameter was 12 hours, but the Generator only operated for 11 hours, it would be paid 11/12 of its Start-Up Bid (or of its mitigated Start-Up Bid, as appropriate).

**b. Simplified Examples of How the Proposed Mitigation Rules Will Work**

For purposes of this simplified example, "Generator A" is a gas-fired steam boiler that has a minimum operating level of 50 MW, and 100 MW of dispatchable capability, resulting in

a maximum output of 150 MW. Generator A requires \$10,000 to achieve its minimum operating level from a cold start (in other words, \$10,000 is Generator A's start-up reference level for cold starts). Generator A's minimum generation reference level is \$5000/hr (\$100/MW \* 50 MW) and its incremental energy reference level is \$50/MWh for all MWs above its minimum operating level. Finally, Generator A's minimum run time is 12 hours.

Example 1: Generator A is scheduled (in the DAM, or via SRE) to start in HB6 and to run through HB23. In this example, the Generator is scheduled to run for more than its 12 hour minimum run time in the Dispatch Day in which it was committed. Generator A's HB6 Start-Up Bid will be limited to \$10,000, plus the appropriate mitigation thresholds.<sup>6</sup> A Start-Up Bid in excess of Generator A's start-up reference level plus the appropriate mitigation thresholds would be mitigated to \$10,000.

Example 2: Generator A is scheduled (in the DAM, or via SRE) to start in HB15 and to run through HB23. In order to satisfy its minimum run time, Generator A will need to submit Minimum Generation Bids that are designed to ensure Generator A's continued economic commitment for HB0, HB1 and HB2 on the day following the Dispatch Day in which Generator A was committed. Generator A's start-up reference level for HB15 will be \$10,000 (the cost of a "cold" start), plus \$15,000 (3 hours worth of minimum generation costs at Generator A's \$5000 minimum generation reference level), minus Generator A's expected LBMP revenues at its minimum operating level (50 MW) for HB0, HB1 and HB2 on the day following the Dispatch Day. Assuming LBMPs were expected to be \$30/MWh for HB0, HB1 and HB2 (based on the seven-day rolling average), Generator A's start-up reference level for HB15 would be  $\$10,000 + \$15,000 - \text{expected LBMP revenues of } \$4,500 (50 \text{ MW} * \$30/\text{MWh} * 3 \text{ hours}) = \$20,500$ .

In this second example, Generator A's HB15 Start-Up Bid would be limited to \$20,500, plus the appropriate mitigation thresholds. A Start-Up Bid in excess of Generator A's start-up reference level plus the appropriate mitigation thresholds would be mitigated to \$20,500.

## **B. Proposed Revisions to Services Tariff Definitions**

The NYISO proposes several clarifying changes to terms used in the Services Tariff with regard to BPCG and DAMAP provisions. The NYISO proposes to amend the definition of the term "Day-Ahead Margin," in Section 2.4, by adding the phrase "Day-Ahead" to the phrase "offer price" to clarify that the margin is that portion of a Supplier's Day-Ahead settlement that represents the difference between the Supplier's Day-Ahead offer price and the Day-Ahead LBMP. It proposes to add the phrase "hourly balancing payment obligation" to the definition of

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<sup>6</sup> The appropriate mitigation thresholds to use will vary based on many factors, including the Generator's location (in the New York City Constrained Area, or in "rest-of-state"), whether the New York City transmission system is constrained, and whether the Generator was committed outside the NYISO's economic evaluation process to address reliability concerns.

the DAMAP in Section 2.4, to clarify it is the hourly balancing obligation that may offset a Day-Ahead Margin and prompt the need for a DAMAP. The amendment proposed for the term “Dispatch Day,” in Section 2.4 of the Services Tariff and Section 1.4 of the OATT, ensures that the reader understands that the Dispatch Day may be 23, 24 or 25 hours in length, depending on whether New York State is moving into or out of Day-light Savings time.

In Section 2.5 of the Services Tariff the NYISO proposes to revise the definition of the term “Economic Operating Point” (“EOP”), a concept used in calculating a Supplier’s BPCG and DAMAP payments pursuant to the provisions of Attachment C and J of the Services Tariff, respectively, to describe the calculation of the EOP under various specific circumstances. This term is also being added to Section 1.5 of the OATT for consistency purposes. These amendments provide a more precise description of the EOP and clarify how it is calculated. The NYISO also proposes to add new terms to Sections 2.9 and 2.19 of the Services Tariff and Sections 1.9 and 1.19 of the OATT, “Import Curtailment Guarantee Payment,” “Subzone,” and “Supplemental Event Interval.” The NYISO proposes to define Import Curtailment Guarantee Payment as:

A payment made in accordance with Section 4.5.3.2 and Attachment J of this ISO Services Tariff to compensate a Supplier whose Import is Curtailed by the ISO.

Adding this new term to the Services Tariff supports the relocation of this special settlement rule from Article 4 to Attachment J as is further discussed in greater detail below. The NYISO proposes to define “Subzone” as:

That portion of a Load Zone in a Transmission Owner’s Transmission District.

This new term supports the clarifications to the allocation of BPCG and DAMAP that are proposed in this filing. The NYISO proposes to define “Supplemental Event Interval” in Section 2.19 of the Services Tariff and Section 1.19 of the OATT as:

Any RTD interval in which there is a maximum generation pickup or a large event reserve pickup or which is one of the three RTD intervals following the termination of the maximum generation pickup or the large event reserve pickup.

This new term supports the NYISO’s expanded explanation of special BPCG calculations when the NYISO has ordered a maximum generation or a large event reserve pickup. The new term, “Supplemental Event Interval” clarifies precisely the intervals for which the special BPCG rules apply. The NYISO also proposes to amend in Section 2.16 of the Services Tariff and Section 1.16 of the OATT the definition of “Performance Tracking System” to clarify its function.

To implement the proposed Late Day Start Tariff rules, the NYISO proposes to expand the definition of a Start-Up Bid in Sections 2.19 of the Services Tariff and 1.19 of the OATT to: (1) set the longest minimum run time that a Generator may incorporate into its Start-Up Bids at 24 hours; and (2) explain that a Generator must include in its Start-Up Bid expected costs (net of expected LBMP revenues) of operating on the day following the Dispatch Day in order to complete its minimum run time.

### **C. Revisions to Article 4 of the Services Tariff**

The NYISO is proposing several amendments to Article 4 of the Services Tariff. The first set better explains the process of determining whether a Generator with a long start-up time<sup>7</sup> should be scheduled to start, through a Supplemental Resource Evaluation, for Dispatch Days two through seven. The NYISO is proposing an amendment to Section 4.2.5 to clarify that a long start-up time Generator is one that “cannot be scheduled by SCUC to start up in time for the next Dispatch Day.” The NYISO proposes to also amend this Section to add a cross reference to Section 4.6.6 of the Services Tariff and to Attachment C for a description of the BPCG that may be payable depending on whether the start-up sequence is aborted or the unit actually starts. Proposed new Section 4.6.6.6 of the Services Tariff, along with Sections 18.4.2 and 18.7 of Attachment C to the Services Tariff, which are described below, describe the BPCG for a long start-up time Generator.

The NYISO proposes an amendment to Section 4.4.4.1.1 to clarify that the distinction in BPCG payment eligibility between large event and small event pickups, currently included in that section, is also described in Section 4.6.6 and Attachment C. Additional amendments are proposed to Section 4.4.4.2 to clarify that although *ex ante* Real-Time LBMPs are calculated when RTD-CAM is activated, RTD-CAM does not actually perform the LBMP calculation; other operations within RTD perform the calculation. The NYISO also proposes a second cross reference to Section 4.6.6 and Attachment C, clarifying that those Sections explain the distinction in BPCG payment eligibility between large event and small event pickups.

The NYISO proposes to amend the market settlement rules found in Section 4.5.3.2 to identify, as an Import Curtailment Guarantee Payment, the special settlement that is available to a Supplier of an Import when the transaction has been curtailed in real-time by the NYISO for system security. The NYISO also proposes relocating the description of this special settlement rule calculation from Section 4.5.3.2 to Attachment J where settlement calculations for similar payments are found. Similarly, the NYISO proposes to amend Section 4.5.3.3 to delete the general description of the situation under which an Energy Limited Resource may be eligible for a DAMAP when the NYISO honors a request to reduce the Energy Limited Resource’s Day-Ahead Emergency Upper Operating Limit. This general description is redundant in light of the more precise description of the eligibility rule currently found in Attachment J, Section 25.2.1.

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<sup>7</sup> As is explained in Section 4.2.5 of the Services Tariff, a long start-up time Generator is one that cannot be scheduled to start by the NYISO’s Day-Ahead Market software in time to be on by the Dispatch Day

These amendments also clarify that DAMAP eligibility does not depend on the existence of a net margin shortage across the whole day and that the NYISO will not derate the Energy Limited Resource's Emergency Upper Operating Limit below its Normal Operating Limit.

The NYISO proposes an amendment to Section 4.6.5 to delete the description of the eligibility rule for Day-Ahead Margin Assurance Payments for Suppliers in the Energy or Ancillary Services markets in favor of a reference to the eligibility rules found in Attachment J. No change to the eligibility rules is proposed.

The NYISO proposes significant revisions to Section 4.6.6, which currently describes eligibility and calculation rules for BPCG payments in a wide variety of situations but in a very cursory and confusing manner. The NYISO's proposal breaks Section 4.6.6's provisions into ten Subsections for the purpose of describing, at a high level, the situation pursuant to which each of the ten specified set of Suppliers may be eligible for a BPCG.

The new proposed Subsection 4.6.6.1 describes the BPCG that may be payable to a Generator whose Day-Ahead revenues from Energy, Operating Reserves or Regulation Services are inadequate to cover its Day-Ahead bids for those products.

The new proposed Subsection 4.6.6.2 describes a BPCG that may be payable to a Supplier providing a LBMP Import whose Day-Ahead LBMP revenues are inadequate to cover its Day-Ahead hourly Decremental Bids. While Section 4.6.6 currently indicates that Importers are entitled to a Day-Ahead BPCG when revenues are inadequate to cover their bids, the Tariff fails to recognize the different bids used by Importers as opposed to internal Generators. The NYISO's proposed revisions clarify this potentially confusing description by including a specific reference to the Importers' use of Decremental Bids rather than three-part Energy bids.

The proposed Subsection 4.6.6.3 gathers in a single location the various descriptions of a real-time BPCG that may be payable to a Generator whose real-time revenues are inadequate to cover its real-time bids in intervals other than Supplemental Event Intervals.

The proposed Section 4.6.6.4 describes the calculation of BPCG for Generators during Supplemental Event Intervals.<sup>8</sup> The Tariff currently specifies that Generators providing Energy during Supplemental Event Intervals are eligible for a BPCG for the duration of the event and the three intervals following the event and that such BPCG is not to be included in other BPCG calculations for that Generator. The description is, however, cursory and without sufficient detail to adequately describe the payment. Thus, the NYISO is proposing to expand the description of the BPCG during Supplemental Event Intervals, particularly specifying that the revenues and costs in these intervals are set aside from revenues and costs incurred in other intervals of the day and that a BPCG for these intervals is payable when the revenues earned in the intervals are insufficient to cover the costs incurred in these intervals.

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<sup>8</sup> As mentioned "Supplemental Event Interval" is a proposed new term.

Proposed Subsection 4.6.6.5 describes the real-time BPCG for Importers and follows the amended language described above for the Day-Ahead BPCG for these Suppliers. This is all new language as the current description is very limited.

Similarly, the NYISO's proposed Subsection 4.6.6.6 is new language. This Subsection describes the BPCG payable to a committed long start-up time Generator whose start-up sequence is aborted prior to an actual unit start. The BPCG payable to these units is currently described in Section 4.2.5 of the Services Tariff but has never been cross-referenced to Section 4.6.6 before this.

The new proposed Subsection 4.6.6.7, on the other hand, simply amplifies, for the purpose of clarification, the existing language that describes the BPCG payable for Demand Reduction scheduled Day-Ahead. Provisions describing how the costs of the BPCG and Demand Reduction Incentive Payments to Demand Reduction Providers are allocated are deleted from this section and relocated to OATT Rate Schedule 1 where the allocation of all market costs, not otherwise covered by the Loads' payments of LBMP or Transmission Usage Charges, is described.

Similarly, the NYISO's proposed Subsection 4.6.6.8 clarifies existing language describing the BPCG payable to Special Case Resources. Existing language describing the BPCG calculation for Special Case Resource capacity scheduled Day-Ahead to provide Operating Reserves, Regulation Service or Energy is moved to Attachment C where the detailed calculation is provided.

Finally two new Subsections are proposed, Sections 4.6.6.9 and 4.6.6.10, detailing the Day-Ahead and real-time BPCG which may be paid to a Demand Side Resource scheduled either Day-Ahead or in real-time to provide synchronized Operating Reserves. The existing description of this BPCG is subsumed under current 4.6.6 language describing BPCG payments for Demand Side Resources in general.

#### **D. Revisions to Article 5 of the Services Tariff**

The NYISO proposes limited amendments to Section 5.12.11.1 to specifically reference the location of Special Case Resource BPCG eligibility and payment calculation in Section 4.6.6 and Attachment C of the Services Tariff. The NYISO also proposes relocating to Attachment C the prescriptive calculation rule currently found in 5.12.11.1.

#### **E. Revisions to Rate Schedule 3 of the Services Tariff**

The NYISO proposes clarifying amendments to Subsections 15.3.4.2 and 15.3.5.4 of Rate Schedule 3, Regulation Service, to cross reference the description of the Day-Ahead and real-time BPCGs which may be payable to providers of Regulation Service in Section 4.6.6 of

the Services Tariff and Attachment C. The NYISO also proposes to relocate the calculation detail of such Day-Ahead and real-time BPCGs, currently found in Subsections 15.3.4.2 and 15.3.5.4 of Rate Schedule 3, respectively, to Attachment C.

The NYISO proposes to move to the more logical Subsection 15.3.5.5 a sentence, currently found in Subsection 15.3.5.4, directing the NYISO not to pay Regulation Service Suppliers in excess of their NYISO real-time schedule, unless the NYISO has directed them to supply such additional service. Finally, the NYISO proposes to replace the detailed description of the calculation of a Day-Ahead Margin Assurance Payment that may be available to Regulation Service providers whose Day-Ahead schedules for such service are reduced in real-time by the NYISO with a reference to Section 4.6.5 and Attachment J of the Services Tariff. Precise eligibility and calculation descriptions, including the calculation particularly for Limited Energy Storage Devices, are better included in one place.

The description, in Subsection 15.3.5.5 of Rate Schedule 3, of performance-based adjustments is proposed to be expanded to also include a description of the payments and performance based adjustments to the payments made for Regulation Service. The formula for the performance-based adjustment is clarified and the descriptions of the terms used in the formula are expanded to add clarity. No substantive changes are intended by these clarifications.

#### **F. Revisions to Rate Schedule 4 of the Services Tariff**

The NYISO proposes clarifying amendments to Rate Schedule 4, Operating Reserves. First, the NYISO proposes to relocate the description of a performance index for Operating Reserves Suppliers, which is used to calculate the Day-Ahead Margin Assurance Payment (“DAMAP”) for such suppliers, from Subsection 15.4.3.6 to Attachment J. The NYISO also proposes to delete the DAMAP calculation description from Section 15.4.6.4. and refer the reader, instead, to the DAMAP eligibility and payment calculation provisions found in Section 4.6.5 of, and in Attachment J to the Services Tariff. The complete set of eligibility rules and calculation methodologies for the DAMAP available to these suppliers is included in Attachment J and there is no reason to also describe the calculation or the performance index in Rate Schedule 4 as well.

Similarly, the NYISO is relocating to Section 4.6.6 and Attachment C, the description of the Day-Ahead BPCG payable to Operating Reserves Suppliers currently found in Subsection 15.4.5.2 and the calculation of the real-time BPCG currently found in Subsection 15.4.6.4. The complete calculation of the BPCG available to these suppliers is included in Attachment C and there is no reason to also describe the calculation here as well. The NYISO also proposes to include a cross reference to Sections 4.6.6 and Attachment C in Subsections 15.4.5.2 and 15.4.6.4.

## **G. Revisions to Attachment C of the Services Tariff**

The NYISO proposes restructuring Attachment C into ten subsections to separately discuss the BPCG payments available in each of the ten circumstances currently described in the Services Tariff and / or Attachment C. This restructuring mirrors the Section 4.6.6 restructuring previously discussed and is being proposed for the same reasons. The Services Tariff's current BPCG eligibility descriptions and Attachment C BPCG calculations are brief and lack significant detail. For instance Attachment C currently provides only three formulas: (i) Day-Ahead BPCG, (ii) real-time BPCG for intervals that are not supplemental Event intervals, and (iii) real-time BPCG for all other intervals. As mentioned, the NYISO offers ten separate BPCG payments and the existing three formulas do not provide sufficient detail to adequately describe how each is calculated. Although the details of these individual BPCG calculations have been included in the *Billing and Accounting Manual*, the brevity of Attachment C was often the source of confusion. The NYISO's proposed restructuring brings into Attachment C all eligibility and calculation rules, organized by each type of BPCG payable.

The NYISO proposes an Introduction Subsection (Subsection 18.1) to describe the ten BPCG-eligible circumstances and to clarify that each is separately payable. That is, eligibility for one BPCG during a day need not preclude eligibility for another. Subsection 18.2 describes the BPCG available to Suppliers using the ISO-Committed Fixed and ISO-committed Flexible bid modes for their Generators. Subsection 18.2.1.1 contains the general eligibility standard and Subsection 18.2.1.2 lists the exclusions from eligibility. The NYISO includes in this Section the exclusion from BPCG eligibility of Suppliers bidding either Limited Energy Storage Resources ("LESRs") or units scheduled in other hours of the DAM as the result of a Self-Committed Fixed or Self-Committed Flexible bid. These Subsections clarify existing Services Tariff Section 4.6.6 and Attachment C language. BPCG eligibility for Day-Ahead Suppliers of Imports is described separately in a new Subsection 18.3.

### **1. Day-Ahead BPCG for Generators**

The formula currently found in Subsection 18.1.1 of Attachment C is clarified and included in proposed Subsection 18.2.2 to describe the calculation of a Day-Ahead BPCG for Generators. A new Subsection, 18.2.2.2 includes the existing definitions of the variable terms used in the formula.

The definition of the  $SUC_{gh}^{DA}$  variable has been expanded to clarify that a Generator that fails to operate to satisfy the longer of (a) its Day-Ahead or SRE schedule, or (b) the minimum run time specified in its accepted Day-Ahead Start-Up Bid, will have the start-up component of the BPCG equation prorated in accordance with the rules set forth in proposed Section 18.12 of Attachment C.

The NYISO has also added to the definition of  $SUC_{gh}^{DA}$  language addressing long start-up time Generators currently mentioned in the body of the Services tariff at Section 4.2.5. The

proposed language more clearly describes the Bid used in the BPCG calculation for a long start-up time Generator that actually runs in real-time.

In addition to the clarifications proposed above, the NYISO also proposes changes to the definitions of the following variables in proposed Section 18.2.2.2 as part of its effort to implement Late Day Start:

The definition of the  $MGC_{gh}^{DA}$  variable has been expanded to explain that when Generators that are subject to the Late Day Start rules are operating on the day after the Dispatch Day in which the Generator was started, for purposes of calculating a BPCG for the Generator on that second day, the NYISO will remove from the BPCG equation (“zero out”) Bid minimum generation costs, along with offsetting minimum generation LBMP revenues, for hours that the Generator is expected to operate in order to complete its minimum run time from the previous day. This change is necessary to ensure that the low Minimum Generation Bids that are submitted for a Generator in order to ensure its continued economic commitment for its full minimum run time are not seen by the dispatch or settlement software as creating “margins” (LBMP revenues in excess of the Generator’s Bid costs) that can be used to offset BPCG costs in other hours of the Dispatch Day after the Dispatch Day on which the Generator was started.

For example, assume “Generator B” that has a minimum operating level of 50 MW, appropriately included in its Day-Ahead Start-Up Bid for HB15 expected cost of operating for three hours on the day following the Dispatch Day in which it was started in order to satisfy its minimum run time (as it is expected to do under the proposed new rules). When Generator B is scheduled in the Day-Ahead Market it will recover expected costs of operating on the next Dispatch Day in its BPCG for the Dispatch Day on which the Generator was scheduled to start. For the first three hours of the day following the Dispatch Day in which Generator B was started its owner submits a \$0 Minimum Generation Bid in order to ensure the Generator’s continued economic commitment. Assume LBMPs in the first three hours of the day following the Dispatch Day on which Generator B started-up were \$20/MWh, but the Generator’s “price taker” Minimum Generation Bid indicated it was not incurring any cost to produce the MWh; resulting in an apparent “margin” of \$3000 ( $\$20/\text{MWh} * 50 \text{ MW} * 3 \text{ hours}$ ). The proposed Tariff revision will, effectively, remove the three hours worth of minimum generation costs that were already recovered via a Late Day Start Start-Up Bid, along with the offsetting LBMP revenues, from the BPCG equation for the following Dispatch Day. In our example, this will appropriately prevent any apparent “margins” (LBMP revenues in excess of Minimum Generation Bid costs) earned in the first three hours of the day from being used in commitment decisions regarding, or to determine a BPCG settlement for, Generator B on the day following the Dispatch Day in which it was started-up.

The definition of the  $SUC_{gh}^{DA}$  variable has also been expanded to explain that a Generator will not be eligible to receive BPCG credit for a second start-up in the Day-Ahead Market until its minimum run time plus one hour following its last scheduled Day-Ahead or real-time SRE start has expired. For example, “Generator C” has a minimum run time of eight

hours. If Generator C is scheduled to start in the Day-Ahead Market (or via SRE in the Real-Time Market) in HB20, then Generator C will not be eligible to receive a Day-Ahead BPCG credit for another start-up until (at the very earliest) HB5 of the following Day-Ahead Dispatch Day.

## **2. Day-Ahead BPCG for Imports**

A new Subsection 18.3 is added to describe the BPCG payable to Suppliers providing Imports in the Day-Ahead Market. Eligibility for a Day-Ahead BPCG for Importers is provided in the existing Section 4.6.6 of the Services tariff but no additional calculation information is provided in Attachment C. Instead, the NYISO has been using existing Section 18.1.1 of Attachment C as the basis for its payments. This section is confusing for these purposes in that it references only the bid types used by internal Generators -- Start-Up, Minimum Generation and Incremental Energy Bids, whereas Customers scheduling Imports submit Decremental Bids. This new Subsection provides eligibility rules and, in Subsection 18.3.3, a new formula describing the calculation of a Day-Ahead BPCG for Importers. The NYISO's proposal adds needed specificity to the existing Services Tariff requirement.

## **3. Real-Time BPCG for Generators in Intervals Other Than Supplemental Event Intervals**

Proposed Subsection 18.4 provides eligibility and calculation rules for real-time BPCGs payable to Generators for real-time intervals other than Supplemental Event intervals. The existing formula for this calculation is clarified in Subsection 18.4.2. The existing Section 18.1.2 of Attachment C is confusing because it attempts to combine into a single formula the calculation of a real-time BPCG for Imports with the real-time BPCG for Generators. Because of the different Bid-types used by internal Generators and Imports, this existing Attachment C Section is difficult to decipher and unclear in its application. The NYISO proposes to remedy those shortcomings by slightly amending the current formula and using it for Generators only. A new formula is proposed to be included in a new Subsection 18.6 describing the real-time BPCG for Imports. It is discussed in greater detail below.

The NYISO proposes to include in Subsection 18.4.1.2.3 a clarification of the existing rule that, with a variety of exceptions, a Generator is ineligible for a BPCG payment if in other hours of the day it used the Self-committed or Self-committed flexible bid mode.<sup>9</sup> The current ineligibility rule, found in Section 4.6.6 of the Services Tariff, is brief and the Section's descriptions of the circumstances under which the use of the self-committed bid mode in other hours of the day does not exclude a BPCG payment for the day, are not proximate to the

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<sup>9</sup> A real-time BPCG may be payable notwithstanding the use of a: (i) Self-committed fixed bid mode by a Generator during its Start-up or Shut-down Period, or its Testing Period or (ii) Self-committed flexible bid mode when the Generator's real-time self-committed minimum generation level does not exceed its Day-Ahead minimum generation level. *See* Section 4.6.6.

exclusion itself and are written in a cursory way. The NYISO's restatement of the rule clarifies not only the exclusion but also the exceptions to the exclusion.

The NYISO proposes a clarified real-time BPCG calculation formula in Subsection 18.4.2. The NYISO proposes to modify terms currently found in Subsection 18.1.2 of Attachment C, in the manner described below.

In Section 18.4.2 the NYISO proposes to add to the definition of  $C_{gi}^{RT}$  the exclusion of costs and revenues in intervals in which the Generator is ramp rate constrained down. This exclusion is currently found in the first paragraph following Section 18.1.2's list of terms in the existing Attachment C.

One of the few substantive tariff changes being proposed in this filing is to not exclude from  $C_{gi}^{RT}$  intervals in which the dispatch of the Generator is constrained by its downward ramp rate for that interval, if the Generator was scheduled to provide Regulation Service. This change allows a more equitable settlement for units providing Regulation Service. The NYISO also proposes to replace the description of supplemental event intervals, in the definition of the term M, with a newly proposed defined term "Supplemental Event Interval," as discussed above.

The definition of the  $SUC_{gi}^{RT}$  variable has been expanded to clarify that a Generator that fails to operate to satisfy the longer of (a) its Day-Ahead or SRE schedule, or (b) the minimum run time specified in its accepted real-time Start-Up Bid, may have the start-up component of the BPCG equation prorated in accordance with the rules set forth in proposed Section 18.12 of Attachment C. The other provisions in the definitions of  $SUC_{gi}^{RT}$  (ii and iii) have been relocated here from paragraphs that originally followed the list of terms.

The NYISO proposes a clarification for the existing BPCG calculation for intervals in the last five or ten minutes of an hour in Section 18.4.3. This rule, implemented by the NYISO since start-up and explained in the Accounting and Billing Manual, has not appeared in the Services Tariff before this. The rule describes that for the RTD intervals that start in the last five minutes of an hour<sup>10</sup> the NYISO will calculate any BPCG payable using the bids submitted for the following hour. For RTD-CAM intervals starting ten minutes before the hour, the NYISO will use the next hour bids as well.<sup>11</sup>

In addition to the clarifications described above, the following further/additional revisions to the definitions set forth in Section 18.4.2 are proposed to permit the NYISO to implement its Late Day Start rules:

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<sup>10</sup> Dispatch signals provided in the interval starting in last five minutes of an hour direct Suppliers behavior for the first five-minute interval after the top of the hour.

<sup>11</sup> RTD-CAM intervals direct Supplier behavior for Supplemental Events.

The definition of the  $MGC_{gi}^{RT}$  variable has been expanded to explain that when a SRE-committed Generator that is subject to the Late Day Start rules is operating on the day after the Dispatch Day on which it was started, for purposes of calculating a BPCG for the Generator on that second day, the NYISO will remove from the BPCG calculation Bid minimum generation costs, along with offsetting minimum generation LBMP revenues, for hours that the Generator is expected to operate in order to satisfy its minimum run time. This change is necessary to ensure that the low Minimum Generation Bids that are submitted for a Generator in order to ensure its continued economic commitment for the remainder of its minimum run time are not seen by the dispatch or settlement software as creating “margins” (LBMP revenues in excess of the Generator’s Bid costs) that can be used to offset BPCG costs in other hours of the day after the Dispatch Day on which the Generator was started. An example is provided in the discussion of the  $MGC_{gh}^{DA}$  variable above, indicating why this treatment is appropriate.

The definition of the  $SUC_{gi}^{RT}$  variable has also been expanded to explain that a Generator will not be eligible to receive a real-time BPCG credit for a second start-up until its minimum run time plus one hour following its last scheduled Day-Ahead or real-time SRE start-up has expired. For example, “Generator D” has a minimum run time of eight hours. If Generator D is scheduled to start in the Day-Ahead Market (or via SRE in the Real-Time Market) in HB20, then Generator D will not be eligible to receive a real-time BPCG credit for another start-up until (at the very earliest) HB5 of the following real-time Dispatch Day.

#### **4. BPCG for Generators In Supplemental Event Intervals**

The NYISO proposes a new Section 18.5 to describe the BPCG available during Supplemental Event Intervals. The existing Attachment C contains a formula for these BPCG calculations but does not provide significant detail. The NYISO is also proposing three minor revisions to the calculation it currently uses for Supplemental Event Interval BPCG.

The NYISO proposes not to repeat in the term  $C_{gi}^{RT}$  the exclusion, found in Section 18.4.2, of intervals when a Generator is ramp constrained down when calculating the Bid Production Cost guarantee for Supplemental Event Intervals. Thus, the Supplemental Event BPCG will protect Energy bids for all intervals including those during which a Generator is ramp rate constrained down. Generators who are directed to reduce output during a Supplemental Event, but are constrained by their ramp from moving as fast as their basepoint directs, should have their Energy costs protected during this NYISO-directed output reduction, as LBMPs may drop rapidly. Thus, NYISO proposal ensures that concerns about cost recovery will not hinder a Generator, directed to reduce output during one of these Supplemental Event situations, from doing so as quickly as possible.

The second change to the current BPCG calculation for Supplemental Event intervals is to exclude from a Supplemental Event BPCG, in Section 18.5.1.2, Generators that are ineligible for a BPCG payment during non-Supplemental Event intervals (*e.g.*, because they are bidding as

fixed resources) unless the NYISO has an emergency under Section 4.4.4.1.2 of this Services Tariff.

Generators are not eligible for a real-time BPCG, under Section 18.5.1.2, if they use the Self-Committed Fixed Bid Mode, or the Self-Committed Flexible Bid Mode with minimum generation levels that exceed those submitted Day-Ahead. These units are putting themselves at specified operating levels, rather than asking the NYISO to dispatch them to those levels based on the real-time LBMPs. Since their schedules are not the result of an economic dispatch, their costs should not be protected through a BPCG for a Large Event Reserve pickup. It is appropriate, however, to continue their eligibility for a BPCG during Maximum Generation pickups as they are expected to increase output notwithstanding their bid type during these intervals. Thus, the new Section 18.5.1.3 affirms that units using Self Committed Fixed or Self Committed Flexible bid modes are eligible for a BPCG for intervals in which the ISO has called an emergency under Section 4.4.4.1.2 of this Services Tariff.

Finally, the NYISO proposes to include Supplemental Event intervals in this calculation even if they occur across midnight. The BPCG for Supplemental Events includes bid protections for the three intervals following the conclusion of the Supplemental Event to protect the Generator's bids while it returns to an economically determined output level. Although BPCG calculations, as a rule, conclude with the last interval in the day, Generators responding to Supplemental Events that conclude just prior to midnight should be protected for these three additional intervals even if they cross midnight.

## **5. Real-Time BPCG for Imports**

The NYISO proposes a new Section 18.6 of Attachment C describing the real-time Bid Production Cost Guarantee payment for Suppliers scheduling Imports whose LBMP revenues over the day do not cover their Decremental Bids. The NYISO proposes relocating the exclusion from a BPCG for Imports, at a Non-Competitive Proxy Generator Bus, currently found in Section 4.6.6 of the Services Tariff, when that Non-Competitive Proxy Generator Bus or the Interface between the NYCA and the Control Area in which the Non-Competitive Proxy Generator Bus is located is export constrained due to limits on available Interface Capacity or Ramp Capacity for that Interface for that hour. Similarly, pursuant to the relocated Import exclusion currently found in Section 4.6.6 of the Services Tariff, no Import BPCG is payable when a Proxy Generator Bus that is associated with a designated Scheduled Line is export constrained due to limits on available Interface Capacity in an hour.

For clarification, the NYISO proposes a new Section 18.6.2 indicating that Import BPCGs are specific to individual transaction identifiers and are not summed across transaction Identifiers for a single Billing Organization. The proposed Import BPCG formula in Section 18.6.3 is derived from Attachment C's existing real-time BPCG formula, adapted for Imports.

**6. BPCG for Long Start-Up Time Generators When Starts Are Aborted by the NYISO**

The NYISO's proposed new Section 18.7 provides additional detail on the BPCG which would be payable if a long start-up time Generator had begun its start-up sequence but aborted it before completion at the direction of the NYISO. The NYISO has relocated the last paragraph in Attachment C, which provided an overview of this calculation, to this new Section and adds some clarifying language.

**7. BPCG for Demand Reduction in the Day-Ahead Market**

The NYISO proposes to expand Attachment C's existing language describing the BPCG payable to Demand Side Resources in the Day-Ahead Market, currently found in Section 18.2, by adding a new Section 18.8. The calculation is patterned after other Day-Ahead BPCG calculations but employs the bid terms specific to Demand Side Resources. This section also sets forth the payment prorating that the NYISO will apply if the resource fails to complete its scheduled reduction.

**8. BPCG for Special Case Resources**

The NYISO's proposed new Section 18.9 builds on and clarifies the existing language found in Section 18.3 describing the BPCG payable to Special Case Resources whose LBMP revenue does not cover its Minimum Payment Nomination. Pursuant to Section 5.12.11.1, the Minimum Payment Nomination during a test period is not protected by a BPCG.

**9. BPCG for Demand Side Resources Providing Synchronized Operating Reserves in the Day-Ahead Market**

The NYISO proposes to clarify existing Section 18.4.1 of Attachment C in a new Section 18.10 describing the BPCG payable to Demand Side Resources offering synchronized Operating Reserves when their availability payments for such ancillary service do not cover the bids provided for those services in the Day-Ahead Market. The additional detail clarifies the calculation to be performed.

**10. BPCG for Demand Side Resources Providing Synchronized Operating Reserves in the Real-Time Market**

Similarly the NYISO proposes to clarify existing language found in existing Section 18.4.2 of Attachment C in a new Section 18.11 describing the BPCG payable to a Demand Side Resource offering synchronized Operating Reserves in the real-time market when its availability payments for such ancillary service do not cover the bids provided for those services. The additional detail clarifies the calculation to be performed.

**11. Rules Addressing Proration of Start-Up Bids for Generators that are Committed in the Day-Ahead Market or via Supplemental Resource Evaluation**

The NYISO proposes to add a new Section 18.12 to Attachment C that sets forth detailed rules for determining when a Start-Up Bid submitted by a Generator that is committed in the Day-Ahead Market or via Supplemental Resource Evaluation should be prorated. The proposed proration rules apply when a Generator fails to operate in real-time to satisfy the longer of (a) its Day-Ahead or SRE schedule, or (b) the minimum run time specified in the Bid parameter that accompanied its accepted Start-Up Bid. A Generator that fails to operate in real-time at its minimum operating level for the entire specified period will have the start-up component of the BPCG equation prorated, unless the Generator's failure to operate at its minimum operating level occurred because the Generator was derated by the NYISO, or at the request of a Transmission Owner, for reliability. The proration rules set forth in Section 18.12 apply both to Generators that are able to complete their schedule/minimum run time within a Dispatch Day and to Late Day Start Generators that must operate on the day following the Dispatch Day in which the Generator was started-up in order to complete its minimum run time.

The NYISO will derive the necessary hourly values by evaluating whether the Generator produced Energy in real-time at its minimum operating level on an interval-by-interval basis. Measuring real-time Generator output at an interval-by-interval level is necessary to accurately capture variances in output across each hour. For example, a Generator with a minimum operating level of 50 MW could generate 100 MW for the first 30 minutes of an hour, and zero MW for the next 30 minutes. If the NYISO were to use the average MWh produced over the course of the hour to perform the proration calculation, the Generator would appear to have satisfied the minimum generation MWh required to avoid a *pro rata* reduction to the start-up component of its Bid for that hour. The appropriate method of performing the calculation under the circumstances described is to credit the Generator as having operated for half of the hour, and prorating the Generator's Start-Up Bid consistent with its actual real-time operation.

**12. Discussions with Stakeholders Regarding BPCG for Internal Bilateral Transactions**

Finally the NYISO notes that it has begun a review with its Market Participants of the methodology currently employed to calculate BPCGs, both Day-Ahead and in real-time, for Generators with Bilateral Transactions (*i.e.*, Transmission Service) scheduled from their Generator bus.<sup>12</sup> Since these transactions do not result in LBMP revenues, the NYISO excludes the bid costs and revenue for Energy produced to support the Bilateral Transaction schedule

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<sup>12</sup> See NYISO Presentation, *Proposed Bid Production Cost Guarantee Enhancements*, (November 2009), available at, [http://www.nyiso.com/public/webdocs/committees/bic\\_miwg/meeting\\_materials/2009-11-16/Nov\\_MIWG\\_Bilaterals\\_RT\\_Reg.pdf](http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2009-11-16/Nov_MIWG_Bilaterals_RT_Reg.pdf)

from the BPCG calculation for the day. However, the NYISO's Services Tariff is less than clear on this issue. The NYISO has based its current BPCG methodology, since market start, on the description of the BPCG calculation in Section 4.6.6:

The ISO shall determine, on a daily basis, if any . . . Generator. . . , or Customer that schedules imports, that is committed by the ISO in the Day-Ahead Market will not recover its Minimum Generation Bid, Start-Up Bid, and Energy Bid Price through Day-Ahead LBMP and Day-Ahead Ancillary Services revenues. If the sum of the Minimum Generation Bid, Start-Up Bid and the net Energy Bid Price over the twenty-four (24) hour day of such a Generator or Importer exceeds its Day-Ahead LBMP revenue over the twenty-four (24) hour day, then that Generator or Importer's Day-Ahead LBMP revenue may be augmented by a supplemental Day-Ahead Bid Production Cost guarantee payment calculated pursuant to the provisions of Attachment C to this ISO Services Tariff.

The manner in which the NYISO excludes bilateral revenues and costs from the BPCG calculation is also described in detail in the NYISO's Accounting and Billing Manual, which is currently under revision. While the Market Participants agree that the current practice is supported by the existing Tariff, they and the NYISO agree the better approach is to include the costs of bilaterally-sold Energy in the BPCG calculation as well as revenues deemed to be equal to the LBMP at their Generator bus in that hour. The NYISO and its Market Participants will consider this with its other 2011 projects as a future effort.

#### **H. Revisions to Attachment H of the Services Tariff**

To implement Late Day Start, the NYISO proposes changes to its Mitigation Measures that are set forth in Attachment H to the Services Tariff. All but one of the proposed changes to the Mitigation Measures address the method that the NYISO will use to calculate reference levels for Late Day Start Generators.

Section 23.3.1.4 of the Mitigation Measures addresses the calculation of reference levels for Generators. The first proposed change is to Section 23.3.1.4.1.1 of the Mitigation Measures, which specifies the method that the NYISO uses to calculate Bid-based reference levels for Generators. The NYISO proposes to add a new sub-section (ii), which will require the NYISO to exclude Minimum Generation Bids submitted on behalf of a Generator that is bidding to ensure that it is scheduled on the day after the Dispatch Day on which the Generator was started-up so that the Generator can complete its minimum run time. Because such a Generator is expected to Bid to ensure its continued commitment, its Bids are not likely to accurately reflect the Generator's marginal costs (a portion of which were already recovered in the Generator's Start-Up Bid for the previous Dispatch Day), and should not be used to develop reference levels.

The NYISO proposes a similar change to Section 23.3.1.4.1.2 of the Mitigation Measures, which addresses the development of LBMP-based Generator reference levels. In this case the NYISO proposes to add a new sub-section (iii), which requires the NYISO to exclude from its development of LBMP-based reference levels hours that a Generator must operate on the day after the Dispatch Day on which the Generator was started-up so that the Generator can complete its minimum run time. But for the need to complete its minimum run time, the Generator's operation might not be economically justified in these hours (which will necessarily include off-peak, late-night and early-morning hours).

Section 23.3.1.4.4 of the Mitigation Measures addresses the development of start-up reference levels. The NYISO proposes numerous changes to this Section.

The NYISO moves from Sections 23.3.1.4.4.1 and 23.3.1.4.4.2 to Section 23.3.1.4.4.3 all language addressing Generators' ability to recover costs of operating on the day after the Dispatch Day on which the Generator was started-up in its Start-Up Bid. The NYISO also proposes to add to Section 23.3.1.4.4.1, which addresses the development of Bid-based start-up reference levels, a statement that Start-Up Bids that incorporate Late Day Start costs will not be used to develop Bid-based start-up reference levels. This change is appropriate because it would be impossible for the NYISO to "unravel" the Late Day Start Bid submitted for a Generator and to determine the portion of the total Bid that represents the cost of starting-up, as opposed to the cost of operating on the day following the dispatch day in order to satisfy the Generator's minimum run time.

Proposed new Section 23.3.1.4.4.3 contains the rules for calculating reference levels for a Generator that is committed in the Day-Ahead Market or via a SRE, that is not able to complete its minimum run time within the Dispatch Day on which the Generator is started-up. The reference level that the NYISO develops is designed to incorporate the net costs (costs less LBMP revenues) that the Generator is expected to incur for the hours it must operate in order to satisfy its minimum run time on the day following the Dispatch Day on which the Generator is started-up. The proposed calculation is set forth in Section 23.3.1.4.4.3.1. The calculation can be summarized as follows:

Start with the Generator's start-up reference level. For each hour that the Generator must run on the day following the Dispatch Day on which the Generator was started-up in order to complete its minimum run time, the NYISO proposes to add the Generator's expected cost of operating at its minimum operating level, net of the LBMP revenues that the Generator is expected to receive in each hour from producing energy at its minimum operating level. The NYISO will then sum the hourly costs and revenues to determine the amount to add to the Generator's start-up reference level. If the sum of the expected net revenues exceeds the sum of the expected net costs, the remainder shall not be used to reduce a Generator's start-up reference level.

Proposed Section 23.3.1.4.4.3.2 sets forth the rules for calculating the LBMP revenues that the Generator is expected to receive in each hour from producing energy at its minimum operating level and for calculating a “Shortfall Ratio” which is the expected difference between costs and revenues. If the Generator has submitted Day-Ahead Bids for the past seven days for the relevant operating hour the NYISO uses the average minimum operating level (in MW) over the past seven days, and the average of the LBMPs for the relevant operating hour to arrive at the expected LBMP revenues. On the cost side of the equation, the NYISO uses the \$/MWh cost expressed in the Generator’s Minimum Generation Bid, but sets the MWs equal to the average minimum operating level MWs over the past seven days.

If a Generator failed to Bid in the Day-Ahead Market in the relevant hour on any of the seven days prior to the Dispatch Day in question, that day is left out of the Shortfall Ratio calculation (so the averages are calculated based on six days worth of data, or five days worth of data, etc.). A Shortfall Ratio calculation method is also specified for hours when there are no Bids available over the past seven days. An alternative method of calculating the Shortfall Ratio applies when the minimum operating (MW) level submitted for a Generator varies from the average minimum operating level submitted for the Generator in that hour over the past seven days by more than the greater of 5 MW or 10% of the Generator’s minimum operating level.

Finally, the NYISO proposes to amend Section 23.5.2.1 of the Mitigation Measures to clarify that the Late Day Start rules will be applied to Generators that are committed in the Day-Ahead Market to address local reliability needs in New York City.

#### **I. Revisions to Attachment J of the Services Tariff**

The NYISO proposes revisions to Attachment J, the Attachment which contains the specific calculations for the Day-Ahead Margin Assurance Payment (“DAMAP”), to add clarifying detail to its existing five sections and to add a sixth, described in greater detail below, containing the rules for the Import Curtailment Guarantee Payment. No substantive changes are proposed.

Minor changes to the Introduction indicate that eligibility rules are set forth in the body of Attachment J, including the eligibility of Limited Energy Storage Resources. A new Subsection 25.2.1 is added to specifically address eligibility requirements for Suppliers although no changes to such rules are proposed. The NYISO proposes to delete the margin test for Energy Limited Resources with ISO-approved real-time reductions in their schedules currently found in Section 25.2.1(v). These units are eligible for a DAMAP without regard to whether their total margin for the day after a real-time schedule reduction is less than the margin they would have earned had they not had their real-time schedule adjusted by the NYISO.

A new Subsection 25.2.2 introduces exemption language that is currently found in Section 25.2. The NYISO also proposes to relocate to Subsection 25.2.2 the exemption from

DAMAP eligibility for Intermittent Power Resources that depend on wind as their fuel, previously found in Subsection 25.2.

In Section 25.6, the Calculation of DAMAP, the NYISO proposes to relocate the DAMAP calculation for Limited Energy Storage Resources to a new Subsection 25.3.3. Clarifications to existing formulas and terminology are provided to indicate real-time Energy schedules are provided to Generators not Suppliers.

The NYISO proposes to renumber as 25.3.2.1 existing Section 25.3.2 containing the DAMAP formula for Demand Side Resources and to add a new title. Very minor clarifying details are added. The NYISO also proposes to relocate, from Subsection 15.4.3.6 of the Services Tariff Rate Schedule 4 to a new Subsection 25.3.2.2, the existing description of the Reserve Performance Index ( $RPI_{iu}$ ), used in the DAMAP calculation for Demand Side Resources. No substantive changes are proposed in the description although the NYISO proposes to add, for clarity, a formula indicating how the description language is translated into a mathematical equation.

In a renumbered Subsection 25.3.4, “Terms used in Attachment J,” the NYISO proposes clarified descriptions of the terms  $LL_{iu}$  and  $UL_{iu}$  to better describe their calculations in a variety of situations. No substantive changes are proposed. The term  $RPI_{iu}$  is deleted as redundant of the information now found in Subsection 25.3.2.2.

The NYISO proposes to delete the first paragraph in Section 25.3.4 describing how the Automated Generation Control (“AGC”) basepoints for a Supplier not providing Regulation Service are initialized and ramped and stating that the AGC basepoints for Suppliers providing Regulation Service are determined based on minimization of area control error. The information in this paragraph is unrelated to the subject matter of Attachment J and was provided until now for informational purposes only. Moreover, language in the Services Tariff, Rate Schedule 3, “Payments for Regulation Service” describe the NYISO’s use of the NYISO’s compliance with NERC, NPCC standards and Good Utility practice for Control Performance and System Security as the basis for AGC basepoints.

The first sentence in Section 25.4 is deleted as redundant of the balance of the Section and confusing in that context. A new Section 25.6 is proposed containing the description of an Import Curtailment Guarantee currently found in Services Tariff Section 4.5.3.2. The descriptive text is proposed to be augmented, as the NYISO has done for a variety of these calculations, with a formula. No substantive changes from the calculation currently performed pursuant to Section 4.5.3.2 are introduced in this new Section 25.6.

### **III. Description of Proposed Changes to the OATT**

#### **A. Revisions to Rate Schedule 1**

Adjustments to the descriptions of the allocations for several of the Rate Schedule 1 market costs are proposed and clarifying changes are made throughout Rate Schedule 1 to better describe the allocation of costs to various Transmission Customers. No changes to the allocation of ISO Budget costs or FERC fees are proposed. With one exception, described below, no substantive changes to the allocation of market costs are included here. All other changes are clarifying in nature.

The NYISO proposes to delete the generalized description of billing units for the allocation of Demand Reduction Incentive Payments in Section 6.1.2.1 as the allocation of those costs is the topic of a new Section 6.1.7. As well, the NYISO proposes to delete the generalized description of the allocation of BPCG paid to Resources committed during the NYISO's Day-Ahead Forecast Pass as the allocation of those costs is more specifically described in the new Section 6.1.7.2. Subsection 6.1.2.1 of Rate Schedule 1 is also amended to cross-reference new Subsections describing the allocation of specific costs, as described below.

The NYISO proposes several clarifications to Section 6.1.2.2.4 "Residual Adjustment and Bid Production Cost Guarantee Component." The NYISO proposes to amend Section 6.1.2.2.4 and describe the Residual Adjustment as four cost components: i) Residual Costs; ii) the cost of payments to Special Case Resources and Curtailment Service Providers; iii) the cost of payments for DAMAP; and iv) the cost of payments for Import Supplier Guarantee payments. Each of these cost categories is currently allocated as part of the undifferentiated "Residual Adjustment" currently described in subsection 6.1.2.2.4.

The first category of costs in the Residual Adjustment, 'Residual Costs,' includes those costs listed included in Section 6.1.4.1. The existing cost allocation rules are retained for 'Residual Costs,' in a renumbered Section 6.1.2.2.4. The first of two subparts, Section 6.1.2.2.4.1.1, describes the allocation of Residual Costs to Transmission Customers based on the load ratio share of their Energy Withdrawals for Transmission Service to supply Load in the NYCA and hourly Energy Schedules for Wheels through and Exports to all hourly Energy Withdrawals for Transmission Service to supply Load in the NYCA and hourly Energy Schedules for Wheels through and Exports.

The second subpart, 6.1.2.2.4.1.2, also retains existing language for the purpose of describing the allocation of 'Residual Costs' to Transmission Customers providing Station Power as Third party Suppliers. The rules are also clarified. Third party Suppliers pay a daily charge calculated as the ratio of their Station Power load for the day to all Withdrawals to supply Load in the NYCA for the day and Energy Schedules for Wheels through and Exports for the day multiplied by the Residual Costs. This payment is then credited to all other Transmission Customers on a ratio share of their load for the day.

The NYISO proposes to relocate specific language describing the allocation of Bid Production Cost Guarantee to Sections 6.1.2.2.5 and 6.1.7.1. The NYISO also proposes to relocate and clarify the allocation of Bid Production Cost Guarantee payments paid to Resources committed during the NYISO's Day-Ahead Forecast Pass to a new subsection 6.1.7.2.

The NYISO proposes a new subsection 6.1.2.2.4.2 to generally describe the allocation of the costs of the second component of the Residual Adjustment, the cost of payments to Special Case Resources (SCR) and Curtailment Service Providers (CSP) to loads of Transmission Customers other than those acting as third party suppliers of Station Power. These costs have been allocated through the Residual Adjustment manually. In developing the software to automate this settlement, the NYISO proposes not to allocate the costs of payments made to Customers providing Special Case Resource and Emergency Demand Response services to Transmission Customers taking service according to the provisions of Part 5 of the OATT to supply Station Power as third party providers (Station Power customers). This is the only substantive change the ISO is proposing here. The cost of developing the software code to separately allocate a share of each of these costs to withdrawals provided as Station Power by Transmission Customers acting as third party suppliers of Station Power outweighs the nearly inconsequential contribution to the recovery of these costs that such an allocation would provide. The two remaining cost components of the Residual Adjustment are assigned hourly to Loads and daily to withdrawals provided as Station Power by Transmission Customers acting as third party suppliers of Station Power under existing practice.

The NYISO proposes a new Section 6.1.2.2.4.3 to identify the location of language describing the allocation of the third component of the Residual Adjustment, the cost of Day-Ahead Margin Assurance Payments. The existing hourly allocation of these costs to Transmission Customers is retained and described in a new Section 6.1.5 of Rate Schedule 1.

The NYISO proposes a new subsection 6.1.2.2.4.4 to identify the location of language describing the allocation of the fourth component of the Residual Adjustment, the cost of Import Supplier Guarantee payments. The existing hourly allocation of these costs to Transmission Customers is retained and described in a new Section 6.1.6 of Rate Schedule 1.

The NYISO proposes to clarify the provisions of Section 6.1.4 by relocating the description of the costs of Bid Production Cost Guarantees, to a new Section 6.1.7. The NYISO also proposes several clarifications, none of which are substantive, in Section 6.1.4.1, which is now describing only Residual Costs.

The NYISO proposes to describe in detail the allocation of the costs of payments made to Special Case Resources and Curtailment Service Providers in Section 6.1.4.2, separately describing the allocation depending on whether these Suppliers were called to meet the reliability needs of a local system or statewide. As noted above, these costs will not be allocated

to load provided as Station Power by Transmission Customers acting as Third Party Suppliers according to Part 5 of the OATT.

Pursuant to Section 6.1.4.2.1, payments to these providers, when called to provide reliability services to a local system, are allocated to Transmission Customers serving load in that subzone (other than Third Party Station Power load, Wheels through and Exports) based on their hourly load ratio share of Energy Withdrawals in that subzone. Similarly, pursuant to subsection 6.1.4.2.2, payments to these providers, when called to provide statewide reliability services, are allocated to Transmission Customers serving load (other than Third Party Station Power load) in all zones based on their hourly load ratio share of Energy Withdrawals in that hour and their hourly schedules for Wheel through and Exports. Charges incurred to meet local reliability are not charged to Wheels through and Exports, for which energy is withdrawn at Proxy Generator Buses, as there are no Proxy Generator Buses in any subzone. Since Proxy Generator buses are located in the Control Area, withdrawals from these buses are appropriately charged for statewide reliability services. This is current practice.

A new Section 6.1.5 is proposed to describe the allocation of Day-Ahead Margin Assurance Payments. These too are currently allocated as Residual Costs. Pursuant to Section 6.1.5.1, DAMAP paid to providers whose real-time schedule has been reduced by the NYISO to manage reliability for a local system, are allocated to Transmission Customers serving load in that subzone based on their hourly load ratio shares of Energy Withdrawals in that subzone.

Pursuant to Section 6.1.5.2, Day-Ahead Margin Assurance Payments to Suppliers whose real-time schedule has been reduced by the NYISO for any other reason are allocated to Transmission Customers serving load in all zones based on the hourly load ratio share of their Energy Withdrawals and Energy schedules for Wheels through and Exports in that hour to all withdrawals in the NYCA and scheduled Exports and Wheel through in that hour. These Day-Ahead Margin Assurance Payments had also, previously, been allocated as an incorporated portion of Residual Costs. No substantive change to the allocation methodology is being proposed.

The NYISO also proposes a new Section 6.1.6 to allocate the hourly costs of Import Curtailment Guarantee payments to Transmission Customers serving load in the NYCA and scheduling Exports and Wheels through. To do so the NYISO proposes to allocate such costs on the basis of a Transmission Customer's hourly load ratio share of withdrawals in the NYCA and hourly scheduled Exports and Wheels through to all hourly withdrawals in the NYCA and hourly scheduled Exports and Wheel through. These Import Guarantee payments had also, previously, been allocated as an incorporated portion of Residual Costs. No substantive change to the allocation methodology is being proposed.

An extensive new Section 6.1.7 is being proposed to describe, in six Subsections, the allocation of Bid Production Cost Guarantees ("BPCG"). In Subsection 6.1.7.1, the NYISO has relocated the instruction, currently found in Section 6.1.2.1 of Rate Schedule 1, to allocate

BPCG and Demand Reduction Incentive Payments made to Demand Reduction Providers pursuant to the allocation methodology set forth in Attachment R. These are incentive and BPCG payments made under the NYISO's Day-Ahead Demand Response Program.

In new Subsection 6.1.7.2., the NYISO proposes to relocate the description of the allocation of BPCG paid to Resources committed in the Day-Ahead market to meet forecast load from its existing location in Subsection. 6.1.2.1 of Rate Schedule 1. The new Subsection reflects existing language which allocates these costs pursuant to Attachment T and provides clarifying additions and deletions. No substantive changes are proposed.

In new subsection 6.1.7.3., the NYISO proposes to separately describe the allocation of Bid Production Cost Guarantees ("BPCGs") paid to Suppliers, other than Special Case Resources, meeting the reliability needs of local systems. These costs are allocated hourly to Transmission Customers on the basis of their hourly load ratio share of withdrawals in that subzone to all hourly withdrawals in that subzone. No substantive change to the allocation methodology is being proposed.

The NYISO proposes in new subsection 6.1.7.4. to allocate the costs for Bid Production Cost Guarantee payments incurred to compensate Special Case Resources called to meet the reliability needs of a local system to Transmission Customers on the basis of their daily load ratio share of withdrawals in that subzone, other than withdrawals to provide Station Power as a third party provider under Part 5 of the OATT for the day, to all daily withdrawals in that subzone in that subzone.

In proposed subsection 6.1.7.5., the NYISO proposes to allocate the costs for Bid Production Cost Guarantee payments incurred to compensate Special Case Resources called to meet statewide reliability needs to Transmission Customers on the basis of their daily load ratio share of withdrawals, other than withdrawals to provide Station Power as a third party provider under Part 5 of the OATT for the day, to all daily withdrawals.

In proposed subsection 6.1.7.6, the NYISO proposes to allocate the costs of all other Bid Production Cost Guarantee payments made to Suppliers, including Bid Production Cost guarantee payments for additional Resources that are not recovered through the methodology in Attachment T of this ISO OATT, to Transmission Customers on the basis of their daily load ratio share of withdrawals to all daily withdrawals.

Additional clarification of these payment calculations has been approved by NYISO stakeholders and by the NYISO Board in July. They will be filed with the Commission within the next 60 days.

## **B. Revisions to Attachment T**

In its first iteration of the NYISO's Day-Ahead Market commitment solution, the NYISO commits generating units to meet Load that bid either to take bilaterally scheduled energy or to buy LBMP energy (including Bids for Virtual Load). When this bid-in Load is less than the ISO's Day-Ahead forecast of Load, the ISO may commit additional Resources ("Additional Resources") to ensure that there are sufficient Resources to provide for the safe and reliable operation of the NYS Power System. Attachment T provides a specialized methodology for allocating the cost of Bid Production Cost Guarantees made to Additional Resources unless real-time load comes in at the level of, or greater than, Day-Ahead purchases, in which case there is no Attachment T allocation of BPCG paid to Additional Resources. BPCG payments made to Additional Resources that are not allocated pursuant to this Attachment T methodology are allocated to Transmission Customers according to the provisions of Rate Schedule 1, Section 6.1.7.6.

The NYISO proposes several clarifications to Attachment T although none change the allocation process the Attachment describes. Several simplifying editorial changes are proposed for the first paragraph. In the second, the NYISO proposes to replace the phrase previously used to describe the Customers to whom the Attachment T allocation is made: "Transmission Customers to the extent that [they] were not acting as Suppliers" with a new term "Eligible Transmission Customers." The NYISO proposes to define these customers, for purposes of Attachment T, as:

Transmission Customers that are scheduled to sell Energy at a Load bus specified for Virtual Transactions in the day-Ahead Market . . . or purchasing Energy to serve load in the real-time market at a Load bus that is not a Load bus specified for Virtual Transactions and not a Proxy Generator Bus."

The set of Customers identified by the new term is the same set of customers previously identified; no changes are proposed in the set of customers to whom this allocation is made.

The NYISO proposes no changes to the principal formula describing the allocation to each Eligible Transmission Customer but does introduce new terms and clarifies many of the existing terms. The principle formula allocates to each Eligible Transmission Customer a share of the total BPCG paid to Additional Resources for the day by applying three scaling factors. The NYISO proposes replacing the equation that develops the first scaling factor,  $K_L^{fe}$ , with one that more clearly demonstrates the desired result. The factor  $K_L^{fe}$  is the ratio of the purchases, by zone, in real-time by all Eligible Transmission Customers ( $RTP_L^{act}$ ), for all hours of the day in which such purchases are positive, to the sum for the day of hourly sales in the Day-Ahead market at the Virtual Transaction bus in the zone by Eligible Transmission Customers and the hourly excess of the Day-Ahead forecast load for the zone over Day-Ahead purchases plus internal bilateral schedules ( $RTP_L^{cst}$ ) at Load buses in the zone for each hour for hours in which the excess is a positive number.

The NYISO has also clarified the calculation of  $RTP^{fcst}_L$  by adding language clarifying that purchases of energy from the Day-Ahead market include purchases at Virtual load Buses and bilateral purchases but do not include purchases at proxy generator buses.

Similarly, the NYISO proposes to clarify the term  $K^{loc}_L$ , which allocates total BPCG paid to Additional Resources by zone. By rephrasing the formula for  $K^{loc}_L$ , and clarifying the description of the term  $RTP^{fcst}_L$ , the NYISO more clearly describes  $K^{loc}_L$  as the ratio of all Eligible Transmission Customer's daily Energy purchases in the real-time market, by load zone, for hours in which the zonal purchases are positive, to the total of all daily Energy purchases in the real-time market by Eligible Transmission Customers, for all zones, for hours of the day in which the zonal purchases are positive. The NYISO also proposes to replace the formula for calculating  $K^{customer}_{c,L}$ , the last scale factor for allocating to each Eligible Transmission Customer its share of BPCG paid to Additional Resources. As noted above  $K^{loc}_L$  allocates the amount of BPCG paid to Additional Resources to Eligible Transmission Customers by zone. The  $K^{customer}_{c,L}$  factor allocates to each Eligible Transmission Customer a portion of this zonal BPCG for Additional Resources based on the ratio of each Eligible Transmission Customers' Energy purchases from the Real-Time market in that Load Zone in each hour summed over hours of the day in which these purchases are positive to all Energy purchases by Eligible Transmission Customers in the Real-Time market in that Load Zone in each hour summed over hours of the day in which these purchases are positive.

Any BPCG paid to Additional Resources not allocated pursuant to these scaling factors is allocated as a remainder BPCG pursuant to Section 6.1.7.6 of Rate Schedule 1.

#### **IV. Effective Date**

The NYISO requests an effective date of September 30, 2010 for its proposed Tariff revisions.

#### **V. Requisite Stakeholder Approval**

The NYISO's Management Committee approved the proposals amending the various tariff amendments dealing with Bid Production Cost Guarantees on January 20, 2010 and the NYISO Board of Directors approved them on February 9, 2010. The NYISO's Management Committee approved the proposal to amend the tariff with regard to Late Day Start on April 21, 2010 and May 19, 2010. The NYISO Board of Directors approved all proposed tariff revisions on June 15, 2010.

## **VI. Communications and Correspondence**

All communications and service in this proceeding should be directed to:  
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## **VII. Service**

The NYISO will send an electronic link to this filing to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the electric utility regulatory agency of New Jersey. In addition, the complete filing will be posted on the NYISO's website at [www.nyiso.com](http://www.nyiso.com).

## **VIII. Conclusion**

Wherefore, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept this filing and permit the NYISO's proposed Tariff revisions to become effective on September 30, 2010.

Respectfully submitted,

/s/ Mollie Lampi  
Mollie Lampi

Honorable Kimberly D. Bose  
July 21, 2010  
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