

SECTION III

MARKET RULE 1

APPENDIX C

**AUCTION REVENUE
RIGHTS AND
QUALIFIED
UPGRADE AWARDS**

Excepted Transaction which is an External Transaction sale, ARRs will be allocated pursuant to Section III.C.2.1.

III.C.2.1.1. Requesting Allocation of First Stage ARRs for Excepted Transactions. In order to be eligible to receive ARRs in association with an Excepted Transaction, each entity to which energy is delivered pursuant to an Excepted Transaction or which delivers energy pursuant to an Excepted Transaction must request that it be allocated ARRs pursuant to this Section III.C.2.1 and in accordance with the ISO New England Manuals and ISO New England Administrative Procedures prior to each FTR Auction.

III.C.2.1.2. Specification of First Stage ARRs for Excepted Transactions.

The first stage ARR Allocation to an entity serving load to which energy is delivered or making an External Transaction sale pursuant to an Excepted Transaction who makes such a request shall be equal to the number of megawatts of energy to be delivered to that customer under the Excepted Transaction. The origin Node(s) or External Node(s) for those ARRs shall match the generation source for any such Excepted Transaction and the destination Node(s) for those ARRs shall match the location: (i) of the load served by those Excepted

For each Long-Term Firm Through or Out Service reservation, a load equal to the number of megawatts of Reserved Capacity for such reservation shall be modeled at the appropriate External Node. The generator or tie line source and load associated with each Excepted Transaction shall be reduced by the MW quantity of the Excepted Transaction. The determination of the first stage ARR Allocation to Transmission Customers and Congestion Paying LSEs shall be performed using the following formula:

$$N_{ijt} = G_{it} * (L_{jt}/L_t),$$

where:

N_{ijt} = the amount of ARRs from Node or External Node i to Node or External Node j for the month being settled t ;

G_{it} = the total rated capacity for month t of generators or the capacity during month t of tie line capacity located at Node i ;

L_{jt} = the load at Node j from the network model used for the FTR Auction for month t , updated as appropriate, less any portion of that load which is associated with Excepted Transactions as described above; and

L_t = total load from the network model used for the FTR Auction for month t , updated as appropriate, less any portion of that load which is associated with all Excepted Transactions as described above.

The total quantity of ARRs assigned to load pursuant to this Section III.C.2.2 in month t shall be:

$$\sum_i \sum_j N_{ijt}$$

- Step 3: Through the following steps, eliminate ARRs having a negative value in the FTR Auction and then reduce the set of remaining ARRs defined in Step 1 proportionately on a per megawatt of constraint impact basis as necessary to arrive at a set of ARRs that is simultaneously feasible in a contingency constrained dispatch.
- 3(a): Identify all ARRs determined in Step 1 that receive a positive value (in \$/MW) in the FTR Auction.
 - 3(b): Test whether the ARRs identified in Step 3(a) are simultaneously feasible.
 - 3(c): If the ARRs identified in Step 3(a) are simultaneously feasible, go to Step 4.
 - 3(d): If the ARRs identified in Step 3(a) are not simultaneously feasible, calculate the pre- and post-contingency power flows associated with dispatching the system to honor the ARRs defined in Step 3(a).
 - 3(e): Identify the constraint whose relief would require the largest proportionate reduction in all of the ARRs defined in Step 3(a) that increase flows over that constraint. Reduce proportionately on a per megawatt of constraint impact basis all ARRs defined in Step 3(a) that increase flows over this constraint until the constraint is relieved.
 - 3(f): Test whether the ARRs identified in Step 3(e) are simultaneously feasible. If the set of ARRs defined in Step 3(e) is simultaneously feasible, proceed to Step 4.

- 3(g): Otherwise, calculate the pre- and post-contingency power flows associated with dispatching the system to honor the ARRs defined in Step 3(e).
- 3(h): Identify the constraint whose relief would require the largest proportionate reduction in all of the ARRs defined in Step 3(e) that increase flows over that constraint. Reduce proportionately on a per megawatt of constraint impact basis all ARRs defined in Step 3(e) that increase flows over this constraint until the constraint is relieved.
- 3(i) Repeat Steps 3(f) through 3(h) as necessary until a simultaneously feasible set of ARRs is obtained.
- 3(j) If as a result of the application of Steps 3(e) through 3(i) any of the constraints over which ARRs were reduced in Steps 3(e) through 3(i) is no longer binding, ARRs defined in Step 3(a) that have been reduced in Steps 3(e) through 3(i) and do not exacerbate any binding transmission constraint would be proportionately scaled up until a transmission constraint becomes binding.

The allocation process ends here if NEMA is not constrained and the ARRs allocated at the conclusion of Step 3(j) constitute the final allocation of ARRs.

- Step 4. The ARR Allocation determined in the preceding steps shall be divided into two sets: ARRs allocated to entities that are not NEMA LSEs, and ARRs allocated to NEMA LSEs.

III.C.4. Third Stage of ARR Allocation

III.C.4.1. In General.

The ARRs allocated to NEMA LSEs, as determined in the first two stages of each ARR Allocation, may be modified further in the third and fourth stages of the ARR Allocation. The third and fourth stages of any ARR Allocation shall not change the amount or origin Nodes or External Nodes or destination Nodes of any ARRs allocated to entities that are not NEMA LSEs as of the conclusion of the second stage of that ARR Allocation.

III.C.4.2. Definition of Stage 3 ARRs. For the purposes of this stage, a set of “Stage 3 ARRs” shall be defined as follows: Certain NEMA LSEs which have long-term purchase contracts in effect as of November 1, 1999 for generation resources with delivery points in NEMA, excluding long-term purchase contracts covered by Excepted Transactions, (“NEMA Contracts”) shall be allocated Stage 3 ARRs.

III.C.4.2.1. Verification of NEMA Contracts. The NEMA Contracts for these NEMA LSEs’ respective generation resources and entitlements, which entitle them to Stage 3

ARRs subject to verification that the NEMA Contracts meet the criteria specified in Section III.C.4.2, are listed in *Exhibit 1* to this Appendix C. Each NEMA LSE listed in *Exhibit 1* shall provide by October 1, 2000 to the ISO and shall make available upon request to each NEMA LSE, copies of its NEMA Contract(s) in the form that such contracts existed as of November 1, 1999, together with copies of any subsequent modifications or amendments, any notices of termination, and any notices or elections shortening the term or reducing the amount of power to be purchased under its NEMA Contract(s). For as long as a NEMA LSE listed in *Exhibit 1* has a right to request Stage 3 ARRs, it shall have an ongoing obligation to provide, in a timely manner, each NEMA LSE and the ISO with copies of any further modifications or amendments, any transfers to another entity of the responsibility for paying for the Congestion Cost any notices of termination, and any notices or elections shortening the term or reducing the amount of power to be purchased under its NEMA Contract.

III.C.4.2.2. Specification of Stage 3 ARRs. The amount of Stage 3 ARRs that will be allocated to each NEMA LSE shall be equal to the sum of the megawatts of entitlement specified in each NEMA LSE's NEMA Contract(s) calculated based on the winter capability

extensions which had not been exercised as of November 1, 1999, or until NEMA is no longer constrained. To the extent that such a NEMA LSE transfers to another entity the responsibility for paying for the Congestion Cost resulting from the NEMA LSE's NEMA Contract, the entity assuming such responsibility shall receive the entitlement to the NEMA LSE's Stage 3 ARRs in lieu of the NEMA LSE receiving that entitlement.

III.C.4.3. The Third Stage Allocation Procedure. The third stage of each ARR Allocation shall be performed using the following procedure, which will be adjusted on an annual and monthly basis to account for changes in available transmission capacity, load ratio shares, reductions in or resale of purchase amounts under NEMA Contracts, and the termination of the NEMA Contract(s) or expiration of the term of the NEMA Contract(s) in effect as of November 1, 1999, but excluding any optional extensions which had not been exercised as of November 1, 1999. The ISO shall make such adjustments in accordance with the allocation methodology described below, in the ISO New England Manuals and in the ISO New England Administrative Procedures.

Step 1: Begin with the set of all Stage 3 ARRs.

- Step 2: Through the following steps, eliminate Stage 3 ARRs having a negative value in the FTR Auction and then reduce the set of remaining Stage 3 ARRs proportionately on a per megawatt of constraint impact basis as necessary to arrive at a set of ARRs that is simultaneously feasible in a contingency constrained dispatch.
- 2(a): Identify all ARRs determined in Step 1 that receive a positive value (in \$/MW) in the FTR Auction. Then add the set of all non-NEMA ARRs as determined in Step 4 of Stage 2 to the remaining Stage 3 ARRs.
 - 2(b): Test whether the ARRs identified in Step 2(a) are simultaneously feasible.
 - 2(c): If the ARRs identified in Step 2(a) are simultaneously feasible, go to Step 3.
 - 2(d): If the ARRs identified in Step 2(a) are not simultaneously feasible, calculate the pre- and post-contingency power flows associated with dispatching the system to honor the ARRs defined in Step 2(a).
 - 2(e): Identify the constraint whose relief would require the largest proportionate reduction in all of the Stage 3 ARRs defined in Step 2(a) that increase flows over that constraint. Reduce proportionately on a per megawatt of constraint impact basis all Stage 3 ARRs defined in Step 2(a) that increase flows over this constraint until the constraint is relieved.
 - 2(f): Test whether the ARRs identified in Step 2(e) are simultaneously feasible. If the set of ARRs defined in Step 2(e) is simultaneously feasible, proceed to Step 3.

III.C.5. Fourth Stage of ARR Allocation Procedure

III.C.5.1. In General.

The fourth stage of the ARR Allocation shall determine the final allocation of ARRs for a given FTR Auction. The fourth stage shall only affect the allocation of ARRs to NEMA LSEs.

III.C.5.2. Definition of “Stage 4 ARRs”. For the purposes of this step, a set of “Stage 4 ARRs” shall be defined. The determination of the fourth stage ARR Allocation to NEMA LSEs shall be performed using the following formula:

$$N_{ijt} = A_{ijt} * X_{jt}$$

where:

N_{ijt} = the amount of Stage 4 ARRs from Node or External Node i to the load at NEMA Node j (from the network model used for the FTR Auction) for the month being settled t ;

A_{ijt} = the amount of ARRs from Node or External Node i to NEMA that had been allocated to the load at NEMA Node j for month t as of the conclusion of the second stage of the ARR Allocation; and

X_{jt} = the ratio of load at NEMA Node j from the network model used for the FTR Auction for month t , less any portion of that load which is

associated with NEMA Contracts as described above, to the total load at NEMA Node j from the network model used for the FTR Auction for month t .

III.C.5.3. The Fourth Stage Allocation Procedure. The fourth stage of each ARR Allocation shall be performed using the following procedure, which will be adjusted on an annual and monthly basis to account for changes in available transmission capacity, load ratio shares, reductions in purchase amounts under NEMA Contracts, and the termination of the NEMA Contract(s) or expiration of the term of the NEMA Contract(s) in effect as of November 1, 1999, but excluding any optional extensions which had not been exercised as of November 1, 1999. The ISO shall make such adjustments in accordance with the allocation methodology described below, in the ISO New England Manuals and in the ISO New England Administrative Procedures.

- Step 1: Begin with the set of all Stage 4 ARRs.
- Step 2: Through the following steps, eliminate Stage 4 ARRs having a negative value in the FTR Auction and then reduce the set of remaining Stage 4 ARRs proportionately on a per megawatt of constraint impact basis as necessary to arrive at a set of ARRs that is simultaneously feasible in a contingency constrained dispatch.

- 2(a): Identify all ARRs determined in Step 1 that receive a positive value (in \$/MW) in the FTR Auction. Then add the set of all non-NEMA ARRs and all ARRs for NEMA Contracts to the remaining Stage 4 ARRs.
- 2(b): Test whether the ARRs identified in Step 2(a) are simultaneously feasible.
- 2(c): If the ARRs identified in Step 2(a) are simultaneously feasible, go to Step 3.
- 2(d): If the ARRs identified in Step 2(a) are not simultaneously feasible, calculate the pre- and post-contingency power flows associated with dispatching the system to honor the ARRs defined in Step 2(a).
- 2(e): Identify the constraint whose relief would require the largest proportionate reduction in all of the Stage 4 ARRs defined in Step 2(a) that increase flows over that constraint. Reduce proportionately on a per megawatt of constraint impact basis all Stage 4 ARRs defined in Step 2(a) that increase flows over this constraint until the constraint is relieved.
- 2(f): Test whether the ARRs identified in Step 2(e) are simultaneously feasible. If the set of ARRs defined in Step 2(e) is simultaneously feasible, proceed to Step 3.
- 2(g): Otherwise, calculate the pre- and post-contingency power flows associated with dispatching the system to honor the ARRs defined in Step 2(e).

- 2(h): Identify the constraint whose relief would require the largest proportionate reduction in all of the Stage 4 ARRs defined in Step 2(e) that increase flows over that constraint. Reduce proportionately on a per megawatt of constraint impact basis all Stage 4 ARRs defined in Step 2(e) that increase flows over this constraint until the constraint is relieved.
- 2(i) Repeat Steps 2(f) through 2(h) as necessary until a simultaneously feasible set of ARRs is obtained.
- 2(j) If as a result of the application of Steps 2(e) through 2(i) any of the constraints over which ARRs were reduced in Steps 2(e) through 2(i) is no longer binding, ARRs defined in Step 2(a) that have been reduced in Steps 2(e) through 2(i) and do not exacerbate any binding transmission constraint would be proportionately scaled up until a transmission constraint becomes binding.

Step 3. The remaining ARRs constitute the final allocation of ARRs. Holders of ARRs in this allocation shall be deemed ARR Holders.

III.C.6. Distribution of FTR Auction Revenues

Each ARR Holder shall be entitled to receive a monthly share of the FTR Auction Revenues from each annual, monthly, or other FTR Auction reflecting the value in that auction of FTRs, other than those sold by FTR Holders, corresponding to its ARRs, whether or not such specific FTRs are actually sold. The determination of the FTRs awarded in each FTR Auction shall be subject to a simultaneous feasibility test in accordance with Section III.7 of Market Rule 1. The amount of feasible FTRs available in the FTR Auction (and the corresponding FTR Auction Revenues and payments to ARR Holders and entities eligible for Qualified Upgrade Awards) will vary depending on transmission system conditions as modeled. Entities eligible for Qualified Upgrade Awards, described in Section III.C.1, shall be entitled to receive a monthly share of the FTR Auction Revenues reflecting the incremental value, as determined in the auction, of additional FTRs made possible by such transmission upgrade.

Following the distribution of FTR Auction Revenues for Qualified Upgrade Awards, the ISO shall distribute the remaining monthly share of the FTR Auction Revenues as described below:

- Step 1: For a specified destination Node or External Node, the amount of ARR_s (quantified in megawatts) received in the final allocation of ARR_s with specified origin Nodes or External Nodes and such destination Node or External Node shall be multiplied by the difference in the clearing prices determined in that FTR Auction for the same origin Nodes or External Nodes and such destination Node or External Node as the ARR_s.
- Step 2: A dollar value shall be allocated to each Load Zone and to each External Node. The dollar value to be allocated to each Load Zone shall be calculated by summing Step 1 over all of the Nodes in the Load Zone.
- Step 3: The dollar value calculated in Step 2 for each Load Zone shall be distributed to each ARR Holder in the Load Zone. The dollar value calculated in Step 2 for each External Node shall be distributed to each ARR Holder at the External Node. The ARR Holder(s) at an External Node is the Transmission Customer taking Long-Term Firm Through or Out Service for which the Point of Delivery is that External Node. The distribution shall honor Excepted Transactions and NEMA Contracts, as appropriate. The remainder of the ARR Holder's distribution shall be in proportion to: (i) its Real-Time Load Obligation, excluding External Transaction sales, in the Load Zone at the time of the coincident peak for the New England Control Area for the month being settled less adjustments for Excepted Transactions and NEMA Contracts and (ii) its Reserved Capacity at the Point of Delivery (an External Node) for any Long-Term Firm Through or Out Service for which the ARR Holder is the Transmission Customer. Since the four-stage ARR Allocation process is not inherently revenue neutral, a proportional adjustment is applied to the auction revenue awards to distribute all available FTR Auction Revenues each month. The proportional adjustment is applied to ARR_s awarded in the four-stage ARR Allocation process only.

III.C.7. Monthly ARR Settlement

ARR Holders shall receive FTR Auction Revenues from FTRs sold in the monthly FTR Auctions. ARR Holders shall also receive a monthly share of the FTR Auction Revenues from FTRs sold in the annual (and long-term) FTR Auctions. Such monthly share shall recognize Qualified Upgrade Awards, Excepted Transactions, NEMA Contracts, the ARR Holder's Real-Time Load Obligation excluding External Transactions sales at the time of the coincident peak for the New England Control Area for the month being settled and the ARR Holder's Reserved Capacity at the Point of Delivery (an External Node) for any Long-Term Firm Through or Out Service for which the ARR Holder is the Transmission Customer as described in Section III.C.6.

III.C.8. Qualified Upgrade Awards

An entity who pays for transmission upgrades which increase transfer capability on the New England Transmission System, making it possible for the ISO to award additional FTRs in the FTR Auction, shall be awarded Qualified Upgrade Awards. Such transmission upgrades initially placed in-service on or after March 1, 1997 may qualify for Qualified Upgrade Awards. The amount of the award to such an entity shall be consistent with the incremental revenues resulting from the FTRs awarded in an FTR Auction that were made possible by the transmission upgrade, respecting the order of service and study priority established through the Transmission, Markets and Services Tariff and ISO New England System Rules. The Transmission, Markets and Services Tariff and ISO New England System Rules establish an order of both: (i) transmission upgrades eligible for Qualified Upgrade Awards; and (ii) transmission upgrades paid for through the Pool PTF Rate. To the extent that transmission upgrades resulting in new transfer capability are paid for through the Pool PTF Rate, any ARR associated with the sale of FTRs made possible by such upgrades, other than FTRs sold by FTR Holders, shall be allocated to Transmission Customers and Congestion Paying LSEs in the four-stage ARR Allocation process.

An entity who pays for transmission upgrades, initially placed in-service on or after March 1, 2003, and who requests Qualified Upgrade Awards, in accordance with the ISO New England Manuals and ISO New England Administrative Procedures, will be responsible for the cost of any study required to determine such Qualified Upgrade Awards.

Qualified Upgrade Awards shall continue for so long as the entity supports the costs of the upgrade (either through up front support payments or periodic installments) or for the life of the upgrade (such as in the case where the upgrade is supplanted by a prior-planned, but subsequently installed, upgrade), if shorter.

By December 31, 2004, the ISO will develop a permanent process to replace the Qualified Upgrade Award process. The Qualified Upgrade Award process shall continue until the permanent process is implemented.

EXHIBIT 1

NEMA CONTRACTS

<u>NEMA Load-Serving Entity</u>	<u>NEMA Contract Entitlements¹</u>
Danvers	<ol style="list-style-type: none">1. Millstone 3 (0.263%)2. Seabrook (1.112%)3. Stony Brook Combined Cycle (8.457%)4. Stony Brook 2A (11.555%)5. Stony Brook 2B (11.555%)6. Vermont Yankee (1.080 MW)7. Hydro Quebec (2.930 MW (winter))8. NYPA (2.440 MW)
Georgetown	<ol style="list-style-type: none">1. Millstone 3 (0.021%)2. Seabrook (0.096%)3. Stony Brook Combined Cycle (0.736%)4. Stony Brook 2A (1.014%)5. Stony Brook 2B (1.014%)6. Vermont Yankee (0.144 MW)

¹ NEMA Contract entitlements are stated by percentage in the case of unit entitlements held on percentage basis, and by megawatts where contract states entitlement in megawatts.

7. System Power (Select Energy) (2.0 MW)
8. Hydro Quebec (0.280 MW (winter))
9. NYPA (0.620 MW)

Ipswich

1. Millstone 3 (0.061%)
2. Seabrook (0.107%)
3. Stony Brook Combined Cycle (0.293%)
4. Vermont Yankee (0.522 MW)
5. NYPA (1.350 MW)

Marblehead

1. Millstone 3 (0.154%)
2. Seabrook (0.135%)
3. Stony Brook Combined Cycle (2.684%)
4. Stony Brook 2A (1.598%)
5. Stony Brook 2B (1.598%)
6. Wyman 4 (0.279%)
7. Vermont Yankee (0.655 MW)
8. Hydro Quebec (1.040 MW (winter))
9. NYPA (2.140 MW)

Middleton

1. Millstone 3 (.044%)
2. Seabrook (0.328%)
3. Stony Brook Combined Cycle (0.878%)
4. Stony Brook 2A (1.892%)
5. Stony Brook 2B (1.892%)
6. Wyman 4 (0.101%)
7. Vermont Yankee (0.213%)
8. System Power (NU 10.000 MW, PGET 0.500 MW)
9. Hydro Quebec (0.580 MW (winter))
10. NYPA (0.600 MW)

Peabody	<ol style="list-style-type: none">1. Millstone 3 (0.297%)2. Seabrook (1.130%)3. Stony Brook Combined Cycle (13.052%)4. Vermont Yankee (1.693 MW)5. Hydro Quebec (3.480 MW (winter))6. NYPA (4.860 MW)
Reading	<ol style="list-style-type: none">1. Millstone 3 (0.404%)2. Seabrook (0.635%)3. Stony Brook Combined Cycle (14.453%)4. Stony Brook 2A (19.516%)5. Stony Brook 2B (19.516%)6. System Power (NU) (15 MW)7. Hydro Quebec (5.710 MW (winter))
Wakefield	<ol style="list-style-type: none">1. Millstone 3 (0.206%)2. Seabrook (0.387%)3. Stony Brook (3.993%)4. Stony Brook 2A (6.379%)5. Stony Brook 2B (6.379%)6. Wyman 4 (0.440%)7. Vermont Yankee (0.885 MW)8. Hydro Quebec (1.520 MW (winter))9. NYPA (2.230 MW)
Concord	<ol style="list-style-type: none">1. Hydro Quebec (0.890 MW (winter))
Groveland	<ol style="list-style-type: none">1. System Power (NU) (6.100 MW)2. NYPA (0.510 MW)

Merrimac	<ol style="list-style-type: none">1. System Power (NU) (4.900 MW)2. NYPA (0.520 MW)
Rowley	<ol style="list-style-type: none">1. System Power (NU) (6.700 MW)2. Hydro Quebec (0.200 MW (winter))3. NYPA (0.510 MW)

Sheet Nos. 7732 through 7799 are reserved for future use.