

Appendix B - Scheduling Reductions and Curtailments of Real-Time External Transactions

Effective Date: May 24, 2023

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A. Scheduling Reductions Under Ramp Constraints

If a ramp constraint exists that must be mitigated during the scheduling process, the following rules shall apply:

1. Reductions to eliminate the ramp constraint will be made to External Transactions on all selected external interfaces simultaneously using the same methodology.
2. Transactions helping the ramp constraint will be excluded from the ramp constraint evaluation. Therefore, External Transactions flowing in the opposite direction of the ramp constraint will be excluded from the ramp constraint evaluation. In addition, External Transactions flowing in the same direction as the ramp constraint but that have a MW value that is changing in the opposite direction of the ramp constraint will continue to be scheduled (e.g., an import transaction is changing from 100 MW to 50 MW during an import ramp constraint).
3. Wheel-through transactions will be excluded from the ramp constraint evaluation.
4. All External Transactions will be categorized into one or two of the four groups described below:
 - Group 1: External Transactions submitted only into the Real-Time Energy Market and whose schedule is directly impacting the ramp constraint (e.g., an import transaction is changing from 0 MW to 150 MW during an import ramp constraint).
 - Group 2: External Transactions submitted only into the Real-Time Energy Market and whose schedule is not changing during the time of the ramp constraint.
 - Group 3: External Transactions that have cleared in the Day-Ahead Energy Market, have a corresponding transaction submitted into the Real-Time Energy Market under the same transaction identifier and whose schedule is directly impacting the ramp constraint (e.g., an import transaction is changing from 0 MW to 150 MW during an import ramp constraint).
 - Group 4: External Transactions that have cleared in the Day-Ahead Energy Market, have a corresponding transaction submitted into the Real-Time Energy Market under the same transaction identifier and whose schedule is not changing during the time of the ramp constraint.
5. The scheduling under the ramp constraint will occur as described below:
 - a) A single External Transaction can have MW in one or two of the groups described above (e.g., an External Transactions that is submitted only into the Real-Time Energy Market

whose schedule is changing from 100 MW to 150 MW would have 50 MW in Group 1 and 100 MW in Group 2).

- b) Reductions will be made to Group 1 first, Group 2 second, Group 3 third and then to Group 4. All the MW from External Transactions within one group will be reduced to zero MW before utilizing any MW from a subsequent group.
- c) If only a portion of the MW within a group are required to resolve the ramp constraint, the evaluation of all External Transactions within that group to determine which transactions are reduced shall be made in a manner consistent with the normal scheduling rules – economics, priority and timestamp.

B. Scheduling Reductions and Curtailments Related to A Minimum Generation Emergency

1. When scheduling reductions or curtailments are required on import External Transactions submitted under III.1.10.7A that would create or worsen a Minimum Generation Emergency, the External Transactions will be impacted on the basis of economic merit order, where a tie in economics will be reduced on a pro-rata basis.
2. When scheduling reductions or curtailment are required on import External Transactions submitted under III.1.10.7 that would create or worsen a Minimum Generation Emergency the following rules will be applied:
 - a) If a Minimum Generation Emergency Warning has been issued and a reduction is required to Real-Time Energy Market External Transactions that have not also cleared the Day-Ahead Energy Market, the reduction to that group of transactions shall first consider price where the most expensive transactions are reduced first. If there is a tie in price, the transaction priority shall be used as the tiebreaker where those with the lowest priority are reduced first. If there is a tie in transaction priority, the Real-Time Energy Market timestamp of the transaction shall be used as the tiebreaker, where the most recent submittals are reduced first.
 - b) If a Minimum Generation Emergency has been declared and after reductions have been made to transactions not cleared in the Day-Ahead Energy Market, if a reduction is then required to Real-Time Energy Market External Transactions that have cleared the Day-Ahead Energy Market, the reduction to that group of transactions shall first consider price. However, the price associated with all Real-Time Energy Market External Transactions that have cleared the Day-Ahead Energy Market are equal and the transaction priority shall be used as the tiebreaker, where those with the lowest priority are reduced first. If there is a tie in transaction priority, the Real-Time Energy Market timestamp of the transaction shall be used as the tiebreaker where the most recent submittals are reduced first.

C. Scheduling Reductions and Curtailments Related to Capacity Deficient Conditions

1. When scheduling reductions or curtailments are required on export External Transactions submitted under III.1.10.7A that would create or worsen a capacity deficient condition, the External Transactions will be reduced on the basis of economic merit order, where a tie in economics will be reduced on a pro-rata basis.

2. When scheduling reductions or curtailments are required on export External Transactions submitted under III.1.10.7 that would create or worsen a capacity deficient condition for the overall New England RCA/BAA the following rules will be applied.
 - a) Export External Transactions with the Special Exception Non-CSO Export that satisfy III.1.10.7(i) will be excluded from this process:
 - b) If a reduction is required to Real-Time Energy Market External Transactions that have not cleared the Day-Ahead Energy Market, the reduction to that group of transactions shall first consider price where the least expensive transactions are reduced first. If there is a tie in price, the transaction priority shall be used as the tiebreaker where those with the lowest priority are reduced first. If there is a tie in transaction priority, the Real-Time Energy Market timestamp of the transaction shall be used as the tiebreaker where the most recent submittals are reduced first.
 - c) If OP-4 has been declared and after reductions have been made to transactions that did not clear the Day-Ahead Energy Market, if a reduction is then required to Real-Time Energy Market External Transactions that have cleared the Day-Ahead Energy Market, the reduction to that group of transactions shall first consider price. However, if the price associated with all Real-Time Energy Market External Transactions that have cleared the Day-Ahead Energy Market are equal, the transaction priority shall be used as the tiebreaker, where those with the lowest priority are reduced first. If there is a tie in transaction priority, the Real-Time Energy Market timestamp of the transaction shall be used as the tiebreaker where the most recent submittals are reduced first.

D. Listing of Transaction Priorities

This section of the Appendix lists transaction priorities from lowest to highest. In general, the transaction priority is derived from the associated Transmission Service.

Lowest Transaction Priority		
NERC # PRIORITY	DESCRIPTION	NERC ABBRV
*0		NX
1	Transactions scheduled against Secondary Point-to-Point Transmission Service	NS
2	Transactions scheduled against Hourly Non-Firm Point-to-Point Transmission Service	NH
3	Transactions scheduled against Daily Non-Firm Point-to-Point Transmission Service	ND
4	Transactions scheduled against Weekly Non-Firm Point-to-Point Transmission Services	NW
5	Transactions scheduled against Monthly Non-Firm Point-to-Point Transmission Services.	NM
*6		NN
7	Transactions scheduled against the following types of Firm Transmission Service: <ul style="list-style-type: none"> • Regional Network Service • Excepted Transactions with Firm status under OATT • Firm Point-to-Point Transmission Service All types of Firm transmission service have equal transaction priority.	FN F F
**8	Transactions submitted in accordance with Section II.44(a) of the Tariff	
HIGHEST TRANSACTION PRIORITY		

* = ISO does not use NERC PRIORITY 0 (NX), and NERC PRIORITY 6 (NN)

** = ISO PRIORITY # = NERC PRIORITY

OP 9 Appendix B Revision History

Document History (This Document History documents action taken on the equivalent NEPOOL Procedure prior to the RTO Operations Date as well as revisions made to the ISO New England Procedure subsequent to the RTO Operations Date.)

Rev. No.	Date	Reason
Rev 1	02/01/05	Updated to conform to RTO terminology
Rev 2	05/27/05	Revised to include requirements for fully and partially de-listed resources
Rev 3	04/13/07	Revised to include the next hours scheduling under ramp constraints
Rev 4	06/03/08	Annual Review by Procedure Owner. Revised to include the changes in OATT and Market Rules related to transactions clearing the Day-Ahead Energy Market having some priority in the Real-Time Energy Market
Rev 5	10/01/08	Various parts: The use of Next-Hour and In-hour were replaced with reference to scheduling intervals to be clear that transactions can be scheduled more frequently than once an hour
Rev 6	06/04/10	Biennial review by procedure owner; Conforming changes for the Forward Capacity Market
Rev 6.1	03/19/15	Periodic review performed by procedure owner, requiring no changes; Made administrative changes required to publish a Minor Revision;
Rev 7	12/14/15	Removed sections that are duplicative of OATT language; Combined scheduling and curtailment sections for Minimum Generation and Reserve Capacity conditions; Added provisions for External Transactions submitted under III.1.10.7A; Changed pagination to X of Y format;
Rev 7.1	10/26/17	Periodic review of the document has been performed and no changes are required; Made administrative modifications required to publish a Minor Revision (added required corporate document identity to all page footers);
Rev 7.2	08/02/19	Periodic review performed by procedure owner, requiring no changes; Made administrative changes required to publish a Minor Revision;
Rev 8	05/27/21	Periodic review performed by procedure owner Added the missing word 'curtailment' to C.1 and C.2
Rev 8.1	05/24/23	Biennial review performed by procedure owner requiring no intent changes; Minor grammatical edits; Made administrative changes needed to publish a Minor Revision.