	© ISO New England Inc., 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
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SOP-RTMKTS.0090.0010


Schedule Next-Hour External Transactions

Contents


1.	Objective	3
2.	Background	3
3.	Responsibilities.....	4
4.	Controls	5
5.	Instructions.....	6
5.1	Schedule Update for Next Hour.....	6
5.1.1	Calculate Next-Hour External Transaction Interchange	6
5.1.2	Schedule Confirmation with each Adjacent RC/BA	15
5.1.3	Evaluate Excess Hourly Ramp.....	17
5.1.4	Perform Excess Hourly Ramp Cuts	18
5.1.5	Finalize Scheduling Next-Hour External Transactions	20
5.1.6	Scheduled Next-Hour External Transaction Ramping Verification	21
5.2	Schedule During Minimum Generation Emergency Warning Condition	22
5.3	Schedule During Minimum Generation Emergency Conditions.....	24
5.4	Schedule Security Energy Transactions (SETs).....	25
5.5	Pre-OP-4 Curtailment of RT Only MWs.....	28
5.6	Schedule During OP-4 Conditions.....	30
5.7	Schedule Reliability Loop Flow on the NNC	32
5.8	Communications.....	33
5.9	Loss of Adjacent RC/BA Schedule Software	33

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	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
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	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

6. Performance Measures.....	34
7. References.....	34
8. Revision History.....	35
9. Attachments	41
Attachment A - Scheduling Priority.....	42
Attachment B - Minimum Generation Emergency Scheduling Priority	44
Attachment C - OP- 4 Scheduling Priority	45
Attachment D - Retired (12/08/10)	46

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

1. Objective

The intent of this procedure is to finalize the schedule for External Transactions across each external interface for the next hour. This procedure documents the responsibilities of the ISO New England (ISO) staff.

This procedure documents the process of finalizing the External Transaction schedule for the next hour, and resolution of excess ramping conditions. Compliance with this procedure is necessary to ensure reliable and cost-effective operation of the power system for Market Participants and others.

2. Background


The submittal and dispatch of External Transactions are governed by;

- ISO New England - ISO New England Inc. Transmission, Markets and Services Tariff Section III, ISO New England Market Rule 1 - Standard Market Design (Market Rule 1)
- ISO New England Manual for Market Operations, Manual M-11 (Manual 11)
- ISO New England Operating Procedure No. 9 - Scheduling and Dispatch of External Transactions (OP-9).

External Transactions can be scheduled to flow over any of the Inter Area interfaces:

- New York Northern AC Ties (NYN)
- New York Cross Sound Cable (CSC)
- Northport to Norwalk Harbor Cable (NNC)
- New Brunswick to New England (NB-NE)
- Hydro Quebec (HQ) - Phase II
- HQ - Highgate.

Total Transfer Capability (TTC) is calculated in accordance with SOP-OUTSCH.0030.0020 - Perform Short Term Outage Coordination for each interface, which establishes the maximum amount of power that can be transferred reliably across an external interface under the anticipated system conditions and in accordance with North American Electric Reliability Corporation (NERC), Northeast Power Coordinating Council, Inc. (NPCC) and ISO operating criteria. During recoveries from reportable events in the ISO New England Reliability Coordinator Area/Balancing Authority Area (RCA/BAA), up to 200 MW of simultaneous activation of ten-minute reserve (SAR) can be scheduled above the NYN "TTC In" MW value.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


Market Participants enter External Transactions into the Market System by 12 noon the day before, with the exception of Real-Time Fixed Transactions, Security Energy Transactions (SETs), and Emergency Energy Transactions (EET), which can entered up to 60 minutes prior to the start of the current day dispatch hour.

3. Responsibilities

NOTE


Any NERC Certified Control Room System Operator, certified at the RC level, has the authority to take action(s) required to comply with NERC Reliability Standards.

1. The Generation Operator is responsible for
 - A. Performing this procedure hourly.
 - B. Notifying the Senior Operator when the schedules are transferred to the IFS page and the Net Tie Change for the hour.
2. The Short-Term Outage Coordination Group is responsible for providing the TTC for each interface.
3. The Security Operator is responsible for providing updated limits to the TTC based on real time system conditions.
4. The Loader Operator is responsible for updating the Pool Control Error Calculator (PCEC).
5. The Senior Operator is responsible for:
 - A. Verifying the correct schedules have been transferred to the IFS page from the Interchange Scheduling software
 - B. Notifying the Generation Operator the verification has been completed and whether or not further action is required.
6. The TSO Administrator is responsible for informing the Generation Operator of any kind of discrepancy discovered during the current hour using the In-Hour Active tag check.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

4. Controls

- The following NERC Reliability Standards require ISO to maintain ninety (90) days of historical data:
 - INT-003 - Interchange Transaction Implementation (as the Balancing Authority)
 - INT-005 - Interchange Authority Distributes Arranged Interchange (as the Interchange Authority)
 - INT-008 - Interchange Authority Distributes Status (as the Interchange Authority)
- ISO procedure RSKMGT.0020.0010, Appendix 2, ISO-NE Record Retention Schedule requires maintaining data for six (6) years.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5. Instructions

5.1 Schedule Update for Next Hour

5.1.1 Calculate Next-Hour External Transaction Interchange

1. The Generation Operator shall verify the TTC for each external interface with each adjacent Reliability Coordinator/Balancing Authority (RC/BA) and if the TTC has changed for any of the following reasons, shall revise the TTC value in the Interchange Scheduling software:

NOTE

When a facility is physically out-of-service and has a TTC of zero (0) in both the import and export directions, counter flow External Transactions are **NOT** allowed to flow.


NOTE

The revised TTC can be lower than the value in the Interchange Scheduling software, but do not raise the TTC above the Interchange Scheduling software value, unless the TTC reduction resulted from a transmission outage and the transmission application that imposed the restriction is complete.

NOTE

When a local area capacity deficient condition occurs or is projected and External Transactions labeled “CT Backed Exp” on the “Control Room Hourly Detail” display in the Interchange Scheduling software are present within that local area (meeting the criteria for exports backed as defined in MR1 III.1.10.7(f)i,ii or iii), OP-4 Actions up to and including the activation of Real-Time Demand Response shall be considered prior to curtailing these External Transactions.

- A. TTC has changed due to determination performed in SOP-OUTSCH.0030.0020 - Perform Short Term Outage Coordination
- B. TTC has changed due to reliability concerns of another RC/BA
- C. TTC has changed due to Real-Time conditions on the New England system


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

Real-Time Locational Marginal Prices (LMPs) can be found on the ISO New England external Web site and labeled “LMP Map”. When using this data as a reference, be sure to check the date and time, and ensure that the information is updating. The external node Location Names to external interfaces is as follows:

- .I.SALBRYNB345 1 NB/NE ties
- .I.ROSETON 345 1 NY Northern AC ties
- .I.NRTHPORT 138 5 NNC
- .I.HQ_P1_P22345 5 HQ/NE Phase 2
- .I.HQHIGHGATE120 2 HQ/NE Highgate
- .I.SHOREHAM 138 99 NY/NE Cross Sound Cable

2. The Generation Operator shall use the Current Operating Plan (COP) and Real-Time pricing information to determine the anticipated LMP at each external node for the next hour.
3. If the Generation Operator decides to use the COP LMP, the Generation Operator shall verify the LMPs in the Interchange Scheduling software correlate to the most recent COP prior to use.
4. If the Generation Operator determines that the forecasted nodal price for the subject interface is incorrect, the Generator Operator shall change the price to a value that is based upon anticipated conditions for the next hour by analyzing the following information:
 - A. The real-time LMPs for the particular interface from the LMP Map
 - B. The Operator Information System (OIS) Energy_Supply_Time_Curve and Destacker_To_EnergyMin

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
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	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE


Attachment A - Scheduling Priority, describes the scheduling priority that the Interchange Scheduling software uses.

5. The Generation Operator shall run the Interchange Scheduling software for the next hour to schedule in-rate dispatchable and Self-Schedule (SS) External Transactions.

NOTE

Price Tie example: If 500 MW of dispatchable imports (five (5) External Transactions for 100 MW @ \$85 per MW) are scheduled on HQ Phase II and scheduling all 500 MW will depress the LMP at the Phase II node, using the Price Tie algorithm will allow the operator to schedule the proper amount of MW that will be in rate based on the SCRA and Energy Supply Time curve.

6. In the event of a price tie and either a partial import or export dispatchable External Transaction needs to be curtailed, the Generation Operator shall perform the following to schedule the partial dispatchable External Transactions based on price and priority:
 - A. After running the Interchange Scheduling software utilizing an appropriate LMP, select the “Price Tie” button in the Interchange Scheduling software for the given interface.
 - B. Select the appropriate interfaces.
 - C. Select the “Cut Direction” (Default assumes an Import External Transaction is being curtailed, if curtailments in Export External Transactions are desired “Export” must be selected.)
 - D. Verify the reason code selected is “Economics”.
 - E. Enter the number of MW to be curtailed in the “Cut MW” field, not to exceed the MW value for the price block.
 - F. Click on the “Cut” button and verify the curtailment is made with the External Transaction(s) and MW values displayed.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

If there is more than one External Transaction with a priority of 7, the curtailments may be made “pro-rata” to the affected External Transactions. The term “pro-rata” is defined in Attachment A.

If more MWs were entered than are available in the highest price block, a warning message will be presented, and no cuts will be made.

- G. Click on the “OK” button in the “Price Tie” screen and verify the results of the algorithm is transferred to the “Control Room Hourly Detail” page with the corresponding reason.
- 7. The Generation Operator shall identify any External Transactions not scheduled by both ISO and the adjacent RC/BA for the next hour.
 - A. For External Transactions that would have been scheduled by ISO, but were not scheduled by the adjacent RC/BA, perform the following:
 - (1) Remove the External Transaction from the schedule.
 - (2) Enter a Note in the Interchange Scheduling software stating the External Transaction has been removed and the specific reason for removal.
- 8. Do not schedule Phase II in excess of the “Lowest Limit” as displayed on the Single Source Contingency (SSCM) page in the Energy Management System (EMS).
- 9. If Phase II schedule change is expected to exceed 1,200 MW contact NYISO System Operators for permission to use margin on their system.
- 10. If the Phase II schedule is expected to exceed the PJM base limit (usually 1,400 MW) contact PJM System Operators to obtain permission to utilize margin on their system.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

Phase II and Highgate have minimum flow requirements.

Phase II minimum flow = 105 MW Mono-polar, 210 MW Bi-polar


Highgate minimum flow = 20 MW

When there are both import and export External Transactions scheduled with an adjacent RC/BA and the total is below the minimum flow limit and greater than 0, the minimum amount of External Transactions should be curtailed to either get to 0 or the interface minimum flow limit.

If an interface schedule is violating a minimum flow requirement, a warning pop up message stating “Warning: Interface Min Flow is Violated” will appear when the appropriate interface is selected in the Interchange Scheduling software.

11. If an interface is violating minimum flow requirement, the Generation Operator shall:
 - A. Click on the “Minimum Flow” button for the interface.
 - B. For Phase II, select the following applicable Operation Mode:
 - (1) Mono-Polar
 - (2) Bi-Polar
 - C. Click on the “Run” button.
 - D. If the new schedule is appropriate, click on the “OK” button located on the “Minimum Flow” screen and verify the results of the algorithm are transferred to the “Control Room Hourly Detail” page.

12. If an out of merit External Transaction needs to be scheduled for 1st or 2nd Contingency reliability reasons, the Generation Operator shall perform the following:
 - A. Increase the LMP value on the associated interface until the out of merit External Transaction is in-rate.
 - (1) When changing the LMP, select the reason code: “Manual adjust of RT LMP”
 - (2) In the “Additional Reason” section, enter the specific reason the out of merit External Transaction is necessary.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

- B. If an out of merit External Transaction is required on a specific interface and after running the scheduling algorithm for all interfaces, the External Transactions are inadvertently modified on other interfaces, perform the following:
- (1) Manually place the MW value in the “Sched MW” block
 - (2) Select the reason code “Take OOM”.

NOTE

Only those Out of Merit External Transactions taken for a 2nd Contingency will be documented in order for Settlements to apply the appropriate charges to the impacted Reliability Region/Load zone.

13. If an Out of Merit External Transaction is scheduled for 2nd Contingency reliability reasons, the Generation Operator shall:
- A. Email the “Market Admin Grp” listing, and include the following information:
 - (1) HE
 - (2) ISO Contract ID
 - (3) Reason (e.g., N-2 criteria)
 - (4) Reliability Region
 - B. Every hour that the LMP is adjusted to schedule Out of Merit External Transactions, make an entry containing the above information in the Control Room Event Logserver.
14. When instructed by the Operations Shift Supervisor to schedule a bilateral inadvertent External Transaction, the Generation Operator shall perform the following:
- A. Verify the bilateral inadvertent External Transaction does not exceed 50 MW/hr for all interfaces except CSC and Highgate, which shall be limited to 10 MW/hr.
 - B. Verify the bilateral inadvertent External Transaction does not prevent a Market Participant transaction from being scheduled.
 - C. Verify the bilateral inadvertent External Transaction does not create or worsen congestion with economic dispatch or reserve pricing.
 - D. Verify the affected RC/BA is in agreement with the bilateral inadvertent External Transaction, including MW amount and duration of time.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

- E. Instruct the TSO Administrator to create a bilateral inadvertent External Transaction NERC tag that includes the MW amount and duration of time agreed to by the adjacent RC/BA.
- F. The Generation Operator shall manually enter the MW value agreed to by adjacent RC/BA in the “Inadvertent” field of the Interchange Scheduling software.

NOTE

The actions in following step only apply to Phase II, Highgate, NNC and CSC. NB maintains their own inadvertent “energy” account. NY AC tie inadvertent is maintained in the EMS with the value derived from the OPS Engineer..

- 15. When instructed by the Operations Shift Supervisor to schedule unilateral inadvertent energy payback, the Generation Operator shall:
 - A. Verify the unilateral inadvertent energy does not exceed 50 MW/hr for all interfaces
 - (1) Exceptions are that CSC and Highgate shall not exceed 10 MW/hr
 - B. Verify the unilateral inadvertent energy shall not prevent a Market Participant External Transaction from being scheduled.
 - C. Verify the unilateral inadvertent energy does not create or worsen congestion with economic dispatch or reserve pricing.
 - D. Verify the following conditions are met:
 - (1) When approaching or in Minimum Generation Emergency Conditions, unilateral inadvertent energy will **NOT** be paid back to New England.
 - (2) When approaching or in OP-4 conditions, unilateral inadvertent energy will **NOT** be paid back to an external RCA/BAA
 - E. Verify the applicable minimum converter schedules are met.
 - F. Verify the inadvertent energy payback will not aggravate Excess Hourly Ramps.
 - G. Verify the affected RC/BA is in agreement with the unilateral inadvertent energy payback, including MW amount and expected duration.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

H. Manually add/subtract the amount of unilateral inadvertent energy from the appropriate interface and make the appropriate entry into the IFS page.

Example: It is desired to receive 50 MW of inadvertent energy from HQ. The agreed upon schedule will be 1,000 MW, but the IFS page will reflect the schedule adjusted for losses plus the 50 MW of inadvertent (i.e., “1050 + Loss adjustment”).

NOTE


NYISO requires 90 minutes notice to restore de-rated External Transactions.

16. If NYISO de-rates an External Transaction backing Import Capacity Resources for any hours of the operating day, the Generation Operator assisted by the TSO Administrator shall perform the following applicable action:
- A. If either of the following conditions exist, notify NYISO to restore the External Transactions for the hours:
 - There is a Day Ahead commitment for the External Transaction(s).
 - ISO expects the External Transaction(s) will be necessary to mitigate a capacity deficiency.
 - B. For all other conditions, follow the process specified in section 5.1.1.5.

NOTE

Prior to scheduling out of rate dispatchable External Transactions to meet New England reserve requirements, the economic surplus MWs are to be converted to operating reserve and all RT Only transaction sales are to be curtailed.

17. If the resultant net interchange schedule leaves the New England Reliability Coordinator Area/Balancing Authority Area (RCA/BAA) deficient in 30 minute operating reserve and previously out of rate dispatchable purchases are available, the Generator Operator shall perform the following:
- A. Inform the Operations Shift Supervisor
 - B. Adjust the LMP(s) data field in the Interchange Scheduling software as necessary to allow these External Transactions to be scheduled.
 - C. Utilize the “Price Tie” feature described above if necessary.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

18. If Emergency Energy Transactions (EETs) need to be scheduled and dispatched the Generation Operator shall take the appropriate actions of SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action.

NOTE

A change to a Local Second Contingency Commitment (LSCC) Export can occur on either the CSC or NNC interfaces.

19. If in any hour a notification message of a change to a Local Second Contingency Commitment (LSCC) appears in the Interchange Scheduling software, the Generation Operator shall perform the following:
- A. Sum the MW total of CSC transactions labeled “Non-CSO/LSCC” identified with an orange background in the “Special Exception” column of the Interchange Scheduling software.
 - B. Provide the summed MW amount of the transactions labeled “Non-CSO/LSCC” (CETICZ) to the Security Operator for entry into CT DOUBLC at the the scheduled ramp start time as described in SOP-RTMKTS.0060.0020-Monitor System Security.
20. When the CSC Non-CSO/LSCC (CETICZ) external transactions are ending in the Interchange Scheduling software, the Generation Operator shall inform the Security Operator to enter a zero value in CT DOUBLC at the scheduled ramp start time.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.1.2. Schedule Confirmation with each Adjacent RC/BA

NOTE


The following steps shall be performed even if the scheduled External Transactions have not changed from the previous hour.

1. The Generation Operator shall contact each adjacent RC/BA and verify the External Transaction schedule in the Interchange Scheduling software for the next hour is in agreement with the NERC Tag IDs and MW amounts.
2. The Generation Operator shall set ramp start time and duration with each adjacent RC/BA.
3. The Generations Operator shall perform the following:
 - A. Every hour, regardless of change, communicate all schedules to the appropriate adjacent RC/BA; this will ensure the source BA MW amount equals the sink BA MW amount.
 - (1) Contact and reach agreement with HQ on both the scheduled MW amount and the delivered MW amount for Phase II and Highgate.
 - (2) When dealing with HQ Phase II schedule changes:
 - a. For cases with schedule changes >20 MW, verify HQ moves Phase II to match the schedule.
 - b. For cases with schedule changes that are ≤ 20 MW, Phase II movement is not required, verify the “IFS” page reflects the Phase II schedule in the Interchange Scheduling software.

NOTE

The Generation Operator shall observe binding constraints when determining the amount of available SAR. ISO will not back down generation to allow another RC/BA to participate in SAR.

4. During the hourly checkout the Generation Operator shall notify NYISO of ISO’s RCA/BAA and NBSO’s RCA/BAA ability to provide/receive SAR based on the schedule vs. TTC limit for the upcoming hour.
 - A. The Generator Operator determination of the ability to provide SAR shall be based upon the “TTC out” MW limit supplied by the Security Operator, up to a maximum of 1200 MW.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

SAR will be scheduled for an amount and duration that will not result in a violation of OP-19 criteria.

SAR can be scheduled for a maximum of 30 minutes.

B. In the determination of the ability to receive SAR, the Generator Operator shall consider up to 200 MW above the posted “TTC In” MW limit as provided in the following examples:

(1) Example 1: If NY-NE is scheduled at 1400 MW and the TTC is 1400 MW, SAR availability is 200 MW on NYN.

(2) Example 2: If NY-NE is scheduled at 1350 MW and the TTC is 1400 MW, SAR availability is 250 on NYN,


5. The Generation Operator shall notify NYISO of any scheduled wheel-through External Transactions with HQ (TransEnergie), NBSO or NYISO.

NOTE

The NE-NB SAR ability is based on information obtained from the voltage/reactive limit details page in DOUBLIC and applicable TTC limits compared to the actual schedule.

6. During the hourly checkout with NBSO, the Generation Operator shall inform NBSO of their ability to receive or provide SAR and the corresponding magnitude of SAR

7. During the schedule update for the next hour the Generation Operator will discuss the following hour priced External Transactions backing Import Capacity Resources scheduled to flow in approximately 90 minutes with the NYISO Interchange Operator (e.g., during the checkout for HE09, the HE10 Day Ahead Import Capacity Resources External Transactions will be discussed).

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.1.3 Evaluate Excess Hourly Ramp

NOTE

Current hour net interchange and net interchange for the next six hours for each interface is available for review in the “Evaluate POOL RAMP” display.


- Excess hourly ramp exists when the difference in pool-wide interchange between two continuous hours exceeds 500 MW.
- The Net Interchange value will be highlighted for any hour having a MW change of 500 MW or greater.
- Wheel-through External Transactions will be excluded from the ramp constraint evaluation.

1. The Generation Operator shall review the difference between the current hour net interchange, the confirmed next hour net interchange and the projected change in future hours
2. If necessary, the Generation Operator shall consider actions required for the next hour to solve a problem in future hours.
3. The Generation Operator shall take actions to reduce the hourly ramp in cases where the hourly ramp will exceed 500 MW.

NOTE

If the resultant transfer will alleviate a reliability problem (e.g., Min Gen, OP-4), the Operations Shift Supervisor approves allowing an hourly ramp that exceeds 500 MW.

4. When the Operations Shift Supervisor allows an hourly ramp to exceed 500 MW; the Operations Shift Supervisor shall:
 - A. Instruct the Generation Operator to allow the hourly ramp to exceed 500 MW.
 - B. Make a log entry in the Control Room Event Logserver.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
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	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


5.1.4 Perform Excess Hourly Ramp Cuts

1. The Generation Operator shall:
 - A. Click on the “Next 6 Hour Pool Ramp” button.
 - B. Review reliability concerns that would exclude an interface from being included in the hourly ramp evaluation.


NOTE

The Interchange Scheduling software will curtail External Transactions in accordance with the methodology described in Appendix B of ISO New England Operating Procedure No. 9 - Scheduling and Dispatch of External Transactions (OP-9).

2. The Generation Operator shall reduce the hourly ramp for the next-hour by running the “Excess Ramp Evaluation” algorithm by performing the following:
 - A. Enter the amount of MWs required to be curtailed in the “Cut MW” box.
 - B. De-select any appropriate interfaces.
 - C. Select the correct “Ramp Problem” reason
 - D. Click on the “Go” button
 - E. Review the list of of External Transactions to be curtailed and, as appropriate, perform one of the following:
 - If a curtailment on the NBSO interface is less than 50 MW and the curtailment is appropriate for all interfaces, click on the “OK” button and verify the curtailment changes are automatically implemented on the “Hourly Details” display.
 - If a curtailment on the NBSO interface is greater than 50 MW, call the NBSO and determine if the MW curtailment amount will result in any NBSO reliability problem.
 - If NBSO does not have a reliability problem and the curtailment is appropriate for all interfaces, click on the “OK” button and verify the curtailment changes are automatically implemented on the “Hourly Details” display.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

- If NBSO has a reliability problem, perform the following:
 - a) Select =”Cancel”
 - b) Click on the “Next 6 Hour Pool Ramp” button.
 - c) Run the “Excess Ramp Evaluation” algorithm by performing the following:
 - i. Enter the MWamount required to be curtailed in the “Cut MW” box.
 - ii. De-select the NB interface.
 - iii. Select the correct “Ramp Problem” reason.
 - iv. Click on the “Go” button.
 - v. Review the list of External Transactions that will be curtailed.
 - vi. If the curtailments are appropriate, click on the “OK” button and verify the curtailment changes are automatically implemented on the “Hourly Details” display
- Make a log entry that NB was de-selected due to reliability concerns in the Control Room Event Logserver.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


5.1.5 Finalize Scheduling Next-Hour External Transactions

1. Every hour the Generation Operator shall send every interface to the IFS page using the “Send to IFS” button.
2. Every hour, the Generation Operator shall notify the Senior Operator the schedules have been transferred to the IFS page
3. The Senior Operator shall verify the schedules in IFS match the schedules in the Interchange Scheduling software and shall inform the Generation Operator the verification has been performed.
4. When HVDC schedule changes the Generation Operator shall contact the following entities and provide instructions to perform following applicable actions:
 - A. Sandy Pond to adjust Phase II to the appropriate schedule.
 - B. VELCO to adjust Highgate to the appropriate schedule.
 - C. Cross Sound Cable Operator to adjust the CSC to the appropriate schedule.
5. The Generation Operator shall contact and inform CONVEX of:
 - A. Any NY AC tie change totaling 300 MW or greater.
 - B. Any CSC tie change totaling 200 MW or greater.
6. The Generation Operator shall contact and inform CMP of any NB tie change totaling 50 MW or greater.
7. The Generation Operator shall inform the Loader Operator when schedules have been transferred to IFS.
8. When informed of schedule changes, the Loader Operator shall update the Pool Control Error Calculator (PCEC).
9. If during the current hour (when the Active Tag Check is being performed) the on-shift TSO Administrator discovers a tag discrepancy:
 - A. The on-shift TSO Administrator shall notify the Generation Operator of the tag discrepancy.
 - B. When notified of the tag discrepancy, the Generation Operator shall resolve all conflicts as soon as possible, within the current hour.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


5.1.6. *Scheduled
Next-Hour
External
Transaction
Ramping
Verification*

1. When an External Transaction schedule change ramp is complete, the Generator Operator shall verify each actual interface MW value coincides with the new schedule.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.2 Schedule During Minimum Generation Emergency Warning Condition

1. During an actual or potential Minimum Generation Emergency condition the Generation Operator shall schedule next hour External Transactions in conjunction with performing SOP-RTMKTS.0120.0015 - Implement Minimum Generation Emergency Remedial Action.
2. If a Minimum Generation Emergency Warning has been issued for the upcoming hour, the Generation Operator shall schedule next hour as follows:
 - A. Contact each neighboring RC/BA and verify the External Transactions that are expected to be scheduled next hour in accordance with Section 5.1.
 - B. To eliminate all dispatchable External Import Transactions without a Day-Ahead component enter a value that will result in no dispatchable External Transaction being scheduled into the Interchange Scheduling software for all interfaces and run the algorithm.
 - C. Select the Interchange Scheduling software “Min Gen Emer” display.
 - D. Verify the correct interfaces are selected.
 - E. Select the “Check DA/RT Totals” and verify the information has been refreshed.
 - F. In accordance with SOP-RTMKTS.0120.0015 - Implement Minimum Generation Emergency Remedial Action
 - (1) Enter the desired value of MW to be curtailed
 - (2) Click on the “Cut” button
 - (3) Verify the list of External Transactions to be curtailed is appropriate

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


G. If the curtailments are appropriate:

- (1) Click on the “OK” button

NOTE

If the Scheduling Algorithm is run at this point the Minimum Generation Emergency Warning curtailments will be removed unless the changes made by the Interchange Scheduling software “Excess Generation” display are manually locked. During Minimum Generation Emergency Warning Condition scheduling, the Interchange Scheduling software will curtail External Transactions as described in Attachment B - Minimum Generation Emergency Scheduling Priority.

- (2) Verify the curtailment changes are automatically implemented on the “Hourly Details” screen.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.3 Schedule During Minimum Generation Emergency Conditions

1. When a Minimum Generation Emergency condition has been declared, the Generation Operator shall schedule next hour External Transactions as follows:
 - A. Contact each neighboring RC/BA and verify each External Transaction that is expected to be scheduled next hour in accordance with Section 5.1.
 - B. Enter a zero dollar (\$0) price for each external interface.
 - C. Verify all “RT Only MW” External Import Transactions are curtailed prior to curtailing DA External Transactions.
 - D. Select the Interchange Scheduling software “Min Gen Emer” display.
 - E. Verify the correct interfaces are selected.
 - F. Select the “Check DA/RT Totals” and verify the information has been refreshed.
 - G. In accordance with SOP-RTMKTS.0120.0015 - Implement Minimum Generation Emergency Remedial Action:
 - (1) Enter the desired value of MWs to be curtailed
 - (2) Click on the “Cut” button
 - (3) Verify the list of External Transactions to be curtailed is appropriate.
 - H. If the curtailments are appropriate:
 - (1) Click on the “OK” button
 - (2) Verify the curtailment changes are automatically implemented on the “Hourly Details” screen.

NOTE

If the Scheduling Algorithm is run at this point the Minimum Generation Emergency curtailments will be removed unless the changes made by Interchange Scheduling software Excess Generation display are manually locked. During Minimum Generation Emergency scheduling, the Interchange Scheduling software will curtail External Transactions as described in Attachment B - Minimum Generation Emergency Scheduling Priority.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


5.4 Schedule Security Energy Transactions (SETs)

NOTE

Market Participants submit Security Energy Transactions (SETs) during periods when the New Brunswick to New England minimum tie flow requirements are violated or potentially could be violated.

ISO and the NBSO share a joint Interconnection Reliability Operating Limit (IROL) related to minimum flow requirements on the 3001 and 390/3016 lines which interconnect the two RCAs. Occasionally, the MW flow on the ties are insufficient (north to south) to ensure acceptable stability criteria on a post-contingent basis. ISO takes the lead role in determining the requirements to avoid or correct violations with NBSO.

1. In order to avoid or correct a violation, both ISO and NBSO shall take corrective action(s) using no-cost methods when applicable.
2. After exhausting no-cost methods and a violation or potential IROL violation still exists, the Operations Shift Supervisor shall take the following necessary actions, in the following order, in coordination with NBSO to avoid or correct the violation of the minimum flow requirement on the tie lines:
 - A. Curtail exports from New England to New Brunswick as follows:
 - (1) Select the NB interface on the “Control Room Hourly Detail” display.
 - (2) View the Interface Summary section and answer the following question to determine the next required action: Are there both “Purchase” and “Sale” amounts displayed?
 - a. If the answer is “No”:
 - (i) Set the export TTC to 0 (zero) to curtail any External Export Transactions
 - (ii) Go to step 5.4.2.B.
 - (3) Select “Price Tie”.
 - (4) Verify the NB interface is selected with a checkmark.
 - (5) Select “Export” from the “Cut Direction” drop down menu (Default is “Import”).

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

- (6) Choose “Transmission Constraint in New England” from the “Cut Reason” drop down menu (Default is “Economic”).

NOTE

Entering a MW value in the “Cut MW” field greater than the total MW amount available will produce a pop-up warning of the overage and no External Transactions will be listed.

- (7) Enter a MW value into the “Cut MW” field that will satisfy the transmission issue, but will not exceed the total amount available.
- (8) When the curtailments are acceptable, click on the “OK” button and verify the curtailment changes are implemented.

B. Request SETs:

- (1) Notify Customer Support, using Attachment J of SOP RTMKTS.0125.0020 - Communicate with Internal and External Parties, to post a message “Special Request for Security Energy Transactions” to the “Notice” section of the external Web site.

NOTE

The title of the notification sent using the Emergency Notification System software (ENS) to request SETs is to be:

“Special Request for Security Energy Transactions”.

An example of the text of the request is to read as follows:


“ISO New England is experiencing deficiencies in New Brunswick to New England tie flow requirements and is expecting this condition to exist for the following date and hours;

Date: Type in the day of the deficiency.

Hour Ending: Type in the hours of the deficiency.

“ISO New England is requesting the submittal of Security Energy Transactions on the New Brunswick to New England tie lines during this time period.”

- (2) Make notifications for SETs using the ENS.


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

SETs are submitted to the ISO via the External Transaction scheduling software as imports with the designation, “Security Energy Transactions” and may be submitted as either SS (“Real-Time without Price”) or Dispatchable (“Real-Time with Price”). SETs may be submitted up to sixty minutes prior to the top of the hour in which the transaction is requested to begin.


Energy (including SETs) is scheduled for the next hour to the required MW level, based on economics, from all available offers in sufficient quantity to correct the potential or actual violation.

3. If the preceding steps do not fully correct the potential or actual violation, the Operations Shift Supervisor shall schedule Control-Area-to-Control-Area Security Energy to satisfy the minimum flow requirement.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.5 Pre-OP-4 Curtailment of RT Only MWs

1. If Operating Reserve is a concern and the Operations Shift Supervisor has determined that curtailment of the “RT Only MWs” can prevent a capacity deficiency, the Operations Shift Supervisor shall instruct the Generation Operator to schedule Next Hour External Transactions as follows:
 - A. Verify the Operations Shift Supervisor has provided instructions for an ENS notification.
 - B. Contact each neighboring RC/BA and verify the External Transactions that are expected to be scheduled the next hour in accordance with Section 5.1.
 - C. Select Interchange Scheduling software “NOP4 Recall Stacker”
 - D. Verify the correct interfaces are selected.
 - E. Select the “Check DA/RT Totals” button and verify the information has been refreshed.
 - F. Review the amount of “RT Only MWs” on the Interchange Scheduling software “NOP4 Recall Stacker” display and verify the display indicates the MW amount of exports that can be curtailed.
 - G. If the amount of “RT Only MWs” available to be curtailed can avoid a capacity deficiency for the next hour, the Generation Operator shall:
 - (1) Determine the amount of “RT Only MWs” that will prevent a capacity deficiency in the next hour.
 - (2) Enter the number of MW to be curtailed for each external interface in the “NOP4 Recall Stacker Curtail” display.
 - (3) Press the “Cut” button and review the list of External Transactions to be curtailed.
 - (4) If the curtailments are appropriate:
 - a. click on the “OK” button
 - b. verify the curtailment changes are automatically implemented on the “Hourly Details” screen

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


H. If the amount of “RT Only MWs” available to be curtailed cannot avoid a capacity deficiency for the next hour, the Generation Operator shall notify the Operations Shift Supervisor.

NOTE

External Transactions identified as “Non-CSO” or “Non-CSO/LSCC” will appear in the Interchange Scheduling software highlighted in silver or orange respectively. Either of these exports that are backed in accordance with MR1 III.1.10.7(i), where the referenced Generator is online and SS to the MW value of the External Transaction, will not be considered in the “NOP-4 Recall Stacker”. Those not properly backed will appear in the “NOP-4 Recall Stacker”:

- Non-CSO or Non-CSO/LSCC exports backed by Generators that are not SS to the MW value of the External Transaction may be curtailed to the amount of the SS.
- Non-CSO or Non-CSO/LSCC exports backed by Generators that are not online or online but not SS may be curtailed to zero.

The Interchange Scheduling software will curtail External Transactions as described in Attachment C - OP-4 Scheduling Priority

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.6 Schedule During OP-4 Conditions


1. During OP-4 conditions the Generation Operator shall schedule next-hour External Transactions in conjunction with performing SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action.
2. The Generation Operator shall perform these steps after OP-4 Action 5 has been initiated.
3. The Generation Operator shall schedule the External Transactions in accordance with Step 5.1 of this procedure.
4. In order to curtail export External Transactions, and once all other steps have been taken regarding External Transaction scheduling in accordance with SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action, the Generation Operator shall:

NOTE

External Transactions identified as “Non-CSO” or “Non-CSO/LSCC” will appear in the Interchange Scheduling software highlighted in silver or orange respectively. Either of these exports that are backed in accordance with MR1 III.1.10.7(i), where the referenced Generator is online and SS to the MW value of the External Transaction, will not be considered in the “NOP4 Recall Stacker”. Those not properly backed will appear in the “NOP4 Recall Stacker”:

- Non-CSO or Non-CSO-LSCC exports backed by Generators that are not SS to the MW value of the External Transaction may be curtailed to the amount of the SS.
- Non-CSO or Non-CSO-LSCC exports backed by Generators that are not online or online but not SS may be curtailed to zero.


- A. Select the Interchange Scheduling software “NOP4 Recall Stacker”
- B. Verify the correct interfaces are selected.
- C. Click on the “Check DA/RT Totals” button and verify the information is refreshed.
- D. Enter the number of MW to be curtailed where the value entered shall be greater than the “RT Only MW”.
- E. Click on the “Cut” button and verify the list of External Transactions to be curtailed.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

NOTE

During OP-4 conditions scheduling, the Interchange Scheduling software will curtail External Transactions as described in Attachment C - OP-4 Scheduling Priority.

5. If the curtailments are appropriate, click on the “OK” button and verify the curtailment and the changes are automatically implemented on the “Hourly Details” screen.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.7 Schedule Reliability Loop Flow on the NNC


NOTE

There are times during transmission facility out conditions in New England (for example: 398, 312 and 393) that pre-contingency actions need to be taken to ensure reliable operation. During these certain conditions it may be necessary to pre-load the NNC in the opposite direction of the contingency (Reliability Loop Flow).

1. When Reliability Loop Flow is required the Operations Shift Supervisor shall operate the NNC and New York Northern AC ties as follows:
 - A. The Import TTC on the NNC shall be reduced to zero.
 - B. Coordinate with the NYISO System Operator and schedule Reliability Loop Flow on the NNC as needed to maintain first contingency coverage in accordance with OP-19 criteria.
 - C. Do not enter Reliability Loop Flow into the Interchange Frequency Scheduling (IFS) software. The Reliability Loop Flow shall be counted as inadvertent energy on the NNC, with equal and opposite inadvertent energy flowing on the New York Northern AC ties.

NOTE

Scheduling of Reliability Loop Flow is only used to provide for pre-loading on the NNC Interconnection to protect for New England source contingencies during certain transmission facility out conditions. Reliability Loop Flow is not be used to address operable capacity deficiencies regionally or system-wide. For capacity deficiencies refer to SOP-RTMKTS.0120.0020 Implement Capacity Remedial Action.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

5.8 Communications

1. For Excess Ramp, Minimum Generation Emergency and OP-4 conditions, the Generation Operator shall inform the TSO Administrator of any inconsistencies between an adjacent RC/BA next hour External Transaction schedule and ISO or any rejection of External Transactions in the Next-Hour Scheduling process.
2. When an External Transaction has been rejected in the next hour scheduling process, the notification to submitter of the External Transaction will occur via the adjustment to the NERC eTag.


5.9 Loss of Adjacent RC/BA Schedule Software

NOTE

This section is applicable in the event of a loss of schedule software, or scheduling software maintenance with an adjacent RC/BA

The intent of this section is to schedule the Day Ahead Transactions that cleared both the NYISO and ISO Day Ahead Markets.

1. The Generation Operator shall:
 - A. Click on the “Run Scheduling” button.
 - B. Select the “From DA” box for the appropriate interface(s).
 - (1) For the NYISO interfaces, obtain the “DAM Checkout” spread sheet (that is conducted after 1600 the day prior) from the TSO Administrator and only schedule External Transactions that cleared both the NYISO and ISO Day Ahead Markets.
2. The Operations Shift Supervisor will make the final decision based on system reliability.
3. The Generation Operator shall schedule External Transactions in accordance with section 5.1.

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

6. Performance Measures

None.

7. References

NERC Reliability Standard INT-003 - Interchange Transaction Implementation

NERC Reliability Standard INT-005 - Interchange Authority Distributes Arranged Interchange

NERC Reliability Standard INT-008 - Interchange Authority Distributes Status

ISO New England - ISO New England Inc. Transmission, Markets and Services Tariff Section III, ISO New England Market Rule 1 - Standard Market Design (Market Rule 1)

Open Access Transmission Tariff (OATT)

ISO New England Manual for Market Operations, Manual M-11 (Manual 11)

ISO New England Operating Procedure No. 4 - Action During a Capacity Deficiency (OP-4)

ISO New England Operating Procedure No. 9 - Scheduling and Dispatch of External Transactions (OP-9)

ISO New England Operating Procedure No. 19 –Transmission Operations (OP-19)

ISO Procedure RSKMGT.0020.0010 - Appendix 2, ISO-NE Record Retention Schedule


SOP- OUTSCH.0030.0020 - Perform Short Term Outage Coordination

SOP-RTMKTS.0125.0020 - Communicate with Internal and External Parties

SOP-RTMKTS.0120.0015 - Implement Minimum Generation Emergency Remedial Action


SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action

SOP-RTMKTS.0125.0040 - Update Control Room Logs


	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014

8. Revision History


Rev. No.	Date	Reason	Contact
0	03/01/03	Original	Don Gates
1	03/24/03	Revised to include SCRA population of the EES-MOI and Attachment F- Excess Ramp Software Operation	Don Gates
2	07/08/03	Revised to incorporate new Implement Minimum Generation Emergency Remedial Action procedure	Don Gates
3	7/28/03	Revised to include reference for RSCPE	Don Gates
4	09/08/03	Revised to include designation for Ets taken OOM for 1 st Contingency	Don Gates
5	01/26/04	Changes to Controls and Performance Measures sections	Don Gates
6	02/01/05	Updated SOP for RTO terminology	Steve Weaver
7	04/01/05	Revise for scheduling Inadvertent Payback for NERC version 0, NOTE for TTC changes	Steve Weaver
8	05/02/05	Revised to include information on fully and partially de-listed units in the OP-4 Recall Stacker	Steve Weaver
9	4/19/06	Revised to include Emergency Energy transactions for the 1385 and curtailing transactions to get to interface limits or 0. Also redefine language for tagging Inadvertent Payback. Added step for unilateral payback limit for Highgate	Steve Weaver
10	7/24/06	Revised note about adjusting TTC values	Steve Weaver
11	1/02/07	Revised to include changes to ATT E for Excess Ramping Group 1 and Group 2 definitions, added info for NB to turn off ADI and lower AGC deadband	Steve Weaver
12	04/13/07	Clarified how Excepted Transactions are handled in scheduling and curtailment in Attachments B. Old attachments B and C were deleted because they are handled in SOP-RTMKTS.0100.0010 Revised description of evaluation for ramp constraints in Attachment C	Steve Weaver
13	04/30/07	Revised responsibilities for scheduling transactions	Steve Weaver
14	06/26/07	Revised for new EES/MOI functionality and new 1385 external node recognition	Steve Weaver
15	08/14/07	Revised activities dealing with NB TTC and revised nomenclature for NY line	Steve Weaver
16	12/20/07	Revised to include the new 390 line	Steve Weaver
17	02/01/08	Added step after 5.1.5 NOTE to use the Price Tie button in EES-MOI to select determine and schedule partial schedule dispatchable contracts reductions. Revised step 5.6.1.4 to allow max ramps of up to 1/3 of the forecast hourly load change with Shift Supervisor approval only. Added new step 5.7.3 to proceduralize notification of NYISO and PJM when scheduling Phase 2 in in excess of 1200 MW and the PJM base limits respectively	Steve Weaver

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


Rev. No.	Date	Reason	Contact
18	06/03/08	Annual Review by Procedure Owner. Updated to reflect the new treatment of Real-Time only transactions in the latest revision to OP 9	Steve Weaver
19	07/16/08	To step 5.1.4.b change to state “the Operator Information System (OIS) Energy_Supply_Time_Curve and Destacker_To_EnergyMin” To step 5.1.4 add 5.1.4.c stating: “Run UDS case using appropriate “Look Ahead” and Load Adjustment Factor (LAF)” To step 5.2.2 add “for the upcoming hour” and change step 5.2.3 to state “When a Minimum Generation Emergency condition is declared,...”	Steve Weaver
20	08/14/08	Deleted entire Section 5.4 Scheduling Reliability Loop Flow on the 1385 NNC	Steve Weaver
21	09/21/08	Deleted Attachment A – Out of Merit External Reliability Transaction Tracking form; Modified various Att. designation references as necessary due to deletion of Att A.; Changed CA/BA to CA/BAA in step 5.1.9 Modified step 5.1.8	Steve Weaver
22	01/09/09	Document header changed “Review Due Date” to Valid Through: mm/dd/yyyy per Mgr, Operations direction Modified Responsibilities 3.1 to state “approximately” instead of “at least”; Step 5.1.4 reword to state “...by analyzing the following information.”; Modified the first sentence in the NOTE prior to 5.1.5 to state “...are to be operated near the TTC...” Step 5.1.6.a to state “...utilizing an appropriate LMP,...” Added ISO to Step5.1.8.b Deleted Step 5.1.8.c & d Added (e.g., N-2 criteria) to new step 5.1.8.d Modified step 5.2.3.b.; Added NOTE prior to step 5.7.1 and a new step 5.7.1; Added an Example after step 5.7.1; Added new step 5.7.9	Steve Weaver
23	05/13/09	Header changed VP Operations to Director, Operations; Reworded step 5.1.8; Modified NOTE at end of step 5.4., after Step 5.5.4. and for Step 5.6.1; Modified step 5.7.4 to reflect EMS upgrade	Steve Weaver
24	06/18/09	Modified Section 3 Resonsibilities; changed TSO Engineer to Short-Term Outage Coordination group; Added NOTE prior to new step 5.1.11; added new steps 5.1.11. & 5.1.12;	Steve Weaver
25	07/13/09	New Step 5.1.9; New NOTE prior to step 5.7.10; New step 5.7.10	Steve Weaver

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
	Approved By: Director, Operations	Valid Through: January 12, 2014


Rev. No.	Date	Reason	Contact
26	01/13/10	Biennial Review by Procedure Owner; Reworded NOTE in Section 3 Responsibilities; Modified steps 5.1.1 and sub-steps a., b., & c.; Modified NOTE prior to step 5.1.5; Deleted step 5.1.9.; Added new step 5.1.14. and sub-steps a. & b. & step 5.1.15; Modified sub-steps for 5.2.2. 5.2.3.; Modified sub-steps 5.3.2.b.(1) & (2); Modified sub-steps for 5.4.1, Modified sub-steps for 5.5.4, Modified step 5.6.1.4 and sub-steps; Modified step 5.7.2 and added new sub-steps and NOTE	Steve Weaver
27	02/02/10	Globally replace CA/BA with RC/BA, CA/BAA with RCA/BAA, and Areas with RCA; Global change deleted "1385" from all mentions of the NNC; Re-worded step 5.8.10; Added new Section 5.7 Scheduling Reliability Loop Flow on the NNC	Steve Weaver
28	06/01/10	Global minor editorial format changes, spelling, grammar, etc. Section 2 provide details for MR1 5.1 Schedule Update for Next Hour Note modified to permit the use of Real-time Demand Response resources prior to reducing the TTC for Export Backed out of Connecticut. changed NOTE prior to step 5.1.3, modified step 5.1.7 and sub-steps, step 5.1.8.B, step 5.1.13, Step 5.1.14 Modified Step 5.4.1, step 5.4.1.E, NOTE following Step 5.4.1.G Modified NOTE following 5.5.4 Scheduling During OP4 Globally replaced transaction with External Transaction Added new Step 5.8.11; Modified step 5.9. Section 7 added full title for MR1; Attachment A modified text and replaced blockdiagrams	Steve Weaver
29	08/12/10	Section 2 Background exchanged "Northport" and "Norwalk Harbor" Globally made consistent use of the term "External Transaction" and the terms "curtail, curtailed, & curtailment", and "reduce, reduction, & reduced" replaced "cut" with reduce, reducing, reduction"; Section 5.1 added new 1 st NOTE and modified 2 nd NOTE; Globally replaced "transaction" with "External Transaction"; Reworded Section 5.1.7 steps and sub-steps & Section 5.3.2.A; Modified Section 5.4 title & Section 5.6 title; Modified various Section 5.6 and section 5.7 steps & sub-steps;	Steve Weaver

	© ISO New England Inc. 2012	Procedure: Schedule Next-Hour External Transactions
	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Rev. No.	Date	Reason	Contact
30	12/08/10	<p>Globally replaced contracts with transactions and used External Transactions where appropriate;</p> <p>Changed EES MOI to Interchange Scheduling software throughout the SOP.</p> <p>Section 5.1 broken into subsections to perform normal schedule updates for the next hour.</p> <p>Section 2 Added Security Energy Transactions to the list of transactions that can be submitted after 12 noon the day before the operating day.</p> <p>Section 3 Removed the mention of performing the next hour schedule 30 minutes prior to the start of the dispatch hour. Added steps 5, 6 and 7 to have the Generation Operator notify the Senior Operator after the schedules have been transferred to the IFS page.</p> <p>Section 5.1.1 Removed the step to adjust look ahead time and LAF to calculate the next hour LMPs. The NOTE information pertaining to turning off New Brunswick's ADI has been removed from this SOP and has been added to Monitor System Security SOP. Clarified the process to perform price tie curtailments. Added instructions to set Phase II schedule without violating the lowest limit in the Single Source Contingency Monitor. Added instructions to schedule bilateral inadvertent transactions.</p> <p>Section 5.1.2 Created a separate section to confirm schedules with adjacent BAs. Removed the RRSE reference since C38 was retired.</p> <p>Section 5.1.3 Created a separate section for evaluating excess hourly ramping.</p> <p>Section 5.1.4 Created a separate section providing guidance to perform the excess ramping cuts with the Interchange Scheduling software.</p> <p>Section 5.1.5 Created a separate section to finalize scheduled next hour transactions.</p> <p>Section 5.2 Created a separate section for scheduling transactions under a Minimum Generation Emergency Warning condition.</p> <p>Section 5.3 Added clarification to curtail transactions when Minimum Generation Emergency Condition is declared.</p> <p>Section 5.5 Added clarification to curtail RT only transactions prior to declaring MLCC 2 or OP-4.</p> <p>Section 5.9 Added a new section to provide guidance when to use "From DA" scheduling with neighboring B/As.; Retired Attachment D</p>	Steve Weaver
31	01/11/11	<p>Added requirements of NERC Reliability Standards INT-003, INT-005 & INT-008 and RSKMGT.0020.0010 Appendix 2 to Section 4 Controls;</p> <p>Modified steps 5.1.1.14.B & 5.1.1.14.C</p> <p>Added NERC Reliability Standards INT-003, INT-005 & INT-008 and RSKMGT.0020.0010 Appendix 2 to Section 7 References</p>	Steve Weaver

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	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Rev. No.	Date	Reason	Contact
32	04/10/11	<p>Headers updated Procedure Owner name; Section 2 corrected Market Rule 1 title; Section 3 modified step 3.5; NOTE prior to step 5.1.1.2 corrected data in 1st & 2nd bullets; NOTE prior to step 5.1.1.6 modified; NOTE prior to step 5.1.2.6 modified;</p> <p>Modified step 5.1.18 and added new step 5.1.19 Section 5.2 modified step 5.2.2.B, relocated NOTE formerly at end to be prior to step 5.2.2.G.(2); Section 5.4 modified step 5.4.3; Section 5.4 modified step 5.5.1; Section 5.9 added new sub-step 5.9.1.B.(1); Section 7 corrected Market Rule 1 title</p>	Steve Gould
33	07/20/11	<p>Section 3. modified step 3.1 by reformatting and adding former step 3.5 as 3.1.B; Deleted 1st NOTE following Step 5.1.1.; Added new 1st NOTE following Step 5.1.1.1; Step 5.1.1.14.A added "...CSC and..."; Step 5.1.1.15 added new step and sub-steps and renumbered remaining steps accordingly; Sub-section 5.1.2 corrected the title by adding "...each..." and "...RC/..."; Step 5.1.2.3.A.(1) added "...and Highgate..."; Step 5.1.4.2.E modified by adding: "...and as appropriate, perform one of the following"; Added new bullets, sub-bullets & sub-steps for Step 5.1.4.2.E; Step 5.1.5.7 deleted "...contact and..."; Step 5.1.5.9 deleted "...In-Hour..."; Step 5.2.2.B modified by replacing "...\$0.00..." with "...that will result in no dispatchable External Transactions being scheduled..."; Step 5.3.1.A clarified grammar; Step 5.3.1.B modified by replacing "...\$0.00..." with "...that will result in no dispatchable External Transactions being scheduled..."; Modified NOTE following step 5.4.2.B.(1); Section 5.7 NOTE deleted "In certain situations the resultant pick up factor on the NNC for the next contingency may exceed the LTE limit with the NNC TTC reduction to zero MW."; Step 5.7.1.A deleted "...and Export..."; NOTE following Step 5.7.1.C deleted the 2nd paragraph</p>	Steve Gould

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34	08/05/11	<p>Section 2 Background 2nd paragraph, 1st bullet, added acronym NYN;</p> <p>Section 2 Background 3rd paragraph, added new last sentence;</p> <p>NOTE above 5.1.2.4, deleted "... Simultaneous Activation or Reserve...";</p> <p>Step 5.1.2.4, modified grammar;</p> <p>New sub-steps 5.1.2.4.A and 5.1.2.4.B, expand the directed action required to competently perform the task;</p> <p>New sub-section 5.1.6, added new sub-section;</p> <p>Step 5.3.1.B, Replaced, now the directed action is to enter a zero dollar (\$0) price;</p>	Steve Gould
35	01/12/12	<p>Biennial review by procedure owner;</p> <p>Step 5.1.1.1.14 and 5.1.1.1.14.E replaced "direct" with "instruct";</p> <p>NOTE above 5.1.1.15 removed "directed";</p> <p>step 5.1.1.1.15 replaced "directed" with "instructed"</p> <p>Step 5.1.1.15.H summed the MW values in example;</p> <p>Step 5.1.1. 20 added language regarding CETICZ transactions;</p> <p>NOTE above 5.1.2.4.B reworded NOTE regarding SAR use and OP-19.</p> <p>Step 5.1.3.4.A replaced "Direct" with "Instruct";</p> <p>Step 5.1.5.4 replaced "direction" with "instruction";</p> <p>NOTE below step 5.5.H reworded NOTE regarding SAR use and OP-19;</p> <p>Step 5.5.1 replaced "direct" with "instruct";</p> <p>Step 5.5.1.A replaced "directed" with "provided instructions for"</p> <p>NOTE below step 5.5.1.H added another term specifying two types of transactions;</p> <p>NOTE below step 5.6.4 added another term specifying two types of transactions</p>	Steve Gould

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	Process Name: Schedule Next-Hour External Transactions	
	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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9. Attachments

Attachment A - Scheduling Priority

Attachment B - Minimum Generation Emergency Scheduling Priority

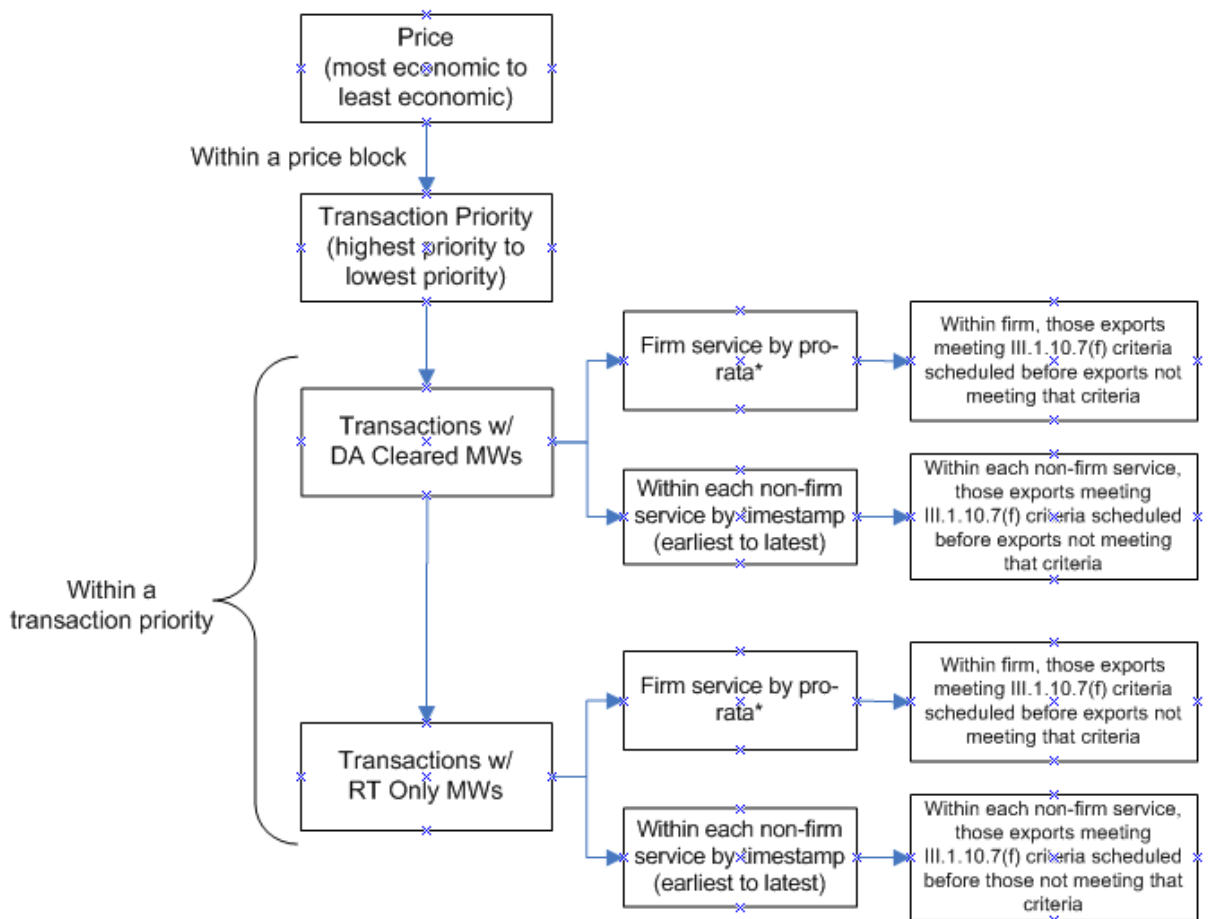
Attachment C - OP-4 Scheduling Priority

Attachment D - Retired (12/08/10)


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	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Attachment A - Scheduling Priority

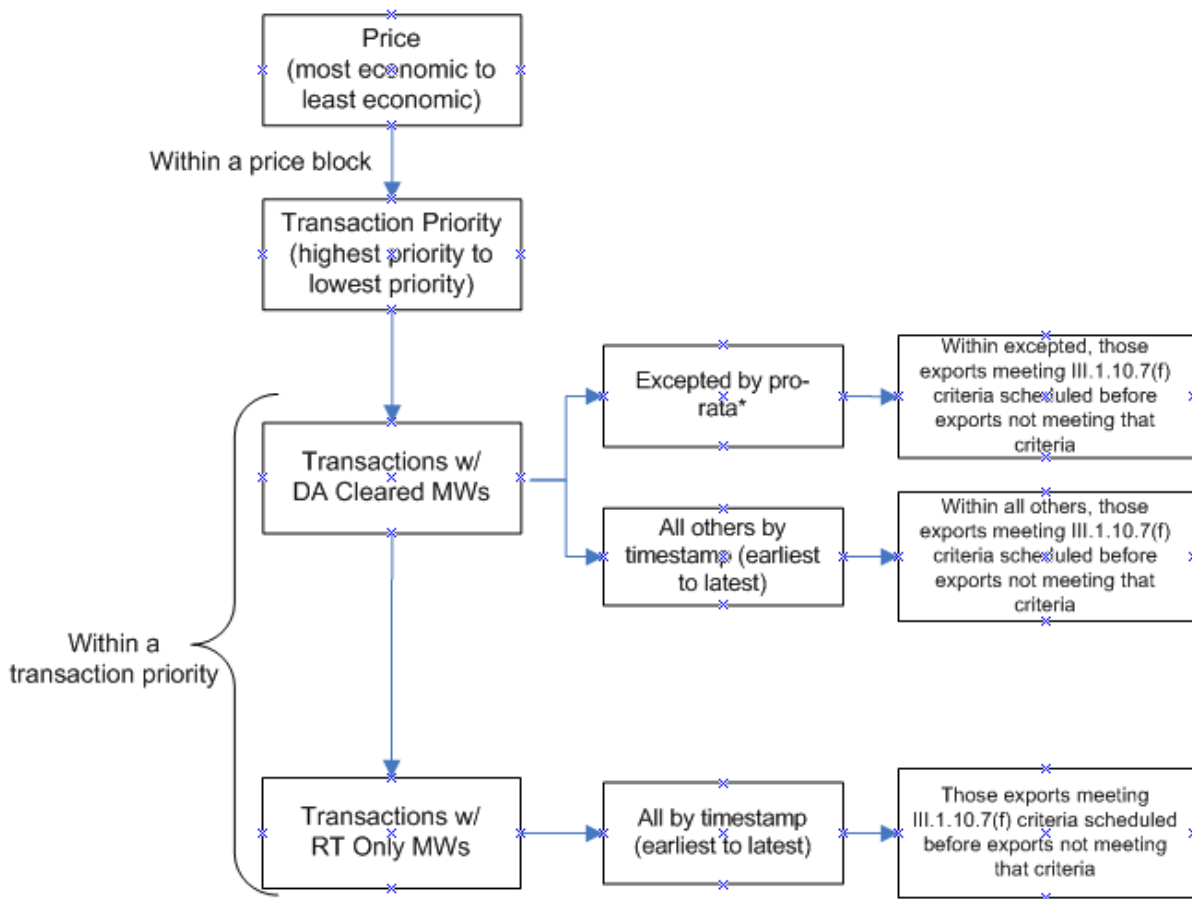
Scheduling of Imports and Exports over NON- Pool Transmission Facilities (non-PTF) External Interfaces (Phase II and CSC)




* Pro-rata reductions involve applying an equal percentage reduction to all affected transactions

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	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Scheduling of Imports and Exports over PTF External Interfaces (New York Northern AC Ties, NNC, Highgate, New Brunswick)

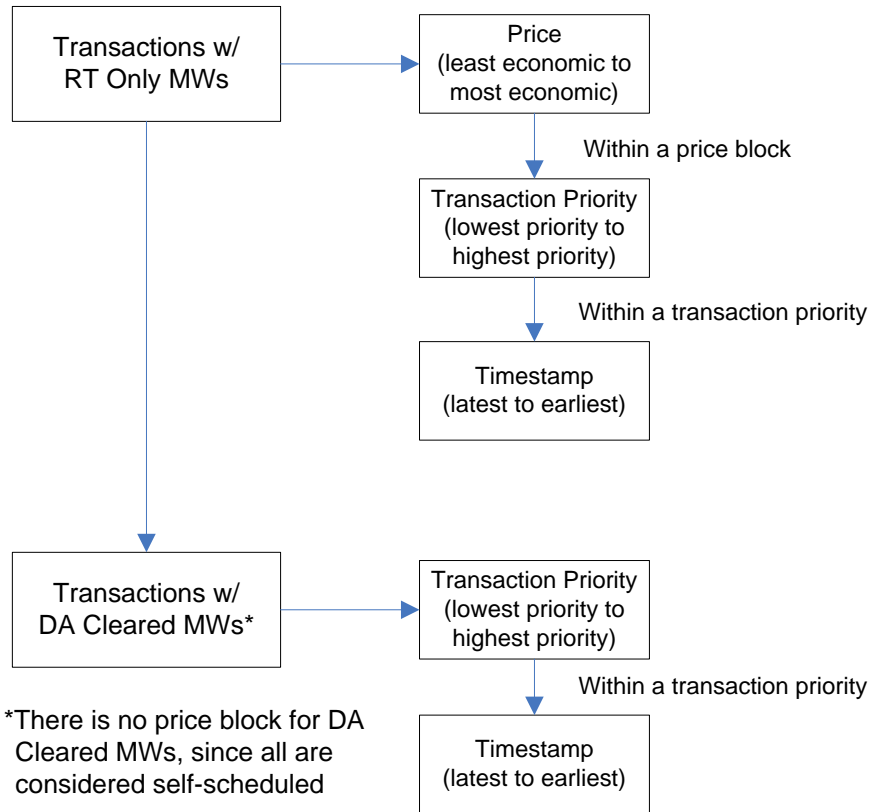


* Pro-rata reductions involve applying an equal percentage reduction to all affected transactions


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	Procedure Number: RTMKTS.0090.0010	Revision Number: 35
	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Attachment B - Minimum Generation Emergency Scheduling Priority

Curtailment priority for Scheduling on all interfaces (PTF and Non-PTF)

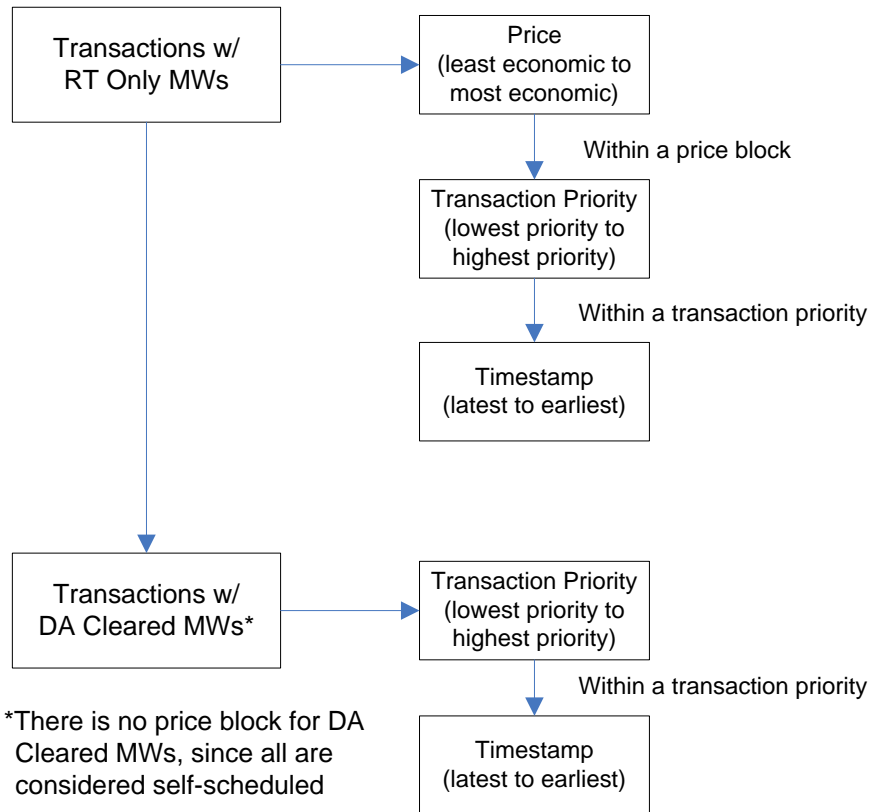



NOTE: Wheels through and out of New England are not affected in an Minimum Generation Emergency condition situation, except in the special case of a “Local to Maine” Minimum Generation Emergency condition.

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	Procedure Owner: Steve Gould	Effective Date: January 12, 2012
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Attachment C - OP- 4 Scheduling Priority

Curtailment priority for Scheduling on all interfaces (PTF and Non-PTF)



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Attachment D - Retired (12/08/10)