

Attachment III

5.12 Requirements Applicable to Installed Capacity Suppliers

5.12.1 Installed Capacity Supplier Qualification Requirements

In order to qualify as an Installed Capacity Supplier in the NYCA, Energy Limited Resources, Generators, Installed Capacity Marketers, Interruptible Load Resources or System Resources rated 1 MW or greater, other than entities purchasing Installed Capacity from External System Resources located in External Control Areas that have agreed to certain curtailment conditions (see below), and other than Special Case Resources which are subject to the information requirements of Section 5.12.8 of this Tariff, must: (i) provide information reasonably requested by the ISO including the name and location of Generators and Interruptible Load Resources; (ii) provide documentation to the ISO, of DMNC testing for the previous like Capability Period, or historical production data for the previous like Capability Period, no more than twelve (12) months old, except in the case of new Generators, or, in the case of Interruptible Load Resources, documentation of sustained disconnection for one (1) hour or longer that is no more than one (1) year old, in accordance with ISO Procedures; (iii) abide by the ISO Generator maintenance coordination procedures; (iv) provide the expected return date from any outages (including partial outages) to the ISO; (v) provide documentation demonstrating that it will not utilize the same Installed Capacity for more than one (1) buyer at the same time; (vi) if the resource is an Energy Limited Resource, Generator or System Resource it must commit that it will either schedule it in Day-Ahead Bilateral Transactions to supply Load within the NYCA or bid it into the Day-Ahead Energy Market, unless the Energy Limited Resource, Generator or System Resource is unable to do so due to a maintenance or forced outage or due to temperature related de-ratings; (vii) if the resource is an Interruptible Load Resource, it must commit that it will bid, at the price at which it is willing to be interrupted, in the Day-Ahead Market, for both Energy and Operating Reserves; (viii) abide by ISO Procedures; and (ix) ~~Providers of~~ **prior to May 1, 2001**, Installed Capacity ~~to the NYCA~~ **Suppliers** located east of the ~~Central-East~~ **central-east** constraint shall bid in the Day-Ahead and Real-Time Markets all capacity available for ~~providing~~ **supplying** 10-Minute NSR (unless the Generator is unable to meet its commitment because of a scheduled or forced outage), except for the generators described in subsections (a), (b), (c) and (d) below:

- (a) Generators providing Energy under existing contracts (including PURPA contracts) in which the power purchasers does not control the operation of the supply source but would be responsible for penalties for being off-schedule, with the exception of Generators under existing must-take PURPA contracts who have not provided telemetering to their local TO and historically have not been eligible to participate in the NYPP market, which will continue to be treated as TO load modifiers under the ISO-administered markets;
- (b) Existing topping turbine Generators and extraction turbine Generators producing electric Energy resulting from the supply of steam to the district steam system located in New York City (LBMP Zone J) and/or topping or extraction turbine Generators utilized in replacing or repowering existing steam supplies from such units (in accordance with good engineering and economic design) that cannot follow schedules, up to a maximum total of 365 MW of such units; ~~and~~
- (c) Existing intermittent (i.e., non-schedulable) renewable resource Generators within the NYCA, plus up to an additional 50 MW of such Generators; **and**
- (d) Units that have demonstrated to the NYISO that they are subject to environmental, contractual or other legal or physical requirements that would otherwise preclude them from providing 10-Minute NSR.

The ISO shall inform each potential Installed Capacity Supplier that is required to submit DMNC data of its approved DMNC ratings for the Summer Capability Period no later than February 15th, and for the Winter Capability Period no later than August 15th.

In the case of entities purchasing Installed Capacity from External System Resources located in External Control Areas that have agreed not to curtail the Installed Capacity or to afford it the same curtailment priority that they afford their own Control Area Load, the information submission requirements for certification as an Installed Capacity Supplier shall be established in the ISO Procedures.

----- COMPARISON OF FOOTERS -----

-FOOTER 1-

-FOOTER 2-

(continued . . .)

-FOOTER 3-

(continued . . .)

Issued by: William J. Museler, President Effective: ~~October 23~~ November 1, 2000

Issued on: ~~August 22~~, September 8, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

----- REVISION LIST -----

The bracketed numbers refer to the Page and Paragraph for the start of the paragraph in both the old and the new documents.

- [1:1 1:1] Changed "Second " to "Third "
- [1:2 1:2] Changed "First " to "Second "
- [1:5 1:5] Changed "Providers of " to "prior to May 1, 2001, "
- [1:5 1:5] Changed "to the NYCA " to "Suppliers "
- [1:5 1:5] Changed "Central-East " to "central-east "
- [1:5 1:5] Changed "providing " to "supplying "
- [1:5 1:5] Changed "Original " to "First Revised "
- [2:1 2:1] Changed "2" to "2 Superseding ... Sheet No. 79A"
- [2:3 2:3] Changed "units; and
(c)" to "units;"
- [2:4 2:4] Changed "Generators." to "Generators; and"

----- NOTE CHANGES -----

- [3 3] Changed "October 23" to "November 1"
- [3 3] Changed "August 22, " to "September 8, "
- [3 3] Add Foot "Filed to comply ... issued May 31, 2000."

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -

original document :

\\DCTEAM2\DCPU\DOCSOPEN\WASHINGT\08518\55430\000005\3_DN01!.DOC

and revised document: I:\DOCSOPEN\WASHINGT\08518\55430\000005\3_DN02!.DOC

CompareRite found 10 change(s) in the text

CompareRite found 3 change(s) in the notes

Deletions appear as Overstrike text

Additions appear as Bold+Dbf Underline text

Rate Schedule 4

Payments for Supplying Operating Reserves

This Rate Schedule applies to payments to Suppliers who provide Operating Reserves to the ISO. Transmission Customers will purchase Operating Reserves from the ISO under the ISO OATT.

The ISO shall provide procedures to establish adequate Operating Reserves that comply with the Reliability Rules. Operating Reserves are classified as follows:

- (1) Spinning Reserve: Operating Reserves provided by generation facilities and Interruptible Load Resources located within the NYCA that are already synchronized to the NYS Power System and can respond to instructions to change output level within ten (10) minutes;
- (2) 10-Minute Non-Synchronized Reserve ("10-Minute NSR"): Operating Reserves provided by generation facilities that can be started, synchronized and loaded within ten (10) minutes; and
- (3) 30-Minute Reserve: Operating Reserves provided by generation facilities and Interruptible Load Resources that can respond to instructions to change output or consumption level within thirty (30) minutes.

The ISO shall satisfy at least fifty (50) percent of the applicable 10-Minute Reserve requirements with Spinning Reserve. If the ISO satisfies all of the 10-Minute Reserve

requirement through Spinning Reserve, it does not have to maintain 10-Minute NSR. The ISO shall establish additional categories of Operating Reserves if necessary to ensure reliability.

Procedure for Setting Prices for Reserves

The ISO's software design substitutes higher quality reserves in place of lower quality reserves, when doing so lowers the total bid cost, *i.e.*, when the marginal bid for the higher quality reserve is lower than the marginal bid for the lower quality reserve. To the extent, however, that reliability standards require the use of higher quality reserves, substitution cannot be made in the opposite direction. In addition, if the total requirements for operating reserves are such that the marginal unit of operating reserves is a unit of higher priced lower quality reserves (*e.g.*, 10-Minute NSR as compared to 10-Minute spinning reserves), then the market-clearing price for operating reserves will be set by the higher priced lower quality reserves.

Accordingly, the price of higher quality reserves will not clear at a price below the price of lower quality reserves. For example, the clearing price of 10-Minute spinning reserves will not be below the clearing price for 10-Minute NSR and the clearing price for 10-Minute NSR will not be below the clearing price for 30-Minute Reserves.

1.0 General Requirements

The ISO shall ensure that providers of Operating Reserves are properly located electrically so that transmission constraints resulting from either commitment or dispatch of units do not limit the ability to deliver Energy to Loads in the case of a Contingency. The ISO will ensure that Capacity counted toward meeting Operating Reserve requirements is not also counted toward meeting Regulation and Frequency Response Service requirements.

2.0 Spinning Reserve-Requirements and Responsibilities

2.1 Day-Ahead Market for Spinning Reserve

Suppliers offering Generator or Demand Side Resources to provide Spinning Reserve in the Day-Ahead commitment shall submit Availability Bids for each hour of the upcoming day. The ISO shall select Spinning Reserve Suppliers for each hour of the upcoming day through its Day-Ahead commitment, using Bids and/or schedules provided by the Suppliers, including Availability Bids by both Class A Unit and Class B Unit Suppliers, and Energy Bids by Class A Unit Suppliers. The ISO shall notify each Supplier of Spinning Reserve that has been selected in the Day-Ahead Schedule of the amount of Spinning Reserve it has been scheduled to provide. Suppliers of Spinning Reserve scheduled Day-Ahead shall either

provide Spinning Reserve or shall generate Energy when requested by the ISO to do so, in all hours for which they have been selected to provide Spinning Reserve.

2.2 Real-Time Market for Spinning Reserve

During each Dispatch Day, Suppliers whose Generators have not been scheduled to provide Spinning Reserve and which still have Capacity that has not been committed for use in any other way may submit Availability Bids to provide Spinning Reserve to the ISO.

These ~~Real-Time~~ **real-time** Availability Bids may differ from Availability Bids that were made by those Suppliers in the Day-Ahead commitment. If the ISO anticipates that it will require additional Spinning Reserves in an hour, it shall select additional Suppliers of Spinning Reserve from among those Suppliers that have submitted Real-Time Availability Bids to it for that hour. It shall make this selection with the objective of minimizing the cost of meeting Load and providing all necessary Ancillary Services in that hour. The ISO shall notify each Supplier of Spinning Reserve that has been selected in the Real-Time dispatch of the amount of Spinning Reserve it must provide. Any previously uncommitted Class A Unit whose Bid to provide Spinning Reserve is accepted by the ISO will be treated as a Generator on dispatch.

2.3 Suppliers' Responsibilities

All Generators selected by the ISO as Suppliers of Spinning Reserve must be located within the NYCA and must be under ISO Operational Control. All Suppliers of Spinning Reserves selected by the ISO shall ensure that their Generators maintain and deliver the

New York Independent System Operator, Inc.
FERC Electric Tariff No. 2
139A
Sched. 4

Original **First Revised** Sheet No. 139A
Superseding Original Sheet No.

~~appropriate quantity of Energy when called upon by the ISO in all hours in which they have been selected to provide Spinning Reserve. All Demand Side Resources selected by the ISO as Suppliers of Spinning Reserve shall reduce consumption of the appropriate quantity of Energy when~~
called upon by the ISO in all hours in which they have been selected to provide Spinning Reserve. Each Generator bidding to supply Spinning Reserve must be able to provide Energy consistent with the Reliability Rules and the ISO Procedures when called upon by the ISO and shall specify in its Bid the amount of time for which it can supply such Energy.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

Each Demand Side Resource bidding to supply Spinning Reserve must be able to New York Independent System Operator, Inc. Original **First Revised** Sheet No. 140

FERC Electric Tariff No. 2

Superseding Original Sheet No.

140

Sched. 4

~~reduce consumption of Energy consistent with the Reliability Rules and consistent with the ISO Procedures when called upon by the ISO and shall specify in its Bid the amount of time for which it can reduce consumption of Energy.~~

Class A Units may not use ~~contracts~~, **contract** to provide, or otherwise commit any Capacity that has been scheduled to operate or to provide Operating Reserves, in either the Day-Ahead commitment or any supplemental commitment conducted by the ISO. They also may not increase the Energy Bids made for the portions of those Generators that have been scheduled Day-Ahead to provide Spinning Reserve. They may enter into alternate sales arrangements utilizing any Capacity that has not been scheduled to operate or to provide Operating Reserves. Class B Units may not use, contract to provide or otherwise commit any Capacity that has been scheduled to provide Spinning Reserve, in either the Day-Ahead commitment or in any subsequent commitment by the ISO. Subject to the limitations on Installed Capacity Suppliers, if applicable, they may enter into alternate sales arrangements utilizing any Capacity that has not been scheduled to provide Spinning Reserve.

2.4 Spinning Reserve Service in Real-Time Operation

The ISO shall, if necessary, reduce the output on Class A Units via SCD from otherwise economic loading to provide Spinning Reserve capability. When reserve is activated, the ISO shall measure actual performance against expected performance and shall charge financial penalties, as detailed in Section 5 of this Rate Schedule to Suppliers of Spinning Reserve which fail to perform in accordance with their accepted bids.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

3.0 10-Minute NSR and 30-Minute Reserve Requirements and Responsibilities

3.1 Day-Ahead Market for 10-Minute NSR and 30-Minute Reserve

Suppliers offering Generators ~~or Demand Side Resources~~ to provide 10-Minute NSR and/or 30-Minute Reserve in the Day-Ahead commitment shall submit Availability Bids for each hour of the upcoming day. For Suppliers located east of the ~~Central-East~~ central-east constraint, Day-Ahead Availability Bids to provide 10-Minute NSR for each hour shall be limited to the incremental costs associated with the provision of 10-Minute NSR, not to exceed ~~\$2.52/MW~~: (i) for the period between November 1, 2000 and December 31, 2000, \$15/MW in each hour; and (ii) for the period between January 1, 2001 and April 30, 2001, \$30/MW in each hour. The ISO shall select Suppliers of 10-Minute NSR and 30-Minute Reserve for each hour of the upcoming day through the Day-Ahead commitment, using Bids and/or schedules provided by the Suppliers. The ISO shall notify each Supplier of 10-Minute NSR and/or 30-Minute Reserve that has been selected in the Day-Ahead schedule of the amount of 10-Minute NSR and/or 30-Minute Reserve it has been scheduled to provide.

Suppliers of 10-Minute NSR and/or 30-Minute Reserve scheduled Day-Ahead shall provide 10-Minute NSR and/or 30-Minute Reserve for all hours in which they have been scheduled to provide 10-Minute and/or 30-Minute Reserve.

3.2 Real-Time Markets for 10-Minute NSR and 30-Minute Reserve

During the day, Suppliers that have not been scheduled to provide 10-Minute NSR or 30-Minute Reserve and which still have Capacity that has not been committed for use in any other way may submit Availability Bids to provide 10-Minute NSR and/or 30-Minute Reserve to the ISO. These ~~Real-Time~~ real-time Availability Bids may differ from Availability Bids that were made by those

New York Independent System Operator, Inc.
No. 141A
FERC Electric Tariff No. 2
141A
Sched. 4

Original First Revised Sheet

Superseding Original Sheet No.

Suppliers in the Day-Ahead commitment, except that for Suppliers located east of the ~~Central-East~~ central-east constraint, ~~Real-Time~~ real-time Availability Bids to provide 10-Minute NSR for each hour shall be limited to the incremental costs associated with the provision of 10-Minute NSR, not to exceed \$2.52/MW; (i) for the period between November 1, 2000 and December 31, 2000, \$15/MW in each hour; and (ii) for the period between January 1, 2001 and April 30, 2001, \$30/MW in each hour. If the ISO anticipates that additional Suppliers of 10-Minute NSR or 30-Minute Reserve are needed in an hour, it shall select additional Suppliers of 10-Minute NSR or 30-Minute Reserve from among those Suppliers that have supplied ~~Real-Time~~ real-time Availability Bids

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

to it for that hour. It shall make this selection with the objective of minimizing the cost of meeting Load and providing all necessary Ancillary Services in that hour.

The ISO may perform multiple selections of Suppliers of 10-Minute NSR or 30-Minute Reserve for any given hour. Suppliers bidding to supply 10-Minute NSR or 30-Minute Reserve that have not already been scheduled to provide 10-Minute NSR or 30-Minute Reserve may change their ~~Real-Time~~ **real-time** Bids from one hour to the next, except that for Suppliers located east of the ~~Central-East Constraint, Real-Time~~ **central-east constraint, real-time** Availability Bids to provide 10-Minute NSR for each hour shall be limited to the incremental costs associated with the provision of 10-Minute NSR, not to exceed ~~\$2.52/MW~~: **(i) for the period between November 1, 2000 and December 31, 2000, \$15/MW in each hour; and (ii) for the period between January 1, 2001 and April 30, 2001, \$30/MW** in each hour. The ISO shall notify each Supplier of 10-Minute NSR or 30-Minute Reserve that has been scheduled in the ~~Real-Time~~ **real-time** dispatch of the amount of 10-Minute NSR or 30-Minute Reserve it must provide. Any Supplier whose Bid to provide 10-Minute NSR or 30-Minute Reserve is accepted by the ISO in the ~~Real-Time~~ **real-time** dispatch must make its Generators or ~~Demand Side Resources~~ available for dispatch by the ISO.

3.3 Suppliers' Responsibilities

Subject to the ISO's locational requirements, Suppliers of 10-Minute NSR or 30-Minute Reserve may use Generators located within the NYCA or outside the NYCA. In order for a Supplier to provide 10-Minute NSR or 30-Minute Reserve using a Generator located outside the NYCA, the operator of that Generator's Control Area must have agreed to modify the DNI between the NYCA and that Control Area instantaneously upon notification by the ISO that the ISO is initiating a reserve pick-up for the area including that Generator. The amount of a 10-Minute NSR provided by Generators within

any given External Control Area cannot exceed the

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

maximum amount by which the operator of that Control Area will change the DNI from that Control Area into the NYCA within ten (10) minutes of the initiation of a reserve pick-up by the ISO. Likewise, the amount of 30-Minute

Reserve provided by Generators within any given external Control Area cannot exceed the maximum amount by which the operator of that Control Area will change the DNI from that Control Area into the NYCA within thirty (30) minutes of the initiation of a reserve pick-up by the ISO. All Generators selected by the ISO as Suppliers of 10-Minute NSR or 30-Minute Reserve shall ensure that their Generators maintain and deliver the appropriate quantity of Energy when called upon by the ISO in all hours in which they have been scheduled to provide 10-Minute NSR or 30-Minute Reserve.

Suppliers may not use, contract to provide or otherwise commit any Capacity on any Generator that has been scheduled to provide 10-Minute NSR or 30-Minute Reserve in the Day-Ahead commitment or in the Real-Time dispatch. Subject to the limitations on Installed Capacity Suppliers, if applicable, they may enter into alternate sales arrangements utilizing any Capacity that has not been scheduled to provide 10-Minute NSR or 30-Minute Reserve in either the Day-Ahead commitment or in the Real-Time dispatch.

3.4 10-Minute NSR and 30-Minute Reserve Service in Real-Time Operation

Suppliers of 10-Minute NSR and 30-Minute Reserve shall respond to direction by the ISO to activate. When reserve is activated, the ISO shall measure actual performance against expected performance and shall charge financial penalties as detailed in Section 5 of this Rate Schedule, to Suppliers of 10-Minute NSR or 30-Minute Reserve which fail to perform in accordance with their accepted Bids.

4.0 Payments to Suppliers of Spinning Reserve

Locational Day-Ahead Availability Payments

Each Supplier which the ISO has scheduled Day-Ahead to provide Spinning Reserve shall be paid the Day-Ahead Availability price for Spinning Reserve in each hour, multiplied by the amount of Spinning Reserve that Supplier is scheduled to provide in each hour. The Day-Ahead Availability price for Spinning Reserve for each hour shall be equal to the highest Availability Bid of any resource scheduled in the Day-Ahead Availability Bid made by a Supplier that has been scheduled Market to meet any of the reserve requirements satisfied by reserves meeting the requirements applicable to Spinning Reserve at that location. ~~Day-Ahead to provide Spinning Reserve in that hour.~~ Availability prices will be calculated for Spinning Reserve located: (i) east of central-east, excluding Long Island; (ii) Long Island; and (iii) west of central east. When there are no binding locational reserve constraints between these three locations, the Day-Ahead Availability price for Spinning Reserve shall be the same in each of the three locations. When there are binding locational reserve constraints, separate Day-Ahead Availability prices may be paid to Spinning Reserve Suppliers in each of the three locations. The manner in which these separate payments are calculated shall be consistent with the examples set fort at pp. 1-4 of Attachment IV to the ISO's "Combined Compliance Filing and Repo Dockets ER00-1969-000, et al. on September 1, 2000 (as corrected on September 8, 2000), which is incorporated by reference herein. Whenever a Long Island locational reserve constraint is binding in the Day-Ahead Market, the amount paid to resources providing Spinning Reserve, per MW of Spinning Reserve scheduled applicable to the Long Island

Spinning Reserve requirement, will not exceed the east of central-east, excluding Long Island

Day-Ahead Spinning Reserve Availability price.

Locational Real-Time Availability Payments

Subject to the limitation in Section 4.3 below, each Supplier ~~whose Generator(s) provides~~
selected to provide more Spinning Reserve in an hour than it was scheduled Day-Ahead to provide in
that hour shall be paid the

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

~~New Real Time Availability price for Spinning Reserve in that hour, multiplied by the amount of Spinning Reserve that Supplier provided in that hour that was in excess of the amount scheduled to be provided Day Ahead, if any. The ISO shall calculate separate Real Time Availability prices for Spinning Reserve for each hour. The Real Time Availability price for Spinning Reserve for each hour shall be equal to the highest Real Time Availability Bid made by a Supplier providing Spinning Reserve in that hour that is providing more Spinning Reserve in that hour than it had been scheduled to provide in that hour in the Day Ahead schedule.~~

~~Real Time Availability prices for Spinning Reserve may change within an hour, if additional Suppliers are scheduled to begin providing this Service within an hour. In such cases, the price changes will apply only to the remaining portion of that hour. All Suppliers providing Spinning Reserve that receive the Real-time Availability price for Spinning~~ New York Independent System Operator, Inc.

First Revised **Original** Sheet No. 145 **144A**

FERC Electric Tariff No. 2 Superseding Original Sheet No. 145
Sched. 4

~~Reserve will be paid the Real Time Availability price applicable to the portion of the hour preceding the price change for all Spinning Reserve provided before the price change. All Suppliers providing Spinning Reserve that receive the Real Time Availability price for Spinning Reserve will be paid the Real Time Availability price~~ **at its location, multiplied by the amount of Spinning Reserve that Supplier**

provided that was in excess of the amount scheduled to be provided Day-Ahead, if any. The ISO shall calculate separate real-time Availability prices for Spinning Reserve for each hour.

The real-time Availability price for Spinning Reserve for each hour shall be equal to the highest Availability Bid of any resource scheduled in the hour-ahead market to meet any of the reserve requirements applicable to Spinning Reserve at that location that is providing more Spinning Reserve in that hour than it had been scheduled to provide in that hour in the Day-Ahead schedule. Real-time Availability prices will be calculated for Spinning Reserve located:

(i) east of central-east but not on Long Island; (ii) Long Island; and (iii) west of central-east.

When there are no binding locational reserve constraints between these three locations, the real-time Availability price for Spinning Reserve shall be the same in each of the three

locations. When there are binding locational reserve constraints, separate Availability prices may be paid to Spinning Reserve Suppliers in each of the three locations. The manner in which

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

these separate payments are calculated shall be consistent with the examples set forth at pp. 1-4 of Attachment IV to the ISO's "Combined Compliance Filing and Report," submitted in Docket Nos. ER00-1969-000, et al. on September 1, 2000 (as corrected on September 8, 2000), which is incorporated by reference herein. Whenever a Long Island locational reserve constraint is binding in the hour-ahead market, the amount paid to resources providing Spinning Reserve, per MW of Spinning Reserve scheduled applicable to the ~~portion of the hour~~ following the price change for all Long Island Spinning Reserve requirement, will not exceed the east of central-east excluding Long Island real-time Spinning Reserve provided after the Availability price change.

Acceptance of any Spinning Reserve Bid in the ~~Real-Time~~ real-time Market shall not affect the ~~Availability~~ availability price for Spinning Reserve that was determined Day-Ahead.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

Locational Lost Opportunity Cost Payments

A Class A Supplier of Spinning Reserve which that produces less Energy in the Real Time real-time dispatch than it would have been economic for it to produce because ~~it has been selected (in the Day Ahead or Real Time Markets)~~ of its selection to provide 10-Minute Spinning Reserve will be paid for Lost Opportunity Costs ("LOC"). The Lost Opportunity Cost Payment ("LOCP") that each such Supplier receives in each SCD interval shall be computed by multiplying the following: (i) the Marginal Lost Opportunity Cost ("MLOC") LOC of that Supplier at that location in that interval, in \$/MW; (ii) the number of MW of Spinning Reserve supplied by that Supplier in that interval; and (iii) the length of the SCD interval, in hours. ~~MLOC~~ LOC in each SCD interval shall be calculated as follows:

$$MLOC \text{ } LOC = \max_{i \in S} (P_i - B_i, 0)$$

where:

$B_i =$ ~~Real Time Energy Bid by Generator i at the level at which it is dispatched.~~ For units scheduled to provide Spinning Reserve both Day-Ahead and hour-ahead, the Bid is the higher of the Day-Ahead or real-time bid. For units scheduled only hour-ahead, it is the real-time Energy Bid. If Bids lower than zero are submitted, B_i shall equal zero.

$P_i =$ ~~Real-Time LBMP at Generator i 's location in that interval; and~~

~~$S_i =$ Set of Generators whose Energy output in that interval has been reduced below the level that otherwise would have been economic, due to the fact that they have~~

~~been selected (either Day Ahead or Real Time) to provide Spinning Reserve.~~ New LOC will be

calculated on a locational basis. Suppliers with Class B Units scheduled for Spinning Reserve

shall not receive LOC payments for Capacity that was not available to be scheduled to

generate Energy.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: May 31, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

New York Independent System Operator, Inc.
No. 145A
FERC Electric Tariff No. 2
145A
Sched. 4

Original First Revised Sheet

Superseding Original Sheet No.

[Withdrawn]

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

~~New~~ In cases where Spinning Reserve is bottled (meaning that there are active transmission Constraints on the locations at which Spinning Reserve can be supplied), MLOC will be calculated on a locational basis. ~~Suppliers with Class B Units scheduled for Spinning Reserve shall not receive Lost Opportunity Cost payments.~~ New York Independent System Operator, Inc. Original First

Revised Sheet No. 146

FERC Electric Tariff No. 2
Sched. 4

Superseding Original Sheet No. 146

Other Payments

The ISO shall pay the Real-Time LBMP for all Energy generated in accordance with the ISO's instructions ~~by Suppliers of Spinning Reserve~~. (Suppliers of Spinning Reserve shall be paid for Energy produced during reserve pick-ups in accordance with the provisions of Article 4 of the Tariff relative to ~~Real-Time~~ real-time Settlements.) Real-Time LBMPs shall be computed under the assumption that all Energy generated by Class B Units supplying Spinning Reserve are fixed injections.

As provided in Article 4 of the Tariff, each Generator providing Spinning Reserves shall also be compensated by the ISO if its Bid Production Cost to produce provide the Energy and Ancillary Services the ISO has requested it to generate scheduled it to supply in the Day-Ahead Market, including start-up costs, minimum Load costs, and Availability Bids exceeds the revenues it receives from the sale of Energy at LBMP prices, and ancillary services, including real-time opportunity costs for ancillary services scheduled Day-Ahead. On any day that Long Island reserve constraints are binding, the NYISO reserves the right to allocate to Long Island customers the net incremental bid production cost guarantee charges for Long Island units that have been committed for either Energy or Operating Reserves, if it is determined that a Long Island Reserve constraint caused those units to be committed.

4.1 **Payments to Suppliers of 10-Minute Non-Synchronized Reserve**

Locational Day-Ahead Availability Payments

Each Supplier which the ISO has scheduled Day-Ahead to provide 10-Minute NSR shall be

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

s. ER00-1969-000, et al. on September 1, 2000 (as corrected
on September 8, 2000), which is incorporated by reference herein. Whenever the Long Island
locational ten minute total or 30 minute total reserve constraints are binding in the Day-Ahead
Market, the amount paid to 10-Minute NSR Suppliers, per MW of 10-Minute NSR that

Generator provided scheduled applicable to the Long Island ten minute total reserve requirement, will not exceed the east of central-east excluding Long Island Day-Ahead 10-Minute NSR Availability price.

Locational Real-Time Availability Payments

Each Supplier that provides more 10-Minute NSR than it was scheduled Day-Ahead to provide in that hour shall be paid the real-time Availability price for 10-Minute NSR at its location, multiplied by the amount of 10-Minute NSR that Supplier provided that was in excess of the amount scheduled to be

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

provided Day-Ahead, if any. The ISO shall calculate separate ~~Real-Time~~ real-time Availability prices for 10-Minute NSR for each hour. The ~~Real-Time~~ real-time Availability price for 10-Minute NSR for each hour shall be equal to the highest ~~Real-Time~~ Availability Bid ~~made by a Supplier providing~~ of any resource scheduled in the real-time Market to meet any of the reserve requirement satisfied by reserves requirements applicable to 10-Minute NSR in at that hour location that is providing more 10-Minute NSR in that hour than it had been scheduled to provide in that hour in the Day-Ahead schedule. ~~Real-Time~~ time Availability Prices prices will be calculated for 10-Minute NSR ~~may change within an hour, if additional Suppliers are scheduled to begin providing this Service within an hour. In such cases, the price changes will apply only to the remaining portion of that hour. All Suppliers providing~~ located: (i) east of central-east excluding Long Island; (ii) Long Island; and (iii) west of central-east. When there are no binding locational reserve constraints between these three locations, the real-time Availability price for Spinning Reserve shall be the same in each of the three locations. When there are binding locational reserve constraints, separate real-time Availability prices may be paid to 10-Minute NSR ~~that receive the Real-Time~~ Suppliers in each of the three locations. The manner in which these separate payments are calculated shall be consistent with the examples set forth at pp. 1-4 of Attachment IV to the ISO's "Combined Compliance Filing and Report," submitted in Docket Nos. ER00-1969-000, et al. on September 1, 2000 (as corrected on September 8, 2000), which is incorporated by reference herein.

Whenever the Long Island locational ten minute total or 30 minute total reserve constraints are binding in the hour-ahead market, the amount paid to 10-Minute NSR Suppliers, per MW

of 10-Minute NSR scheduled applicable to the Long Island ten minute total reserve requirement, will not exceed the east of central-east excluding Long Island real-time 10-Minute NSR Availability price.

Acceptance of any Supplier's Bid to supply 10-Minute NSR in the real-time Market shall not affect the Availability price for 10-Minute NSR ~~will be paid the Real Time Availability price applicable to the portion of the hour preceding the price change for all 10 Minute NSR provided before the price change. All Suppliers providing 10 Minute NSR that receive the Real Time Availability Price for 10 Minute NSR will be paid the Real Time Availability price applicable to the portion of the hour following the price change for all 10 Minute NSR provided after the price change.~~ that was determined Day-Ahead.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

* 1 moved from here; text not shown

Lost Opportunity Cost Payments

~~A supplier of 10 Minute NSR which produces less Energy in the Real Time Dispatch than it would have been economic for it to produce because it has been selected to provide 10 Minute NSR will be paid its~~

~~Lost New York Independent System Operator, Inc. Original Sheet No. 147A~~

~~FERC Electric Tariff No. 2~~

~~Sched. 4~~

~~**Opportunity Costs. The Locational Lost Opportunity Cost Payment (“LOCP”)**~~

Payments

A Supplier of 10-Minute NSR which produces less Energy in the real-time Dispatch

than it would have been economic for it to produce because it has been selected (in the Day-

Ahead or Real-Time Markets) to provide 10-Minute NSR will be paid for LOC. The LOC

payment that each such Supplier receives in each SCD interval shall be computed by multiplying (i) ~~the~~

~~interval duration in seconds by the difference between (ii) the projected LBMP revenue~~ **the following:**

(i) the LOC of that the Supplier **at that location in that interval, in \$/MW; (ii) the amount of**

generation that would have received **been scheduled had the Supplier not provided reserve;** and

(iii) the Generator's production cost, based on its energy bid, **length of the SCD interval, in hours.**

LOC in each SCD interval shall be calculated as follows:

$$LOCP = I * \underline{LOC}_i = \max (P_i - B_i , 0)$$

where:

I = the interval duration;

B_i = ~~the production cost of~~ **Energy Bid by** Generator *i* based on its **at the level at which it is dispatched. For units scheduled to provide 10-Minute NSR Day-Ahead energy bid if selected in and hour-ahead, the Bid is the higher of** the Day-Ahead market, or its **or real-time Bid. For unites scheduled only** hour-ahead, **it is** energy bid if selected in the hour-ahead market; and

Issued by: William J. Museler, President

Effective: May 31, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

P_i = the projected LBMP revenue of Generator i based on the real-time Energy Bid. If Bids less than zero are submitted, B_i LBMP.

If the foregoing calculation results in a negative LOCP, the LOCP shall be set equal to zero.

P_i = For the interval and for units scheduled to provide reserve both Day-Ahead and hour-ahead, this shall be the Day-Ahead LBMP at Generator's location unless the resultant LOC is less than or equal to zero, in which case it shall be the Real-Time LBMP at the Generator location. For the interval and for units scheduled to provide reserve hour-ahead, this shall be Real-Time LBMP at Generator's location.

Other Payments

The ISO shall pay the Real-Time LBMP for all Energy generated ~~in accordance with the ISO's instructions~~ by Suppliers of 10-Minute NSR in accordance with the ISO's instructions.

(Suppliers of 10-Minute NSR shall be paid for Energy produced during reserve pick-ups in accordance with the provisions of Article 4 related to Real-Time Market Settlement.)

As provided in Article 4 of the Tariff, each 10-Minute NSR Supplier shall also be compensated by the ISO if its Bid Production Cost to produce the Energy the ISO has requested it to generate, including start-up costs, exceeds the revenues it receives from ancillary service Availability payments and the sale of Energy at LBMP prices.

4.2 Payments to Suppliers of 30-Minute Reserve

Locational Day-Ahead Availability Payments

Each Supplier scheduled Day-Ahead to provide 30-Minute Reserve shall be paid the Day-Ahead Availability price for 30-Minute Reserve at its location in each hour, multiplied by the amount of 30-Minute Reserve that the Supplier is scheduled to provide in each hour. The Day-Ahead Availability price for 30-Minute Reserve for each hour shall be equal to the highest Availability Bid of any resource scheduled in the ~~Day-Ahead Availability Bid made by a Supplier that has been scheduled~~ Day-Ahead Market to meet any of the reserve requirements satisfied by reserves meeting the requirements applicable to provide 30-Minute Reserve at that location. Day-Ahead Availability prices will be calculated for ~~in that hour.~~

~~Subject to the limitation in Section 4.3 below, each Supplier which provides more 30-Minute Reserve than it was scheduled~~ Reserves located: (i) east of central-east excluding Long Island; (ii) Long Island; and (iii) west of central-east. When there are no binding locational reserve constraints between these three locations, the ~~Day-Ahead to provide in each hour shall be paid the Real Time Availability price for 30-Minute Reserve, multiplied by the amount of 30-Minute Reserve that the Supplier provided in that hour that was in excess of the amount scheduled to be provided~~ shall be the

same in each of the three locations. When there are binding locational reserve constraints,
separate Day-Ahead, if any. The ISO shall calculate separate Real Time Availability prices for may be
paid to 30-Minute Reserve for each hour. The Real Time Availability price for 30 Minute Reserve for
each hour Suppliers in each of the three locations. The manner in which these separate
payments are calculated shall be equal to the highest Real Time Availability Bid made by a Supplier
providing 30 Minute Reserve in that hour that is providing more 30 Minute Reserve in that hour than it
had been scheduled to provide in that hour consistent with the examples set forth at pp. 1-4 of
Attachment IV of the ISO's "Combined Compliance Filing and Report," submitted in Docket
Nos. ER00-1969-000, et al., on September 1, 2000 (as corrected on September 8, 2000), which
is incorporated by reference herein. Whenever the Long Island locational 30 minute total
reserve constraint is binding in the Day-Ahead schedule. Real time Availability prices for 30 Minute
Reserve may change within New Market, the

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

~~an hour, if additional Suppliers are scheduled to begin providing this service within an hour. In such cases, the price changes will apply only to the remaining portion of that hour. All Suppliers amount paid to resources providing 30-Minute Reserve that receive the , per MW of 30-Minute Reserve scheduled applicable to the Long Island 30 minute total reserve requirement, will not exceed the east of central east excluding Long Island Day-Ahead 30-Minute Reserve Availability price.~~

Locational Real-Time Availability Payments

~~Each Supplier selected to provide more 30-Minute Reserve than it was scheduled Day-Ahead to provide in each hour shall be paid the real-time~~ Availability price for 30-Minute Reserve will be paid the Real Time Availability price applicable to the portion at its location, multiplied by the amount of the hour preceding the price change for all 30-Minute Reserve provided before the price change. All Suppliers providing 30-Minute Reserve that receive the Real Time the Supplier provided that was in excess of the amount scheduled to be provided Day-Ahead, if any. The ISO shall calculate separate real-time Availability price prices for 30-Minute Reserve will be paid the Real Time for each hour. The real-time Availability price applicable to the portion of the hour following the price change for all 30-Minute Reserve provided after the price change. Acceptance of any Bid to supply 30-Minute Reserve for each hour shall be equal to the highest Availability Bid of any resource scheduled in the Real-Time Market shall not affect the to meet any of the reserve requirement satisfied by reserves meeting the requirements applicable to 30-Minute reserves at that location that is providing more 30-Minute Reserve in that hour than it had been scheduled to provide in that hour in the Day-Ahead schedule. Real-time Availability prices will

be calculated for 30-Minute Reserves located: (i) east of central-east excluding Long Island; (ii) Long Island; and (iii) west of central-east. When there are no binding locational reserve constraints between these three locations, the real-time Availability price for 30-Minute Reserve shall be the same in each of the three locations. When there are binding locational reserve constraints, separate real-time Availability prices may be paid to that was determined Day-Ahead.

Other Payments

The ISO shall pay the Real Time LBMP for all Energy generated in accordance with the ISO's instructions by Suppliers of 30-Minute Reserve. (Suppliers of 30-Minute Reserve Suppliers in each of the three locations. The manner in which these separate payments are calculated shall be paid for Energy produced during reserve pick ups in accordance consistent with the provisions of Article 4 related to Real Time Settlement.) As provided in Article 4 of the Tariff, each Supplier providing 30-Minute Reserve shall also be compensated by the ISO if its Bid Production Cost to produce the Energy the ISO has requested it to generate, including start up costs, exceeds the revenues it receives from the sale of Energy at LBMP prices. examples set forth at pp. 1-4 of Attachment IV to the ISO's "Combined Compliance Filing and Report," submitted in Docket Nos. ER00-1969-000, et al. on September 1, 2000 (as corrected on September 8, 2000), which is incorporated by reference herein. Whenever the

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

148B

~~4.3 Exceptions~~ FERC Electric Tariff No. 2

* 2 moved from here; text not shown

~~FERC Electric Tariff No. 2 Superseding Original Sheet No. 150~~
Sched. 4

* 3 moved from here; text not shown

~~5.0 Failure to Provide Operating Reserves~~ Long Island locational 30 minute total reserve

constraint is binding in the Day-Ahead Market, the amount paid to resources providing 30-

Minute Reserve, per MW of 30-Minute Reserve scheduled applicable to the Long Island 30

minute total reserve requirement, will not exceed the east of central-east excluding Long

Island Day-Ahead 30-Minute Reserve Availability price.

* 4 moved from here; text not shown

* 5 moved from here; text not shown

FERC Electric Tariff No. 2

Superseding Original Sheet No. 151

149

Sched. 4

**** 1** Acceptance of any ~~Supplier's Bid to supply 10-30-Minute NSR~~ Reserve in the Real-Time Market shall not affect the Availability price for ~~10-30-Minute NSR~~ Reserve that was determined Day-Ahead.

Other Payments

The ISO shall pay the Real-Time LBMP for all Energy generated in accordance with the ISO's instructions ~~by Suppliers of 30-Minute Reserve~~. (Suppliers of 30-Minute Reserve shall be paid for Energy produced during reserve pick-ups in accordance with the provisions of Article 4 related to real-time Settlement.) As provided in Article 4 of the Tariff, each 30-Minute Reserve Supplier shall also be compensated by the ISO if its Bid Production Cost to produce the Energy the ISO has requested it to generate, including start-up costs, exceeds the revenues it receives from ancillary service

Availability payments and the sale of Energy at LBMP prices. On any day that Long Island reserve constraints are binding, the ISO reserves the right to allocate to Long Island customers the net incremental bid production cost guarantee charges for Long Island units that have committed for either Energy or Operating Reserves, if it is determined that a Long Island reserve constraint caused those units to be committed.

4.3 Exceptions

**** 2** Notwithstanding anything to the contrary in this Rate Schedule, no payments shall be made to any Supplier providing Operating Reserves for reserves provided by that Supplier in excess of the amount of Operating Reserves scheduled by the ISO either Day-Ahead or

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

** 3 in any subsequent schedule. The market clearing price paid to Suppliers of any category of Operating Reserve shall not be determined by any Bid to supply Operating Reserve that has not been accepted by the ISO.

5.0 Failure to Provide Operating Reserves

** 4 If a Supplier reduces its Capacity Bid subsequent to being scheduled to provide Regulation Service or Operating Reserves (either Day-Ahead or in a supplemental commitment), and if the ISO must, as a result, reduce the amount of Operating Reserves that Supplier is scheduled to provide in accordance with Rate Schedule 3 of this Tariff, the ISO will first reduce the amount of 30-Minute Reserve that Generator is scheduled to provide. If it is still necessary to reduce the amount of Operating Reserves that Supplier is scheduled to provide, the ISO will reduce the amount of 10-Minute NSR that Generator is scheduled to provide. Finally, if it is still necessary to reduce the amount of Operating Reserves that Supplier is scheduled to provide, the ISO will reduce the amount of Spinning Reserve that Generator is scheduled to provide.

** 5 If a Supplier scheduled Day-Ahead to provide Operating Reserves trips off-line and consequently is unable to provide Spinning Reserve, or if the amount of Operating Reserves a Supplier is scheduled to provide is decreased due to a reduction in that Supplier's Capacity, it shall be charged the Real-Time Availability price at its location (or the Day-Ahead Availability price, if there is no Real-Time Availability price) in each hour for the relevant category of Operating Reserves applied to the reduction in the amount of Operating Reserves it was scheduled Day-Ahead to ~~provide.~~New provide at that location.

If the ISO calls for a Supplier of any category of Operating Reserves (other than a Supplier that has previously tripped off-line) to generate Energy with part or all of the Capacity that the ISO has scheduled to provide any category of Operating Reserves, and that Supplier fails to provide the amount of Energy requested by the ISO within the time applicable for the scheduled Operating Reserves (ten (10) or thirty (30) minutes), the ISO shall:

- (1) not pay the non-performing Supplier for any shortfall in the amount of Energy provided;
- (2) charge the Supplier for any shortfall in the amount of Energy provided, at the Real-Time LBMP for Energy at that Supplier's location;
- (3) charge the Supplier a regulation penalty, as described in Rate Schedule 3;
and
- (4) reduce any Availability payments for the scheduled Operating Reserves, and any Lost Opportunity Cost payments, if applicable, that the Supplier would otherwise have received for the 24-hour billing period in which that Supplier failed to perform as scheduled. The Availability payments and the Lost Opportunity Cost payments, if applicable, that the Supplier would have received will be calculated by multiplying the average ratio of the amount of Energy supplied to the amount of Energy scheduled,

during any activation of that Supplier during that 24-hour billing period by the applicable Availability payments and Lost Opportunity Cost payments, if applicable, that the Supplier would otherwise have received.

If a Generator providing Operating Reserves has repeatedly failed to provide Energy when called upon by the ISO, the ISO may preclude that Generator from providing Operating Reserves in the future. If a specific Generator has been precluded from supplying Operating Reserves, the ISO shall require that Generator to pass a re-qualification test before accepting any additional Bids to supply Operating Reserves from that Generator.

6.0 Self-Supply

Transactions may be entered into to provide for Self-Supply of Operating Reserves. **Except as noted in the next paragraph,** Customers seeking to Self-Supply Operating Reserves must place the Generator(s) supplying any one of the Operating Reserves under ISO control. The Generator(s) must meet ISO rules for acceptability. The amount that any such Customer will be charged for Operating Reserves will be reduced by the market value of the services provided by the specified Generator(s) as determined in the ISO Services Tariff.

Alternatively, Customers, including LSEs, may enter into Day-Ahead Bilateral financial Transactions, e.g., contracts-for-differences, in order to hedge against price volatility in the Operating Reserves markets.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

----- COMPARISON OF FOOTERS -----

-FOOTER 1-

Issued by: ~~Jane Lathrop, Regulatory Affairs Manager~~ William J. Museler, President Effective: ~~May 31~~

November 1, 2000

Issued on: ~~June 15~~ September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued

May 31, 2000.

-FOOTER 2-

Issued by: William J. Museler, President Effective: May 31, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000,

issued May 31, 2000.

-FOOTER 3-

Issued by: William J. Museler, President Effective: November 1, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000,

issued May 31, 2000.

-FOOTER 4-

Issued by: William J. Museler, President Effective: May 31, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000,

Issued by: William J. Museler, President

Effective: November 1, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

issued May 31, 2000.

-FOOTER 5-

Issued by: William J. Museler, President Effective: November 1, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000,

issued May 31, 2000.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

----- REVISION LIST -----

The bracketed numbers refer to the Page and Paragraph for the start of the paragraph in both the old and the new documents.

[3:6 3:6] Changed "Reserves." to "Reserves.New ... Sheet No. 138"

[3:7 4:1] Del Paras "Effective September ... Revised Sheet No. 138"

[5:5 5:5] Changed "Third " to "Fourth "

[6:1 6:1] Changed "Second " to "Third "

[6:5 6:5] Changed "Original " to "First Revised "

[7:1 7:1] Changed "2" to "2 Superseding ... Sheet No. 139A"

[7:3 7:3] Changed "when called ... called" to "when called"

[7:4 7:3] Changed "Energy. Each ... able to New" to "Energy. New"

[7:4 7:3] Changed "Original " to "First Revised "

[8:1 8:1] Changed "2 " to "2 Superseding ... Sheet No. 140"

[8:3 8:3] Del Para "reduce consumption ... consumption of Energy."

[8:4 8:3] Changed "contracts " to ", contract "

[8:4 8:3] Changed "contracts ... otherwise commit" to "contract to ... otherwise commit"

[8:6 8:5] Changed "Second " to "Third "

[9:1 9:1] Changed "First " to "Second "

[9:5 9:5] Changed "Generators ... Resources to" to "Generators to"

[9:5 9:5] Changed "Central-East " to "central-east "

[9:5 9:5] Changed "\$2.52/MW " to ": (i) for ... 2001, \$30/MW "

[9:8 9:8] Changed "Real-Time " to "real-time "

[9:8 9:8] Changed "Original " to "First Revised "

[10:1 10:1] Changed "2" to "2 Superseding ... Sheet No. 141A"

[10:3 10:3] Changed "Central-East " to "central-east "

[10:3 10:3] Changed "constraint, ... Availability" to "constraint, ... Availability"

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[10:3 10:3] Changed "\$2.52/MW " to ": (i) for ... 2001, \$30/MW "

[10:3 10:3] Changed "supplied Real-Time Availability" to "supplied real-time Availability"

[10:3 10:3] Changed "Third " to "Fourth "

[11:1 11:1] Changed "Second " to "Third "

[11:4 11:4] Changed "their Real-Time Bids" to "their real-time Bids"

[11:4 11:4] Changed "Central-East ... Real-Time " to "central-east ... real-time "

[11:4 11:4] Changed "\$2.52/MW " to ": (i) for ... 2001, \$30/MW "

[11:4 11:4] Changed "in the Real-Time dispatch of" to "in the real-time dispatch of"

[11:4 11:4] Changed "in the Real-Time dispatch must" to "in the real-time dispatch must"

[11:4 11:4] Changed "Generators ... available" to "Generators available"

[13:6 13:6] Changed "First " to "Second "

[14:1 14:1] Changed "Original " to "First Revised "

[14:4 14:4] Changed "Availability" to "Locational ... Availability"

[14:5 14:5] Changed "highest Day-Ahead ... scheduled" to "highest Availability ... location."

[14:5 14:5] Changed "to provide ... that hour." to "Availability ... Availability price."

[14:5 14:6] Add Para "Locational Real-Time Availability Payments "

[14:6 14:7] Changed "whose Generator(s) provides " to "selected to provide "

[14:6 14:7] Changed "the Real-Time ... multiplied by the " to "the "

[14:6 14:7] Changed "the Real-Time" to "the New York ... Sheet No. 144A"

[14:7 14:7] Del Para "amount of Spinning ... Day-Ahead schedule."

[14:8 14:7] Changed "Real-Time ... SpinningNew York" to "York"

[14:8 14:7] Changed "Operator Inc. First Revised" to "Operator, Inc. Original"

[14:8 14:7] Changed "145" to "144A"

[15:1 15:1] Changed "2 Superseding ... Sheet No. 145" to "2"

[15:3 15:3] Changed "Reserve will ... Availability" to "Availability"

[15:3 15:3] Changed "Spinning Reserve ... applicable to" to "Spinning Reserve ... applicable to"

[15:3 15:3] Changed "portion of ... change for all " to "Long Island ... real-time "

[15:3 15:3] Changed "provided after the " to "Availability "

[15:3 15:3] Changed "after the price change." to "Reserve Availability price."

Issued by: William J. Museler, President
 Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[15:4 15:4] Changed "Real-Time " to "real-time "

[15:4 15:4] Changed "Availability " to "availability "

[15:5 16:1] Add Paras "New York Independent ... Sched. 4"

[15:5 16:4] Changed "Lost" to "Locational Lost"

[15:6 16:5] Changed "which " to "that "

[15:6 16:5] Changed "the Real-Time dispatch" to "the real-time dispatch"

[15:6 16:5] Changed "it has been ... Markets) " to "of its selection "

[15:6 16:5] Changed "provide Spinning" to "provide 10-Minute Spinning"

[15:6 16:5] Changed "Costs." to "Costs ("LOC")."

[15:6 16:5] Changed "Marginal Lost ... ("MLOC") " to "LOC of that ... location "

[15:6 16:5] Changed "MLOC " to "LOC "

[15:7 16:6] Changed "MLOC = max iGs (" to "LOC = max ("

[15:7 16:6] Changed "Bi)" to "Bi, 0)"

[15:9 16:8] Changed "= Real-Time Energy" to "= Energy"

[15:9 16:8] Changed ";" to ". For units ... equal zero."

[15:10 16:9] Changed "; and " to ". "

[15:11 16:10] Del Para "Si = Set of Generators ... that they have"

[15:12 16:10] Changed "been selected ... Reserve.New " to "LOC will be ... Energy.New "

[15:12 16:10] Changed "Original " to "First Revised "

[16:1 17:1] Changed "2" to "2 Superseding ... Sheet No, 145A"

[16:3 17:3] Add Para "[Withdrawn]"

[16:3 18:1] Changed "In cases where ... payments.New " to "New "

[16:3 18:1] Changed "Original " to "First Revised "

[17:1 18:2] Changed "2" to "2 Superseding ... Sheet No. 146"

[17:4 18:5] Changed "instructions ... Spinning Reserve." to "instructions."

[17:4 18:5] Changed "to Real-Time Settlements.)" to "to real-time Settlements.)"

[17:4 18:6] Changed "produce " to "provide "

[17:4 18:6] Changed "Energy the" to "Energy and ... Services the"

[17:4 18:6] Changed "requested it to generate" to "scheduled ... Day-Ahead Market"

Issued by: William J. Museler, President Effective: November 1, 2000
 Issued on: September 8, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[17:4 18:6] Changed "costs, exceeds" to "costs, minimum ... Bids exceeds"

[17:4 18:6] Changed "prices." to "prices, and ... committed."

[17:4 18:7] Changed ".
" to "4.1 "

[17:6 18:8] Changed "Availability" to "Locational ... Availability"

[17:7 18:9] Changed "10-Minute NSR in each" to "10-Minute ... location in each"

[17:7 18:9] Changed "NSR that" to "NSR at each location that"

[17:7 18:9] Changed "highest Day-Ahead ... that hour." to "highest Availability ... the reserve "

[17:8 18:10] Add Paras "New York Independent ... Sched. 4"

[17:8 18:13] Changed "Subject to ... provides more " to "requirements ... applicable to "

[17:8 18:13] Changed "than it was scheduled " to "at that location. "

[17:8 18:13] Changed "Day-Ahead ... Availability price" to "Day-Ahead ... calculated"

[17:8 18:13] Changed ", multiplied by the amount " to "located: (i) ... Suppliers, per MW "

[17:8 18:13] Changed "NSR that" to "NSR scheduled ... Availability price."

[17:8 18:13] Changed "NSR that Generator ... Sheet No. 147" to "NSR "

[17:8 18:14] Add Para "Locational Real-Time Availability Payments "

[17:8 18:15] Changed "NSR that" to "Each Supplier ... provide in"

[17:8 18:15] Changed "hour that" to "hour shall ... provided that"

[17:8 18:15] Changed "Second " to "Third "

[18:1 19:1] Changed "First " to "Second "

[18:3 19:3] Changed "separate Real-Time Availability" to "separate real-time Availability"

[18:3 19:3] Changed "The Real-Time Availability" to "The real-time Availability"

[18:3 19:3] Changed "highest Real-Time Availability" to "highest Availability"

[18:3 19:3] Changed "made by a ... providing " to "of any resource ... applicable to "

[18:3 19:3] Changed "10-Minute ... hour that" to "10-Minute ... location that"

[18:4 19:3] Changed "Real-Time Availability Prices" to "Real-time ... calculated"

[18:4 19:3] Changed "may change ... providing " to "located: (i) ... be paid to "

[18:4 19:3] Changed "hour. All ... Availability price" to "may be paid ... Availability price."

[18:4 19:4] Changed "10-Minute ... Availability price" to "Acceptance ... Availability price"

Issued by: William J. Museler, President
 Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[18:4 19:4] Changed "will be paid ... price change." to "that was determined ... Sheet No. 147A"

[18:4 20:1] Add Para "FERC Electric Tariff ... Sheet No. 147A"

[18:5 24:3] Mvd Para "Acceptance of any ... determined Day-Ahead. "

[18:6 20:2] Del Paras "Lost Opportunity ... Electric Tariff No. 2"

[19:3 20:3] Changed "Opportunity Costs. The " to "Locational "

[19:3 20:3] Changed "Cost Payment" to "Cost Payments"

[19:3 20:4] Changed "Payment ("LOCP") " to "A Supplier ... LOC payment "

[19:3 20:4] Changed "(i) the interval ... LBMP revenue " to "the following: (i) the LOC of "

[19:3 20:4] Changed "that the Supplier " to "that Supplier ... generation that"

[19:3 20:4] Changed "received " to "been scheduled ... reserve; "

[19:3 20:4] Changed "Generator's ... energy bid, " to "length of ... calculated "

[19:4 20:5] Changed "LOCP = I * " to "LOCI = max "

[19:4 20:5] Changed ")" to ", 0)"

[19:7 20:8] Changed "the production cost of " to "Energy Bid by "

[19:7 20:8] Changed "based on its " to "at the level ... 10-Minute NSR "

[19:7 20:8] Changed "Day-Ahead ... selected in the" to "Day-Ahead ... higher of the"

[19:7 20:8] Changed "market, or its " to "or real-time ... scheduled only "

[19:7 20:8] Changed "hour-ahead ... market; and" to "hour-ahead"

[19:8 20:8] Changed "Pi = the projected ... based on " to ", it is "

[19:8 20:8] Changed "real-time LBMP." to "real-time "

[19:9 20:8] Changed "If the foregoing ... the LOCP " to "Energy Bid. ... submitted, Bi "

[19:9 20:8] Changed "set " to "equal "

[19:9 20:9] Add Para "Pi = For the interval ... Generator's location."

[19:11 20:10] Changed "generated in accordance with" to "generated "

[19:12 20:11] Changed "the ISO's instructions by" to "by"

[19:12 20:11] Changed "NSR." to "NSR in accordance ... instructions."

[19:12 20:11] Changed "Original " to "First Revised "

[20:1 21:1] Changed "2" to "2 Superseding ... Sheet No. 148"

[20:3 21:3] Changed "from the" to "from ancillary ... payments and the"

Issued by: William J. Museler, President
 Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[20:5 21:5] Changed "Availability" to "Locational ... Availability"

[20:6 21:6] Changed "30-Minute Reserve in each" to "30-Minute ... location in each"

[20:6 21:6] Changed "highest Day-Ahead ... that hour." to "highest Availability ... 30-Minute Reserve "

[20:7 21:6] Changed "Subject to ... provides more " to "at that location. ... calculated for "

[20:7 21:6] Changed "Reserve than ... scheduled " to "Reserves located: ... locations, the "

[20:7 21:6] Changed "Day-Ahead ... Availability" to "Day-Ahead Availability"

[20:7 21:6] Changed ", multiplied ... provided " to "shall be the ... separate "

[20:7 21:6] Changed "Day-Ahead, ... 30-Minute" to "Day-Ahead ... 30-Minute"

[20:7 21:6] Changed "for each hour. ... each hour " to "Suppliers ... calculated "

[20:7 21:6] Changed "equal to the ... that hour " to "consistent ... is binding "

[20:7 21:6] Changed "schedule. ... withinNew " to "Market, the New "

[20:7 21:6] Changed "149" to "148A"

[21:3 22:3] Changed "an hour, if ... Suppliers " to "amount paid to resources "

[21:3 22:3] Changed "hour. All ... Availability price" to "paid to resources ... Availability price."

[21:3 22:4] Changed "hour. All ... 30-Minute" to "Locational ... 30-Minute"

[21:3 22:5] Changed "provided after ... 30-Minute Reserve " to "for each hour ... scheduled "

[21:3 22:5] Changed "shall not affect the " to "to meet any ... real-time "

[21:3 22:5] Changed "Reserve that ... Day-Ahead." to "Reserve "

[21:3 22:5] Changed "30-Minute Reserve that was" to "30-Minute ... Sheet No. 148B"

[21:4 22:5] Del Para "Other Payments"

[21:5 22:5] Changed "The ISO shall ... 30-Minute" to " 30-Minute"

[21:5 22:5] Changed ". (Suppliers of 30-Minute Reserve " to "Suppliers ... calculated "

[21:5 22:5] Changed "paid for Energy ... accordance " to "consistent "

[21:5 22:5] Changed "provisions ... LBMP prices." to "examples set ... Sheet No. 148B"

[21:6 23:1] Changed "4.3 Exceptions" to "FERC Electric Tariff No. 2"

[21:7 24:7] Mvd Para "Notwithstanding ... Revised Sheet No. 150"

[22:1 23:2] Changed "FERC Electric ... Sched." to "Sched."

[22:3 25:3] Mvd Para "in any subsequent ... accepted by the ISO."

Issued by: William J. Museler, President
 Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[22:4 23:3] Changed "5.0 Failure ... Operating Reserves" to "Long Island ... Sheet No. 149"

[22:5 25:5] Mvd Para "If a Supplier reduces ... scheduled to provide."

[22:6 25:6] Mvd Para "If a Supplier scheduled ... Revised Sheet No. 151"

[23:1 24:1] Changed "151" to "149"

[18:5 24:3] Mvd Para "Acceptance of any ... determined Day-Ahead."

[18:5 24:3] Changed "any Supplier's Bid" to "any Bid"

[18:5 24:3] Changed "supply 10-Minute NSR" to "supply 30-Minute Reserve"

[18:5 24:3] Changed "for 10-Minute NSR" to "for 30-Minute Reserve"

[23:3 24:4] Add Paras "Other Payments ... 4.3 Exceptions"

[21:7 24:7] Mvd Para "Notwithstanding ... Revised Sheet No. 150"

[21:7 24:7] Changed "First " to "Second "

[23:3 25:1] Add Paras "FERC Electric Tariff ... Sched. 4"

[22:3 25:3] Mvd Para "in any subsequent ... accepted by the ISO."

[23:3 25:4] Add Para "5.0 Failure to ... Operating Reserves"

[22:5 25:5] Mvd Para "If a Supplier reduces ... scheduled to provide."

[22:6 25:6] Mvd Para "If a Supplier scheduled ... Revised Sheet No. 151"

[22:6 25:6] Changed "price (or" to "price at its location (or"

[22:6 25:6] Changed "provide.New " to "provide at that location.New "

[23:3 26:1] Add Paras "FERC Electric Tariff ... Sched. 4"

[23:10 26:10] Changed "Original " to "First Revised "

[24:1 27:1] Changed "2" to "2 Superseding ... Sheet No. 152"

[24:6 27:6] Changed "Reserves. Customers" to "Reserves. ... Customers"

[24:6 27:7] Add Para "Alternatively, ... Reserves markets."

----- NOTE CHANGES -----

[1 1] Changed "Jane Lathrop, ... Affairs Manager " to "William J. ... President "

[1 1] Changed "May 31" to "November 1"

Issued by: William J. Museler, President
 Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

[1 1] Changed "June 15" to "September 7"

[1 2] Add Foots "Issued by: William ... issued May 31, 2000."

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -
original document : \\DCTEAM2\DCPU\DOCSOPEN\WASHINGT\08518\55430\000005\3_F@01!.DOC
and revised document: I:\DOCSOPEN\WASHINGT\08518\55430\000005\3_F@02!.DOC

CompareRite found 178 change(s) and 5 move(s) in the text

CompareRite found 4 change(s) in the notes

Deletions appear as Overstrike text

Additions appear as Bold+Dbf Underline text

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Energy Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

SCHEDULE 5

OPERATING RESERVE SERVICE

The ISO must offer this service when the Transmission Service is used to serve Load within the NYCA. The Transmission Customer must either purchase this service from the ISO or make alternative comparable arrangements to satisfy its Operating Reserve Service obligation. The amount of, and charges for, Operating Reserve Service are set forth below. The ISO shall establish the following Operating Reserves in accordance with the ISO Procedures and the Reliability Rules: (1) Spinning Reserve (10-Minute Synchronized Reserve); (ii) 10-Minute Non-Synchronized Reserve; and (iii) 30-Minute Reserve. The ISO shall maintain Operating Reserves in accordance with the ISO Procedures and the Reliability Rules. The ISO shall monitor the level of Operating Reserves utilizing the security monitoring program. Transmission Customers, Transmission Owners and Suppliers shall supply all data required for the proper operation of the security monitoring program.

The NYSRC shall establish the criteria for determining the required levels of Operating Reserves. The NYSRC shall be responsible to evaluate the adequacy of the criteria for determining the required level of Operating Reserves and shall modify such criteria from time to time as required. Operating Reserves are classified as follows:

- (1) Spinning Reserve: Operating Reserves provided by generation facilities and Interruptible

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Load Resources located within the NYCA that are already synchronized to the NYS Power System and can respond to instructions to change output level within ten (10) minutes;

- (2) 10-Minute Non-Synchronized Reserve (“10_Minute NSR”): Operating Reserves provided by generation facilities that can be started, synchronized and loaded within ten (10) minutes;

and

- (3) 30-Minute Reserve: Operating Reserves provided by generation facilities and Interruptible Load Resources that can respond to instructions to change output level within thirty (30) minutes.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

The ISO shall satisfy at least fifty (50) percent of the applicable 10-Minute Reserve requirements with Spinning Reserve. If the ISO satisfies all of the 10-Minute Reserve requirement through Spinning Reserve, it does not have to maintain 10-Minute NSR. The ISO shall establish additional categories of Operating Reserves if necessary to ensure reliability.

1.0 General Requirements

The ISO shall ensure that providers of Operating Reserves are properly located electrically so that transmission Constraints resulting from either commitment or dispatch of units do not limit the ability to deliver Energy to Loads in the case of a Contingency. The ISO will ensure that Capacity counted towards meeting Operating Reserve requirements is not also counted towards meeting Regulation and Frequency Response Service requirements.

2.0 Operating Reserves Charges

Each Transmission Customer engaging in an Export and each LSE shall pay a monthly Operating Reserves charge equal to the sum of the hourly charges for the month. The ISO shall calculate, and the LSE or Transmission Customer shall pay, the hourly charge equal to the product of (A) cost to the ISO of providing all Operating Reserves less any revenues from penalties collected during each hour and (B) the ratio of (i) the LSE's Load or the Transmission Customer's scheduled Export to (ii) the sum of all Load in the NYCA and all scheduled Exports during that hour. The cost to the ISO of providing Operating Reserves are described in Rate Schedule 4 of the ISO Services Tariff.

3.0 Self-Supply

Transmission Customers, including LSEs, may provide for Self-Supply of Operating Reserve by placing generation facilities supplying any one of the Operating Reserves under ISO

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

New York Independent System Operator, Inc.
FERC Electric Tariff No. 1
Sched. 5

Original **First Revised** Sheet No. 159
Superseding Original Sheet No. 159

Operational Control. The generation facilities must meet ISO rules for acceptability. The amount that any such customer will be charged for Operating Reserve **Reserves** Services will be reduced by the market value of the services provided by the specified generation facilities as determined in the ISO Services Tariff. **In addition, Transmission Customers, including LSEs, may enter into Day-Ahead Bilateral financial transactions, e.g., contracts-for-differences, in order to hedge against price volatility in the Operating Reserves markets.**

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

----- COMPARISON OF FOOTERS -----

-FOOTER 1-

Issued by: William J. Museler, President Effective: November 1, 2000

Issued on: September 8, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

----- REVISION LIST -----

The bracketed numbers refer to the Page and Paragraph for the start of the paragraph in both the old and the new documents.

[5:11 5:11] Changed "Original " to "First Revised "
[5:12 5:12] Changed "1" to "1 Superseding ... Sheet No. 159"
[5:14 5:14] Changed "Reserve " to "Reserves "
[5:14 5:14] Changed "Tariff." to "Tariff. In ... Reserves markets."

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.

This redlined draft, generated by CompareRite (TM) - The Instant Redliner, shows the differences between -
original document : \\DCTEAM2\DCPU\DOCSOPEN\WASHINGT\08518\55430\000005\3_\$\$01!.DOC
and revised document: I:\DOCSOPEN\WASHINGT\08518\55430\000005\3_\$\$02!.DOC

CompareRite found 4 change(s) in the text
CompareRite found 0 change(s) in the notes

Deletions appear as Overstrike text
Additions appear as Bold+Dbf Underline text

Issued by: William J. Museler, President
Issued on: September 8, 2000

Effective: November 1, 2000

Filed to comply with order of the Federal Regulatory Commission, Docket No. ER00-1969-000, issued May 31, 2000.