

March 5, 2009

By Hand Delivery

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. ER09-___-___*
Proposed Tariff Revisions to Enhance Operational Control of Wind
Resources, Amend Settlement Rules Applicable to Them and Increase
System Reliability**

Dear Secretary Bose:

In accordance with Section 205 of the Federal Power Act and Part 35 of the Commission's regulations, the New York Independent System Operator, Inc. ("NYISO") respectfully submits proposed revisions to its Market Administration and Control Area Services Tariff ("Services Tariff") and its Open Access Transmission Tariff ("OATT") to enhance the NYISO's operational control of New York wind resources in order to increase the NYISO's ability to reliably and efficiently operate the New York Transmission System. The proposed tariff amendments would allow the NYISO's Real-Time Dispatch ("RTD")¹ market software to direct wind resources to reduce their output when necessary and economically appropriate and would redesign the market settlement rules that apply to wind resources to enforce compliance with these directions. Dispatch-directed output reductions based on the economics of a wind generator's offer enhance market efficiency by avoiding the need for the NYISO to estimate the size and duration of wind output reductions necessary to preserve reliability and by including, in the real-time price, the impact of the economically driven wind output reduction. These proposed tariff amendments have been unanimously approved by the NYISO's Management Committee.

I. Documents Submitted

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

¹ Capitalized terms that are not otherwise defined herein shall have the meaning specified in Article 2 of the NYISO's Services Tariff.

II. Background

Approximately 1200 MWs of Intermittent Power Resources that depend on wind as their fuel ("wind resources") have now interconnected to the NYISO system. While this new generation provides welcome fuel diversity and clean technology, its intermittency also presents challenges to maintaining a reliable and secure transmission system. Wind resources have clustered in certain areas of New York State.² This clustering can lead to transmission system constraints at times of high wind production and low loads or other operational limitations such as equipment outages. At present, the NYISO does not have an efficient process for using wind resources to resolve these constraints.

When faced with more energy than a constrained system can handle, the NYISO RTD software dispatches down flexible resources with the highest offers that can resolve the constraint. Because wind resources are not currently treated as flexible resources, the NYISO's software does not direct them to reduce their output even if such reductions could relieve the constraint. If no dispatchable resources are available to relieve the constraint, the NYISO must manually identify the wind resource(s) which can best relieve it and notify the local Transmission Owner which in turn instructs the wind resource(s) to go off-line.

Wind resources themselves have reduced their output if they notice significantly negative prices at their location. Such a sudden drop in generation, even on a constrained system, however, can present its own challenges to reliability. Both manual NYISO-led instructions to reduce output and self-initiated wind resource reductions in the face of negative prices are inefficient wind management methods that can be improved upon. Both approaches have the potential to take more energy off the system for longer periods of time than may actually be necessary to resolve the constraint.

Thus, the NYISO is proposing to put wind resources on dispatch and enable RTD to include them among those flexible resources for which a dispatch-down instruction would be useful in resolving a constraint on the transmission system. The NYISO proposes to require that wind resources submit economic offers indicating the price at which they desire to reduce their generation. RTD will then identify units and megawatts that, in the face of a constrained system, are economically appropriate for output reduction in order to maintain reliability. The dispatch system will identify only as much output reduction and duration as is necessary to resolve the constraint -- allowing wind resources to continue to generate as much as the system can handle -- a significant improvement over the manually imposed output reduction measures described above.

² See:

https://www.nyiso.com/secure/webdocs/committees/oc_soas/meeting_materials/2009-01-20/Wind_Integration_Study_Plant_Perf_Actual_December_09.pdf

The NYISO is also proposing revised settlement rules, discussed in detail below, in support of this new functionality. These include new rules denying payment for energy injected by wind resources in excess of a dispatch-down real-time schedule and a penalty for over generating when output reductions are necessary to maintain reliability. In the absence of a dispatch-down instruction, wind resources will continue to be paid for all output delivered to the transmission system and exempt from schedule deviation penalties.

III. Tariff Description and Justification

A. Adding Wind to the Flexible Dispatch

The NYISO proposes several amendments to enable it to handle wind resources as dispatchable resources in RTD. First, the NYISO proposes to require that wind resources bid as ISO-Committed Flexible generators, providing the NYISO with an energy offer but no minimum generation or start-up bid. This requires amendments to the Services Tariff's Day-Ahead and real-time bidding requirements. Therefore, the NYISO proposes to amend Section 4.2.2(C)(2) and Section 4.4.2(B)(1), the sections that describe the Day-Ahead and Real-Time Energy bid parameters for Dispatchable Resources, respectively. In both sections, the NYISO proposes to add a requirement that wind resources offer their capacity as ISO-Committed Flexible and that they not bid a Minimum Generation or Start-Up Bid. Since these units desire to maximize their energy operation and settlement, they have no economic need to employ Minimum Generation or Start-Up Bids.

The NYISO also proposes to amend Attachment B of the Services Tariff, and the parallel provisions of Attachment J in the OATT,³ to remove existing references to wind resources as fixed units and to indicate how the RTD will treat them. This proposed treatment will allow these units to be dispatched between zero and the Wind Energy Forecast developed for them by the NYISO.

Specifically, the NYISO proposes to amend Section I.A.1.b of Attachment B of the Services Tariff which describes the first pass of the real-time scheduling process (in which energy schedules are determined). The NYISO proposes dividing this section into four subsections: i) an untitled introduction; ii) Subsection A, "*Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources That Depend on Wind as Their Fuel*"; iii) Subsection B, "*Upper and Lower Dispatch Limits for Intermittent Power Resources that Depend on Wind as Their Fuel*"; and iv) Subsection C, "*Setting Physical Basepoints for Fixed Generators.*"

The untitled introduction consists entirely of the existing introductory language to this Section I.A.1.b. Subsection A contains the existing rules governing the setting of upper and

³ For convenience, all references in this letter to Attachment B to the NYISO Services Tariff should be understood as also encompassing references to the parallel provisions of Attachment J to the NYISO OATT.

lower dispatch limits for flexible units. These rules will continue to apply to all non-wind resources.

Subsection B, *Upper and Lower Dispatch Limits for Intermittent Power Resources That Depend on Wind as Their Fuel*, is proposed to contain new language. The first new provision would direct the NYISO to set the lower dispatch point for wind resources at zero and the upper dispatch point at the Wind Energy Forecast for that facility.⁴ The NYISO also proposes to include a provision in this Subsection B to allow it to set the upper and lower dispatch limits for the two existing wind resources that were in commercial operation by January 1, 2002, with nameplate capacities of 12 MWs or fewer, equal to their Wind Energy Forecast.⁵ This will allow the NYISO to treat these two facilities in the dispatch software as it treats them today.

These are the two oldest and smallest wind resources interconnected to the New York system. To add them to the dispatch software and send dispatch-down instructions would require new communications equipment which, the NYISO understands, would be significantly expensive to install. It may also require on-site personnel not currently necessary at these facilities. The costs of retrofitting their early technology to establish communication links for the purpose of controlling their output or receiving basepoints is not commensurate with the NYISO's need to control such small resources. Should there be an operational need to reduce the output of these two units, the NYISO will contact them through the Transmission Owner and request a reduction in output. Because the capacity of these two facilities is relatively small, the NYISO does not expect this to be an operational burden. Under the circumstances, the NYISO believes that creating an exception for these two facilities should not be deemed to be unduly discriminatory.

The Commission previously approved an exemption from the NYISO's forecasting requirements for these two facilities as a reasonable accommodation for early, small wind turbines that were developed at a time when wind as a central-station generating technology was untested in New York State.⁶ The NYISO submits that a similar accommodation in this instance is also reasonable.

⁴ These dispatch limits apply to all of the time horizons over which the Real-Time Dispatch time evaluates unit dispatch. Each RTD run, depending on when it occurs during the hour, has a bid optimization horizon of fifty, fifty-five, or sixty minutes beyond the first point in time that it addresses. The points in time in each RTD run are arranged so that they parallel as closely as possible the NYISO Real Time Commitment software's fifteen minute evaluations.

⁵ Although these two facilities do not provide wind speed or wind direction for the development of a meteorologically-based Wind Energy Forecast at their location, the NYISO develops a dispatch for them using the first step in its Wind Energy Forecast, *i.e.* persistence. This is, the NYISO dispatches the system with the expectation that these units will continue the output measured for them when that five-minute dispatch began.

⁶ *New York Independent System Operator, Inc.*, 123 FERC ¶ 61,267 (2008).

The NYISO proposes to include in Subsection C, *Setting Physical Basepoints for Fixed Generators*, the balance of the provisions currently contained in Section I.A.1.b(i) of Services Tariff Attachment B. In addition, the NYISO plans to eliminate the existing provision requiring it to treat wind resources as fixed units. To do this, the NYISO proposes to remove the phrase “or, for Intermittent Power resources depending on wind as their fuel, the output level specified by the Wind Energy Forecast, regardless of their actual performance” from the first and third paragraphs of this new Subsection C.

Similarly, the NYISO proposes amending Section I.A.1.b(ii) of Attachment B of the Services Tariff to divide its provisions into two subsections. A new Subsection A, “*Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources That Depend on Wind as Their Fuel,*” contains existing language. A second new Subsection B, “*Upper and Lower Dispatch Limits for Intermittent Power Resources That Depend on Wind as Their Fuel,*” contains the same language the NYISO is proposing for Subsection B in the first pass (*i.e.*, Section I.A.1.b(i)).

The NYISO proposes to implement these revisions to Services Tariff Attachment B as of the proposed effective date, May 12, 2009, even though communications equipment for receipt of Real-Time instructions will not yet be available for most wind resources as of that date (as discussed above). A May implementation date for changes to the NYISO’s RTD can provide significant benefits before communications systems are installed at wind resource sites without adverse impacts.

Applying this dispatch enhancement even before communications equipment is installed will allow the NYISO’s market software to identify, for internal NYISO staff, the units, megawatts, and appropriate time periods for any dispatch-down instructions that may be necessary to resolve constraints in the system. Until the communication systems are installed, these dispatch-down instructions can be manually delivered, as necessary, by the NYISO operators to the wind resource, via the Transmission Owner. Instructions developed by RTD will significantly improve the efficiency of manually delivered instructions by allowing the NYISO operators to reduce no more output than is necessary, and for a period no longer than necessary, to manage the system reliably.

B. Amending Settlement Rules for Wind Resources

1. Wind Output Limit

The NYISO proposes to make wind resources that have received a dispatch-down instruction subject to the same energy settlement rules that currently apply to non-wind resources generating above their real-time schedules. As a general matter, the NYISO does not pay for energy injected into the system in excess of a generator’s Real-Time schedule or basepoint (plus a tolerance)⁷ and the NYISO intends to apply this rule to wind resources that have been directed to reduce their output. The NYISO will pay real-time energy prices for all delivered energy up

⁷ See: Services Tariff Section 4.5 (F)

to the resource's real-time basepoint (when such basepoint directs a reduction in output) plus a tolerance which is currently 3% of the resource's upper operating limit, provided that such delivered energy had not been scheduled Day-ahead. No changes to settlement rules are proposed for energy injected into the system by wind resources during intervals in which they have not been sent a dispatch-down instruction.

To implement this proposed new rule, the NYISO proposes to introduce a new term, "Wind Output Limit." The NYISO proposes to add a new Section 2.198a, defining the term "Wind Output Limit" as:

A real-time Dispatch Base Point Signal calculated for an Intermittent Power Resource depending on wind and which, when sent to the Intermittent Power Resource shall include a separate flag indicating that the Base Point Signal directs the Resource to reduce its output. All Intermittent Power Resources, other than those in commercial operation as of January 1, 2002 with name plate capacity of 12 MWs or fewer, shall be eligible to receive a Wind Output Limit.

Although the NYISO will provide real-time schedules to wind resources for every interval that they are scheduled, only those that are accompanied by a separate flag indicating that the Base Point Signal directs the Resource to reduce its output will be a Wind Output Limit. Only these real-time schedules will indicate that the wind resource's real-time settlement will be impacted if they are not followed.

2. Compensable Overgeneration

The NYISO also proposes several amendments to Services Tariff Section 2.23a, the definition of "Compensable Overgeneration." Compensable Overgeneration is energy output that exceeds a Supplier's real-time schedule and for which the Supplier is entitled to compensation. The NYISO proposes to define Compensable Overgeneration for wind resources in intervals in which the NYISO has provided a Wind Output Limit as it defines the term for non-wind Suppliers. That is, Compensable Overgeneration will be limited to actual generation that equals the wind resource's real-time schedule or basepoint plus a tolerance. Further, for all but one unit, the NYISO proposes to limit the application of this new settlement rule to the period beginning November 1, 2009.

The NYISO is proposing to delay the application of this new settlement rule to allow Transmission Owners and wind resources the time to install the communication systems that will allow Transmission Owners to relay Base Point Signals (originally sent by the NYISO to the Transmission Owner) to the appropriate wind resources. The NYISO does not believe it would be appropriate to limit compensation for over generation in intervals that the wind resource has been instructed to reduce its output if the wind resource is not equipped to receive those instructions.⁸ For all but one wind resource, the NYISO understands that the eight-month period

⁸ The nature of the software adjustments being proposed require the NYISO to impose new settlement rules on all wind resources or none; incrementally exposing wind resources to

between now and November 1, 2009 will be sufficient for wind resources to work with local Transmission Owners to install the communications equipment necessary to receive Real-Time schedules as basepoints.⁹

The NYISO proposes to delay the implementation of these settlement rules to February 1, 2010 for a single, relatively small (fewer than 30 MW) wind resource that was installed prior to 2006, as the NYISO understands the installation requirements for this older facility are more complicated. Due to the age of this resource, it needs to install more underlying infrastructure before the communication links can be established. This extension was requested by the relevant Transmission Owner and met with no objections from market participants. Under the circumstances, the NYISO believes that creating an exception for this one facility should not be deemed to be unduly discriminatory.

The NYISO proposes to apply the rules described in the second paragraph of Section 2.23a, which indicate that Compensable Overgeneration includes all energy injected in an interval in excess of the real-time schedule, to wind resources for those intervals in which the NYISO has not applied a Wind Output Limit.

The NYISO also proposes moving a comma in the second paragraph of Section 2.23a to clarify that the definition of Compensable Overgeneration described in the second paragraph applies to all Intermittent Power Resources depending on wind as their fuel, and to Limited Control Run of River Hydro Resources that have not bid in a manner that indicate they are available to provide Regulation Service or Operating Reserves. With the changes being proposed here, the NYISO will be requiring Intermittent Power Resources depending on wind as their fuel to bid as flexible resources, a status that would normally allow them to offer Reserves or Regulation Service. Although these units will be on dispatch, the NYISO will flag them as physically not available to provide Regulation Service or Operating Reserves and use their flexible bid type only for dispatch purposes based on their energy offer. Notwithstanding this new bidding regime, they should still be eligible to be paid for all their output in those intervals in which the NYISO has not applied a Wind Output Limit. This small change will ensure that result.

4. Overgeneration Penalties

The NYISO proposes to add a new section 1.01 to Rate Schedule 3 of the Services Tariff entitled "Overgeneration Charges." Modeled on the existing provision that assesses Persistent Undergeneration Charges on traditional generators whose output does not equal their Real-Time

new settlement rules as they get their communication equipment installed is not an available option.

⁹ When these resources were interconnected to the NYISO transmission system, their settlements did not depend on receiving basepoints and the necessary systems to support basepoint communications were not installed.

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schedule,¹⁰ this amendment would direct the NYISO to impose a charge when a wind resource has not followed its dispatch-down instruction. For the same reasons that the NYISO proposed to limit the application of proposed amendments to Services Tariff Section 2.23a, discussed in Section III.B.2, *infra*, the NYISO proposes to limit the application of the charges authorized by this Section, for all but one wind resource, to the period beginning November 1, 2009. For that one wind resource the NYISO proposes to delay imposition of this new charge to the period starting February 1, 2010.

Pursuant to the provisions of this new Section 1.01, the NYISO proposes to impose, in any interval in which a wind resource operates at a level above its Wind Output Limit, a charge equal to the product of the market clearing price for Regulation Service in that interval and the wind resource's Energy Difference. The NYISO proposes to calculate the Energy Difference by subtracting the wind resource's real-time schedule from the actual Energy it provided. The Energy Difference will be set to zero if the difference is negative or falls within a tolerance set at 3% of the wind resource's Upper Operating Limit.¹¹

The settlement rule described in Section III.B.2, above, *i.e.* declining to pay for energy in excess of a real-time schedule, may have little deterrent effect on wind resources since they experience no fuel cost if they continue operating at their unreduced level. Without a charge imposed on wind resources that fail to reduce their output, the NYISO is concerned that a wind resource may ride through the dispatch-down instruction to avoid having to take mechanical actions at its facilities. The size of the NYISO's proposed charge is reasonable because it is based on the costs that wind resource overgeneration imposes on the market. The NYISO uses Regulation Service units to manage the frequency issues created when other units operate off their basepoints. Charging wind resources the Regulation Service market clearing price for output that dispatched-down wind resources produce in excess of their schedule is a reasonable, market-based charge.

5. Day-Ahead Margin Assurance Payments

Finally the NYISO proposes an amendment to Services Tariff, Attachment J, which describes eligibility for, and the calculation of the Day-Ahead Margin Assurance Payments ("DAMAP"). DAMAP, as a general matter, is available to a Supplier whose Day-Ahead schedule is reduced by the NYISO to maintain security and reliability. It ensures that the Supplier's real-time balancing obligation, imposed for those intervals in which the NYISO has required a reduced output, does not strip the Supplier of margins it may have earned in those intervals Day-Ahead. Although wind resources may be scheduled Day-Ahead and may be

¹⁰ Services Tariff Rate Schedule 3-A.

¹¹ The Commission has previously found the NYISO's use of other market-based imbalance charges to be consistent with or superior to the *pro forma* OATT imbalance charges adopted in Order No. 890. *See New York Independent System Operator, Inc.*, 123 FERC P 61,134 (2008). The proposed new Section 1.01, which has been endorsed by the NYISO's stakeholders, is similarly consistent with or superior to the Order No. 890 model.

required by the NYISO to reduce their output, as described above, to maintain a reliable system, there is no assurance they would have produced enough Energy to actually satisfy their Day-Ahead schedule in the absence of the dispatch-down instruction. Balancing obligations imposed on a wind resource which cannot fulfill its Day-Ahead schedule because the wind did not show up should not be protected with a DAMAP.

There is no way to determine whether, but for the NYISO-imposed directive to reduce output, the wind facility may have actually met its Day-Ahead schedule. Therefore, the NYISO proposes not to provide a DAMAP in cases where the NYISO reduces the Real-Time schedule of a wind resource below its Day-Ahead schedule.

IV. Effective Date

The NYISO requests an effective date for these tariff amendments of May 12, 2009, the date that it expects the software changes needed to implement the proposed revisions will be in effect.

V. Requisite Stakeholder Approval

These amendments were approved by the NYISO Management Committee on January 27, 2009.

VI. Communications and Correspondence

All communications and service in this proceeding should be directed to:

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VII. Service

The NYISO will electronically send a 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 agencies of New Jersey and Pennsylvania. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com. The NYISO will also make a paper copy available to any interested party that requests one. To the extent necessary, the NYISO requests waiver of the requirements of

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Section 35.2(d) of the Commission's Regulations (18 C.F.R. § 35.2(d) (2007)) to permit it to provide service in this manner.

VIII. Conclusion

Wherefore, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept for filing the proposed tariff revisions that are attached hereto with an effective date of May 12, 2009.

Respectfully submitted,



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ATTACHMENT I

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 run at its specified response rate.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources 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 Resource's lower and upper dispatch limits. A 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 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 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 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.

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

For the first time point and later time points for Intermittent Power Resources, 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 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.

(ii) The Second Pass

The second Real-Time Dispatch 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 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 UOLN or UOLE, 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 UOLN or UOLE, 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, as well as for Dispatchable Generators scheduled to provide Regulation Service, shall be the same as the physical base points calculated in the first pass.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources That Depend on Wind as Their Fuel

The upper dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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 immediately prior to the previous Real-Time Dispatch minus the Resource’s metered output level at the time that the current Real-Time Dispatch run was initialized, or (ii) zero.

The lower dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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 run was initialized minus the physical base point established during the first pass of the Real-Time Dispatch immediately prior to the previous Real-Time Dispatch; or (ii) zero.

The upper dispatch limit for the later time points of the second pass for a Dispatchable Resource that was not scheduled to provide Regulation Service in the first pass 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 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 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

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2.22 Code of Conduct

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

2.23 Commission (“FERC”)

The Federal Energy Regulatory Commission, or any successor agency.

2.23a Compensable Overgeneration

A quantity of Energy injected over a given RTD interval: i) by a Supplier; or ii) by an Intermittent Power Resource depending on wind as its fuel for which the ISO has imposed a Wind Output Limit after October 31, 2009 in the given RTD interval, that exceeds the Real-Time Scheduled Energy Injection established by the ISO for that Supplier and for which the Supplier may be paid pursuant to ISO Procedures, provided that the excess Energy injection does not exceed the Supplier’s Real-Time Scheduled Energy Injection over that interval, plus a tolerance. The tolerance shall initially be set at 3% of a given Supplier’s Normal Upper Operating Limit and may be modified by the ISO if necessary to maintain good Control Performance.

For Generators operating in Start-Up or Shutdown Periods, or Testing Periods, and for Intermittent Power Resources not described in subsection 2.23a(ii) that depend on wind as their fuel and Limited Control Run of River Hydro Resources, not bidding in a manner that indicates they are available to provide Regulation Service or Operating Reserves, that were in operation on or before November 18, 1999 within the NYCA, plus an additional 3,300 MW of such

Issued by: Stephen G. Whitley, President
Issued on: March 5, 2009

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Resources. Compensable Overgeneration shall mean that quantity of Energy injected by a Generator, over a given RTD interval, that exceeds the Real-Time Scheduled Energy Injection established by the ISO for

2.195 Wheels Through

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

2.196 Wholesale Market

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

2.197 Wholesale Transmission Services Charges (“WTSC”)

Those charges calculated pursuant to Attachment H of the OATT, incurred or declared overdue by a Transmission Owner pursuant to Section VII.B of Attachment K, after the effective date of these revisions; provided, however, that these provisions will not apply to pre-petition bankruptcy debts for a company that is currently in bankruptcy.

2.198 Wind Energy Forecast

The ISO’s forecast of Energy that is expected to be supplied over a specified interval of time by an Intermittent Power Resource that depends on wind as its fuel and which is used in ISO’s Energy market commitment and dispatch.

2.198a Wind Output Limit

A Base Point Signal calculated for an Intermittent Power Resource depending on wind as its fuel and which, when sent to the Intermittent Power Resource, shall include a separate flag

indicating that the Base Point Signal directs the Intermittent Power Resource to reduce its output.

All Intermittent Power Resources, other than those in commercial operation as of January 1, 2002 with name plate capacity of 12 MWs or fewer, shall be eligible to receive a Wind Output Limit.

2.199 WTSC Component

A component of the Operating Requirement, calculated in accordance with Section III.B, of Attachment K to this Services Tariff.

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

First Revised Sheet Nos. 76 through 80
Superseding Original Sheet Nos. 75 through 80

Sheet Nos. 76 through 80 are reserved for future use.

Issued by: Stephen G. Whitley, President
Issued on: March 5, 2009

Effective: May 12, 2009

If the Supplier is ISO-Committed Flexible or Self-Committed Flexible, and is eligible to provide Regulation Service or Operating Reserves under Rate Schedules 3 and 4 respectively of this ISO Services Tariff, the Supplier's Bid shall specify the quantity of Regulation Service it is making available and an emergency response rate that determines the quantity of Operating Reserves that it is capable of providing. Offers to provide Regulation Service and Operating Reserves must comply with the rules set forth in Rate Schedules 3 and 4 and Attachment D to this ISO Services Tariff. If a Supplier that is eligible to provide Operating Reserves does not submit a Day-Ahead Availability Bid for Operating Reserves, its Day-Ahead Bid shall be rejected in its entirety. A Supplier may resubmit a complete Day-Ahead Bid, provided that the new Bid is timely.

2. Bid Parameters

Day-Ahead Bids by Dispatchable or ISO-Committed Fixed Suppliers, may identify variable Energy price Bids, consisting of up to eleven monotonically increasing, constant cost incremental Energy steps, and other parameters described in Attachment D of this ISO Services Tariff and the ISO Procedures. Day-Ahead Bids from Demand Side Resources offering Operating Reserves or Regulation Service shall be ISO-Committed Flexible and shall have an Energy Bid price no lower than \$75/MW hour. Day-Ahead offers by Intermittent Power Resources that depend on wind as their fuel shall be ISO-Committed Flexible and shall not include a Minimum Generation Bid or a Start-Up Bid.

4.4.2 Real-Time Commitment (“RTC”)

A. Overview

RTC will make binding unit commitment and de-commitment decisions for the periods beginning fifteen minutes (in the case of Resources that can respond in ten minutes) and thirty minutes (in the case of Resources that can respond in thirty minutes) after the scheduled posting time of each RTC run, will provide advisory commitment information for the remainder of the two and a half hour optimization period, and will produce binding schedules for External Transactions to begin at the start of each hour. RTC will co-optimize to solve simultaneously for all Load, Operating Reserves and Regulation Service requirements and to minimize the total as-bid production costs over its optimization timeframe. RTC will consider SCUC’s Resource commitment for the day, load and loss forecasts that RTC itself will produce each quarter hour, binding transmission constraints, and all Real-Time Bids and Bid parameters submitted pursuant to Section 4.4.2.B below.

B. Bids and Other Requests

After the Day-Ahead schedule is published and no later than seventy-five (75) minutes before each hour, or no later than eighty-five minutes before each hour for bids to schedule External Transactions at the Proxy Generator Bus associated with the Cross-Sound Scheduled Line or the Neptune Scheduled Line, Customers may submit Real-Time Bids into RTC for real-time evaluation.

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

Intermittent Power Resources that depend on wind as their fuel submitting new or revised offers to supply Energy shall bid as ISO-Committed Flexible and shall not include a Minimum Generation Bid or a Start-Up Bid. Eligible Customers may submit new or revised Bids to supply Energy, Operating Reserves and/or Regulation Service. Customers that submit such Bids may specify different Bid parameters in RTC than they did Day-Ahead. ISO-Committed Fixed Generators, ISO-Committed Flexible Generators and Demand Side Resources, and Self-Committed Flexible Generators may not increase their Day-Ahead Incremental Energy Bids that are applicable to any portion of their Capacity that was scheduled Day-Ahead, and may not increase their Minimum Generation Bids, or Start-Up Bids, for any hour in which they received a Day-Ahead Energy schedule. Bids to supply Energy or Ancillary Services shall be subject to the rules set forth in Section 4.2.2 above and in Attachment D to this ISO Services Tariff.

Generators that did not submit a Day-Ahead Bid for a given hour may offer to be ISO-Committed Flexible, Self-Committed Flexible, Self-Committed Fixed or, with ISO approval, as ISO-Committed Fixed in real-time. Demand Side Resources that did not submit a Day-Ahead Bid to provide Operating Reserves or Regulation Service for a given hour or that submitted a Day-Ahead Bid to provide Operating Reserves or Regulation Service but did not receive a Day-Ahead schedule for a given hour may offer to provide Operating Reserves or Regulation Service as ISO-Committed Flexible for that hour in the Real-Time Market provided, however, that the

Demand Side Resource shall have an Energy price Bid no lower than \$75 /MW hour.

Generators that submitted a Day-Ahead Bid but did not receive a Day-Ahead schedule for a given hour may change their bidding mode for that hour to be ISO-Committed Flexible, Self-Committed Flexible, Self-Committed Fixed or, with ISO approval, ISO-Committed Fixed in real-time without restriction.

Generators that received a Day-Ahead schedule for a given hour may not change their bidding mode between Day-Ahead and real-time provided, however, that Generators that were scheduled Day-Ahead in Self-Committed Fixed mode may switch, with ISO approval, to ISO-Committed Fixed bidding mode in real-time. Generators that were scheduled Day-Ahead in ISO-Committed Fixed mode will be scheduled as Self-Committed Fixed in the Real-Time Market unless, with ISO approval, they change their bidding mode to ISO-Committed Fixed.

A Generator with a real time physical operating problem that makes it impossible for it to operate in the bidding mode in which it was scheduled Day-Ahead should notify the NYISO.

component. The steady-state component shall initially be 3% of the Supplier's Normal Upper Operating Limit or Emergency Upper Operating Limit, as applicable, and the dynamic component shall be a time constant that shall initially be set at fifteen minutes; and

MCP_{reg} is the market clearing price (\$/MW) which applies to the dispatch interval for which Regulation Service in the Real-Time Market, or, if applicable, the Day-Ahead Market.

1.01 Overgeneration Charges

An Intermittent Power Resource that depends on wind as its fuel, for which the ISO has imposed a Wind Output Limit after October 31, 2009 or after February 1, 2010 for an Intermittent Power Resource that depends on wind as its fuel in commercial operation before 2006 with nameplate capacity of 30 MWs or less, that operates at a level above its schedule shall pay an overgeneration charge to the ISO, unless its operation is within a tolerance described below.

Overgeneration charges per interval shall be calculated as follows:

Overgeneration charge = Energy Difference x MCP_{reg} x Length of Interval/60 Minutes

Where:

Energy Difference in (MW) is determined by subtracting the RTD Base Point Signal for the dispatch interval from the actual Energy provided by the Intermittent Power Resource for the same interval. The Energy Difference shall be set at zero for any Energy Difference that is otherwise negative or that falls within a tolerance, set pursuant to ISO Procedures, which shall

initially be set at 3% of the Supplier's Normal Upper Operating Limit or Emergency Upper Operating Limit, as applicable; and

MCP_{reg} is the market clearing price (\$/MW) which applies to the dispatch interval for Regulation Service in the Real-Time Market, or, if applicable, the Day-Ahead Market.

2.0 Restoration of Performance Charges

The persistent undergeneration charges described in Section 1.0 above shall be suspended in the event that the ISO re-institutes Regulation performance charges pursuant to Section 8.0 of Rate Schedule 3 of this Services Tariff. If the ISO re-institutes performance charges then Suppliers that sell Energy through the LBMP Markets or that supply Bilateral Transactions that serve Load in the NYCA, but do not provide Regulation Service, shall pay a performance charge per interval to the ISO as follows:

$$\text{Performance Charge} = \text{Energy Difference} \times MCP_{reg} \times \text{Length of SCD Interval} / 60 \text{ minutes}$$

Where:

Energy Difference (in MW) is the absolute difference between the actual Energy supplied by the Supplier and the Energy is directed to produce by its RTD Base Point Signals, whether positive or negative, averaged over each RTD interval; and

MCP_{reg} is the market clearing price (\$/MW) which

Service and Operating Reserves for the first time point of the 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 run at its specified response rate.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources 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 Resource's lower and upper dispatch limits. A 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 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 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 Resource to reach that base point, then its upper and lower dispatch limits shall reflect the

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

For the first time point and later time points for Intermittent Power Resources, 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.

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.

(ii) The Second Pass

The second Real-Time Dispatch 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, as well as for Dispatchable Generators scheduled to provide Regulation Service, shall be the same as the physical base points calculated in the first pass.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources That Depend on Wind as Their Fuel

The upper dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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 immediately prior to the previous Real-Time Dispatch minus the Resource’s metered output level at the time that the current Real-Time Dispatch run was initialized, or (ii) zero.

The lower dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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

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 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 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.A.1.a and 1.b shall apply.

ATTACHMENT J

DETERMINATION OF DAY-AHEAD MARGIN ASSURANCE PAYMENTS

1.0 General Rule

If an eligible Supplier buys out of a Day-Ahead Energy, Regulation Service or Operating Reserve schedule in a manner that reduces its Day-Ahead Margin it shall receive a Day-Ahead Margin Assurance Payment, except as noted in Sections 4.0, and 5.0 of this Attachment J. The purpose of such payments is to protect Suppliers' Day-Ahead Margins associated with real-time reductions after accounting for: (i) any real-time profits associated with offsetting increases in real-time Energy, Regulation Service, or Operating Reserve Schedules; and (ii) any Supplier-requested real-time de-rate granted by the ISO.

2.0 Eligibility for Receiving Day-Ahead Margin Assurance Payments

The following categories of Suppliers shall be eligible to receive Day-Ahead Margin Assurance Payments provided however, that Intermittent Power Resources depending on wind as their fuel shall not be eligible for Day-Ahead Margin Assurance Payments: (i) all Self-Committed Flexible and ISO-Committed Flexible Generators that are online and dispatched by RTD; (ii) Demand Side Resources committed to provide Operating Reserves or Regulation Service; (iii) any Supplier that is scheduled out of economic merit order by the ISO in response to an ISO or Transmission Owner system security need or to permit the ISO to procure additional Operating Reserves; (iv) any Supplier that is derated or decommitted by the ISO in response to

an ISO or Transmission Owner system security need or to permit the ISO to procure additional Operating Reserves; and (v) Energy Limited Resources with a total margin for the dispatch day that is less than its Day-Ahead margin as a result of an ISO-approved real-time reduction in scheduled output from its Day-Ahead schedule for Energy limited reasons.

No Day-Ahead Margin Assurance Payment shall be paid a Generator, otherwise eligible for a Day-Ahead Margin Assurance Payment, in hours in which the NYISO has increased the Generator's minimum operating level, either: (i) at the Generator's request; or (ii) in order to reconcile the ISO's dispatch with the Generator's actual output or to address reliability concerns that arise because the Generator is not following Base Point Signals.

ATTACHMENT II

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 run at its specified response rate.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources 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 Resource's lower and upper dispatch limits. A 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 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 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 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.

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

For the first time point and later time points for Intermittent Power Resources, 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 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 ~~or, for Intermittent Power Resources (as defined in the ISO Services Tariff) depending on wind as their fuel, the output level specified by the Wind Energy Forecast, regardless of their actual performance.~~ 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.

(ii) **The Second Pass**

The second Real-Time Dispatch 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 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 UOLN or UOLE, 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 UOLN or UOLE, 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, as well as for Dispatchable Generators scheduled to provide Regulation Service, shall be the same as the physical base points calculated in the first pass.

A. Upper and Lower Dispatch Limits for Dispatchable Resources Other Than Intermittent Power Resources That Depend on Wind as Their Fuel

The upper dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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 immediately prior to the previous Real-Time Dispatch minus the Resource’s metered output level at the time that the current Real-Time Dispatch run was initialized, or (ii) zero.

The lower dispatch limit for the first time point of the second pass for a Dispatchable Resource not scheduled to provide Regulation Service 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 run was initialized minus the physical base point established during the first pass of the Real-Time Dispatch immediately prior to the previous Real-Time Dispatch; or (ii) zero.

The upper dispatch limit for the later time points of the second pass for a Dispatchable Resource that was not scheduled to provide Regulation Service in the first pass 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 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 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 and 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

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2.22 Code of Conduct

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

2.23 Commission ("FERC")

The Federal Energy Regulatory Commission, or any successor agency.

2.23a Compensable Overgeneration

A quantity of Energy injected over a given RTD interval: i) by a Supplier; ~~over a given RTD interval, or ii) by an Intermittent Power Resource depending on wind as its fuel for which the ISO has imposed a Wind Output Limit after October 31, 2009 in the given RTD interval.~~ that exceeds the Real-Time Scheduled Energy Injection established by the ISO for that Supplier and for which the Supplier may be paid pursuant to ISO Procedures, provided that the excess Energy injection does not exceed the Supplier's Real-Time Scheduled Energy Injection over that interval, plus a tolerance. The tolerance shall initially be set at 3% of a given Supplier's Normal Upper Operating Limit and may be modified by the ISO if necessary to maintain good Control Performance.

For Generators operating in Start-Up or Shutdown Periods, or Testing Periods, and for Intermittent Power Resources not described in subsection 2.23a(ii) that depend on wind as their fuel and Limited Control Run of River Hydro Resources, not bidding in a manner that indicates they are available to provide Regulation Service or Operating Reserves, that were in operation on or before November 18, 1999 within the NYCA, plus an additional 3,300 MW of such