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References

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5. OP 19 – Transmission Operations
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7. CROP.36004 Single Source Contingency
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Procedure Background

External transactions can be scheduled to flow over any of the following 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)
- Phase II
- Highgate

Schedule change required notifications to LCCs:

CONVEX LCC Operator is notified for the following:

- NYN tie change greater than or equal to 500 MW; Or
- NNC tie change greater than or equal to 100 MW; Or
- CSC tie change greater than or equal to 200 MW.

Maine LCC Operator is notified for the following:

- NB tie change greater than or equal to 200 MW when the current Interface schedule is less than or equal to 700 MW; Or
- NB tie change greater than or equal to 100 MW when the current Interface schedule is greater than 700 MW

NH LCC Operator is notified for the following:

- Blocking of Phase II;
- De-Blocking of Phase II.

Acronyms:

- (CTS) Coordinated Transaction Scheduling
- (DBC) Day Before Checkout

Confirmation of interchange schedules shall be performed in accordance with the requirements found in NERC INT-009 – Implementation of Interchange. These requirements include securing the agreement of the future interchange magnitude, direction, and applicable time intervals. This agreement should be performed through periodic interval checkouts with adjacent Balancing Authorities using proper 3-Part Communications, as outlined within MLCC 13 – ISO and LCC Communication Practices.

When settling the integrated schedule, the use of an agreed upon, effective minute will be determined to accommodate IESO and NYISO scheduling software requirements.

NYISO **cannot** request ISO-NE to reduce the largest single source contingency to less than the value specified in the Procedure to Protect for Loss of Single Source Contingency Guide.

A baseline exists for Phase II transfer limit (1,300-1,500 MW) and PJM allows a margin above this baseline for operations.
Normal baseline is 1,400 MW with margin between 0 and 600 MW.
The baseline **cannot** be reduced below 1,300 MW.

If NYISO or PJM request Phase II transfer to be reduced, the Phase II reduction must be accomplished within ten (10) minutes from the time the request is made. Phase II ramp rate is limited to 99 MW/min. This ten (10) minute requirement only applies to Phase II in accordance with the ISO Tariff Attachment G – Procedure to Protect for Loss of Phase II Imports.

Should a delay be encountered during a reduction of Phase II, and the ISO-NE Control Room Operators are unable to contact the HQT Operator, the Sandy Pond Operator has the ability to initiate the reduction. The Regional Dispatcher at Rouyn-Noranda has the authority to decrease exports to New England at the request of the Sandy Pond Operator. Contact information for the Rouyn Regional Dispatcher is contained in GEN-C-040 – Common Dispatch Instructions.

When curtailing an external transaction to mitigate an IROL/SOL alarm, it is expected the applicable RC/BA is contacted and instructed to start the ramp to the new schedule immediately and when the ramp is completed, the applicable RC/BA is contacted to settle the individual tag change.

If the Operating Reserve drops to within 200 MW of the Thirty-Minute Operating Reserve requirement and the Operations Shift Supervisor determines that reduction of the “RT Only MWs” can prevent the capacity deficiency, the Operation Shift Supervisor shall direct the Generation Operator to curtail a currently scheduled export(s) to prevent a capacity deficiency.

To satisfy NERC Standard IRO-006-EAST – Transmission Loading Relief Procedure for the Eastern Interconnection, the Interchange Distribution Calculator (IDC) software is monitored by the Forecaster and external transactions impacted by TLRs are communicated to the Generation Operator and Senior System Operator. The forecaster is alerted by the IDC when there is a new TLR which and then auto-acknowledged by the IDC software. The Forecaster will then communicate to the Generation Operator and Senior System Operator any transaction associated with the TLR, amount of MW to curtail and curtailment Hour Ending. If the auto-acknowledge feature is disabled in the IDC software, the TLRs will be monitored manually by the Forecaster.

Common Procedure Information

A. Any ISO-NE qualified Control Room Operator has the authority to take actions required to comply with NERC Reliability Standards. A qualified ISO-NE Control Room Operator has met the following requirements:
   1. Have and maintain a NERC certification at the RC level (per R.1 of PER-003-2)
   2. Applicable Requirements of PER-005-2
   3. Approved to cover a Control Room Operator shift position by the Manager, Control Room Operations
   4. Is proficient at the current qualified level.

B. Real time operation is defined as the current hour and the current hour plus one.

C. Future hours are those beyond real time operation.

D. All verbal communications with Local Control Centers (LCC), neighboring Reliability Coordinators/Balancing Authorities (RC/BA), Designated Entities (DE), Demand Designated Entities (DDE) and/or SCADA centers shall be made on recorded phone lines unless otherwise noted.

E. For all communications:
   1. Use the Basic Protocol for All Operational Communications as prescribed in M/LCC 13.
   2. Use 'ISO New England' or 'New England'. Refrain from using 'ISO'.
   3. Use Asset ID's when communicating with DE/DDEs.
   4 Use three-part communication in all situations where its use will enhance communication.

F. Primary responsibilities are stated for each step within the procedure, but any ISO Control Room Operator qualified at that position or higher can perform the step. The Primary Responsibility may be delegated to an Operator in a lower qualified position, but the responsibility for its completion remains with the identified individual.

G. The use of “ensure” within this document means that a verification has been performed and if the item is not correct, corrective actions will be performed.

Procedure

Condition(s) to perform this section:

- **Pre-OP4 or OP-4 actions are required to be taken.**

Section 1 : Pre-OP4 or OP-4 curtailments

Notes

- "Wheel Through External Transactions" are **NOT** included in the algorithm when curtailing external transactions during OP-4 conditions.
- External transactions identified as "Non-CSO" will be grey text. When these exports are properly backed in accordance with the ISO Tariff, Section III.1.10.7(i) (Market Rule 1), where the referenced Generator is on-line and SS to the MW value of the external transaction, will **NOT** be considered in the "Reserves" curtailment. Those **NOT** properly backed may appear in the "Reserves" curtailment:
  - Non-CSO exports backed by Generators that are **NOT** Self Scheduled (SS) to the MW value of the external transaction may be curtailed to the amount of the SS.
  - Non-CSO exports backed by Generators that are **NOT** on-line or on-line but **NOT** SS may be curtailed to zero.
- When there is a system wide capacity deficient condition, transaction sales that are properly backed will **NOT** be curtailed until load shed is being implemented.
- Pre-OP4 curtailments will affect RT Only external transactions.
- OP-4 curtailments will affect Day-Ahead external transactions.

Step 1.1

Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **For CTS Interface curtailments.**

Adjust the CTS Interface schedule using the "Reserve" algorithm.

Instructions

- ❑ Select the Interval to be curtailed from the dropdown menu on the NYN Scheduling display
- ❑ Click the "Reserve" button from the NYN Scheduling display;
- ❑ Select the Effective Minute for the curtailment;
- ❑ For **Pre-OP4** schedule adjustments:
  - ❑ If adjusting the schedule to the DBC or Zero:
    - ❑ Click the "Cut to Pre-OP4" button
  - ❑ If cutting only a portion of export contracts is desired:
    - ❑ Enter the MW amount into the "Cut MW" well;
    - ❑ Click the "Run" button to initiate the curtailment algorithm.
- ❑ For **OP-4** schedule adjustments:
  - ❑ Ensure the Pre-OP4 actions have been taken on the Non-CTS Interfaces;
  - ❑ If cutting export contracts upto the TTC In value:
    - ❑ Click the "Cut ALL" button;
  - ❑ If cutting only a portion of export contracts:
    - ❑ Enter the MW amount into the "Cut MW" well;
    - ❑ Click the "Run" button to initiate the curtailment algorithm.
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the NYN Scheduling display.

Notes

- If the "Total Exports" value is **red**, this indicates the amount of export transactions available to cut exceeds the import TTC. However, only the amount **UP TO** the TTC value will be cut by the algorithm.
- If the "MW to Day Before (or 0) value is **red**, this indicates there are not enough export transactions available to cut to the DBC.
- Clicking "Save" will generate an automated e-mail notification to the TSO Administrator. Upon receipt of this e-mail, the TSO Administrator will post a Notice to the ISO external website will notify market participants that curtailment of export transactions has been initiated IAW OP-9. Outside of normal business hours the notification will be posted on the following day.

Step 1.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **For Non-CTS Interface curtailments.**

Reduce Exports on the Non-CTS Interfaces.

Instructions

- ❑ Click the "Reserves" button from the RT Overview display;
- ❑ Ensure the appropriate interfaces are selected;
- ❑ Select "Within Interval" and the Effective Minute for the curtailment;
- ❑ Enter the MW amount to cut up to the TTC into the "Desired Cut MW" well;
- ❑ Click the "Run" button to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- If curtailments are for Pre-OP4 conditions: **DO NOT** enter a MW value that exceeds the RT Only amount available.
- If curtailments are for OP-4, Ensure the OP-4 actions on the CTS Interface are completed first.
- If curtailments are for OP-4, **DO NOT** enter a MW value that exceeds the total amount of RT Only plus DA priority available. An error message will be displayed with the amount of MW available if the value entered is greater than what is available.
- A future effective minute should be used so that it allows communication of the curtailments to be performed.
- Clicking "Save" will generate an automated e-mail notification to the TSO Administrator. Upon receipt of this e-mail, the TSO Administrator will post a Notice to the ISO external website which will notify market participants that curtailment of export transactions has been initiated IAW OP-9. Outside of normal business hours this notification will be posted on the following day.
- If the MW value of RT Only or DA Priority is red, that signifies that the TTC is restricting the amount contracts available to reduce.

Step 1.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Phase II is scheduled greater than its Day Before Checkout value and reducing flow will improve the reserve condition.**

Reduce RT Only imports on Phase II.

Instructions

- ❑ Click the "Largest Contingency" button from the HQ Non-CTS Interface Details display;
- ❑ Select "Within Interval"and an Effective Minute for the curtailment;
- ❑ Enter the MW amount to cut in the "Desired Cut MW" well, not to exceed the amount of RT Only available;
- ❑ Click "Run" to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the curtailments;
- ❑ Ensure the curtailments are implemented on the Non-CTS Interface Detail display.

Step 1.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Day Ahead exports have been curtailed for the first time for OP-4 Action 5.**

Log the Day Ahead curtailments.

Instructions

Use log entry: > INTERCHANGE SCHEDULING > DAY AHEAD CURTAILMENTS > Start

Step 1.5 Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **System conditions require an interface TTC to be reduced.**

Section 2 : Reduce a TTC on a Non-CTS Interface

Notes

- Marginal Capability is the available on-line resources and the off-line Fast Start resources. This does **NOT** include committing non-Fast Start off-line resources to support external transactions.
- An Interface TTC can be changed based on:
  - Reliability concern of another RC/BA;
  - Real-Time conditions on the New England System
  - Available import external transactions on Phase II currently exceeds the Single Source Contingency Limit (SSCL), determine if the SSCL can be increased using CROP.36004 Single Source Contingency
- 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. INT-006

Step 2.1 Primary Responsibility: Generation Operator

Perform TTC curtailments on a Non-CTS Interface.

Instructions

- ❑ Access the applicable Non-CTS Interface Detail display;
- ❑ Verify the scheduling hour in the left most column is the applicable HE and adjust the Hour Ending dropdown if needed;
- ❑ Right click on the applicable TTC direction;
- ❑ Select "Curtail TTC";
- ❑ Enter a New TTC value;
- ❑ Select the Effective Minute;
- ❑ Click the “Run” button to initiate the curtailment algorithm;
- ❑ Click the “Save” button to approve the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- When the curtailment is for reliability the effective minute for wheel transactions is the same as non-wheel transactions.
- It is not required to print the curtailments but the option is available if the Operator chooses. The curtailments will be available after saving them by right clicking on the applicable TTC on the Non-CTS Interface Detail display and selecting “View Last Curtailments”.

Step 2.2 Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **Phase II is required to be curtailed for reliability.**

Section 3 : Reduction of Phase II for reliability

Notes

- The loss of Phase II can be considered a limitation to NYISO or PJM.
- If NYISO considers a loss of Phase II limiting due to a problem on the NY Central East Interface or voltage problems at Rochester 345 kV and Oakdale 230/345 kV, NYISO will specify a MW level limit.
- If PJM considers a loss of Phase II limiting on their system, PJM will reduce the margin available above baseline for Phase II.

Step 3.1 Primary Responsibility: Generation Operator

Notify HQTE that a Phase II curtailment is being established due to an IROL exceedance.

Notes

- When the curtailment is due to an IROL exceedance, the HQ Operator will take all appropriate actions to implement the ramp as soon as possible without any intentional delays.
- If NYISO or PJM request Phase II transfer to be reduced, the Phase II reduction must be accomplished within ten (10) minutes from the time the request is made. Phase II ramp rate is limited to 99 MW/min.

Step 3.2 Primary Responsibility: Generation Operator

Notify HQTE of the new Phase II limitation.

Standard(s) for completion:

- 3-part communication is used.
- Checkout complies with requirements of INT-009.

Instructions

Include the following:

- ❑ New schedule;
- ❑ Effective minute of the new schedule;
- ❑ Ramp start time;
- ❑ Ramp duration.

Notes

Standards for completion were added based on the 2021 audit recommendations, and in response to a non-compliance response.

Step 3.3 Primary Responsibility: Generation Operator

Notify the Sandy Pond Operator of the schedule change.

Standard(s) for completion:

- 3-part communication is used.
- Checkout complies with requirements of INT-009.

Instructions

Include the following:

- ❑ New schedule;
- ❑ Ramp start time;
- ❑ Ramp duration.

Notes

- Standards for completion were added based on the 2021 audit recommendations, and in response to a non-compliance response.
- The reserve requirement will not be accounted for in APF-MOI until Phase II is at its new schedule. This should be considered prior to approving a UDS case with an inaccurate reserve requirement and/or reserve pricing.

Step 3.4 Primary Responsibility: Generation Operator

Enter and Implement the new interchange schedule.

Instructions

Perform the following on the EMS Interchange Scheduling display:

- ❑ Enter the Interchange Schedule;
- ❑ Enter the Ramp Start Time;
- ❑ Enter the Ramp Duration;
- ❑ Click the "Implement" button.

Step 3.5 Primary Responsibility: Generation Operator

Curtail the Phase II transactions using Section 2 of this procedure.

Condition(s) to perform this section:

- **Interface schedule needs to be increased in a specific direction and the interface has both Purchase and Sale external transactions currently scheduled.**

Section 4 : Directional curtailments on a Non-CTS Interface

Notes

If both "Purchase" and "Sale" transaction amounts for the appropriate interface are **NOT** available, the following actions may **NOT** be effective.

Step 4.1

Primary Responsibility: Generation Operator

Use the Directional algorithm to perform curtailments.

Instructions

- ❑ Access the applicable interface Non-CTS Interface Detail display;
- ❑ Click the "Directional" button;
- ❑ Select "Within Interval" and the Effective Minute for the curtailment;
- ❑ Select the Cut Direction from the dropdown menu;
- ❑ Enter the MW amount to cut into the "Desired Cut MW" well;
- ❑ Click the "Run" button to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- If the MW value entered is greater than the total MW amount available a pop-up warning of the overage will appear and no transactions will be listed.
- It is not required to print the curtailments but the option is available if the Operator chooses. The curtailments will be available after saving them by clicking on Directional dropdown on the Non-CTS Interface Detail display and selecting "Retrieve Last – Current" or "Retrieve Last – Selected"

Step 4.2

Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **System conditions require the MW value be modified within a scheduling interval.**

Section 5 : Curtail the CTS Interface net interchange schedule

Notes

For transmission reliability reasons, the CTS Interface schedule can be adjusted as necessary.

Step 5.1

Primary Responsibility: Generation Operator

If NYISO initiates the curtailments and they have been implemented in NYISO software, click the "Get NY Schedule" button to retrieve the curtailments.

Step 5.2

Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **CTS Interface net interchange was curtailed due to TTC change.**

Modify the applicable TTC.

Instructions

- ❑ Right click on the applicable TTC direction;
- ❑ Select "Edit";
- ❑ Ensure the pop up header states the applicable TTC direction "Adjust TTC_IN" or "Adjust TTC_OUT" for curtailment;
- ❑ Enter a new TTC value;
- ❑ Select the "To HE" value;
- ❑ Select a reason from the drop down;
- ❑ Enter an additional reason, if desired;
- ❑ Click "Apply".

Step 5.3

Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **For Reliability.**

Adjust the CTS Interface schedule using the "Cut for TTC" algorithm.

Instructions

- ❑ Select the Interval to be curtailed from the dropdown menu on the NYN Scheduling display;
- ❑ Click the "Cut for TTC" button from the NYN Scheduling display;
- ❑ Select the Effective Minute for the curtailment;
- ❑ Select the Cut Direction from the dropdown menu "Import" or "Export";
- ❑ Enter the MW amount into the "Cut MW well";
- ❑ Click the "Run" button to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the NYN Scheduling display.

Notes

- If the proper interval is selected, the "Within Interval" checkbox should already be set by the software.
- If the current schedule exceeds the TTC, the "Cut Direction" and "Cut MW" will pre-populate with the amount that needs to be cut to satisfy the TTC IN or TTC OUT.

Step 5.4

Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **An individual external transaction needs to be modified.**

Section 6 : Curtail individual transaction(s) on the Non-CTS Interfaces

Step 6.1

Primary Responsibility: Generation Operator

Curtail an individual external transaction on a Non-CTS Interface.

Instructions

- ❑ Access the applicable Non-CTS Interface Detail display;
- ❑ Verify the scheduling hour in the left most column is the applicable HE and adjust the Hour Ending dropdown if needed;
- ❑ Locate the external transaction;
- ❑ Right click on the "Sched Instant" value and select "Curtail ;
- ❑ Enter the applicable MW value in the "New MW" field;
- ❑ Select an Effective Minute;
- ❑ Select the applicable Reason;
- ❑ Enter information in the "Additional Reason" field if the selected reason is "Other";
- ❑ Click "Apply" to accept the modification;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- **DO NOT** enter a value greater than the Original Value.
- **DO NOT** enter a value greater than the "Submit" value.
- If a MW value greater than the "Submit" value is entered, the "SchedInstant" amount will be highlighted in red on the Non-CTS Interface Detail display.
- A future effective minute should be used so that it allows communication of the curtailments to be performed.
- The effective minute will either be a future effective minute or specified by the applicable RC/BA.

Step 6.2

Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **An individual external transaction needs to be modified.**

Section 7 : Curtail individual transaction(s) on the CTS Interface

Step 7.1 Primary Responsibility: Generation Operator

Adjust an individual transaction on the CTS Interface.

Instructions

- ❑ Select the applicable scheduling interval;
- ❑ Locate the applicable transaction to be modified;
- ❑ Right click on the "NE Sched" value and select "Edit";
- ❑ Enter the applicable MW value in the "New MW Value:" field;
- ❑ For Within Interval curtailements enter an "Effective Minute"
- ❑ Select the applicable Reason;
- ❑ Enter information in the "Additional Reason:" field if the selected reason is "Other";
- ❑ Click "Save" to accept the modification.

Step 7.2 Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Condition(s) to perform this section:

- **Minimum Generation Warning has been declared; Or**
- **Minimum Generation Emergency has been declared.**

Notes

- Minimum Generation Warning curtailments will affect RT Only external transactions.
- Minimum Generation Emergency curtailments will affect Day-Ahead external transactions.

Section 8 : Minimum Generation condition curtailments

Step 8.1

Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **For Minimum Generation Warning or Minimum Generation Emergency schedule changes.**

Adjust the CTS Interface schedule using the "Min Gen" algorithm.

Instructions

- ❑ Select the Interval to be curtailed from the dropdown menu on the NYN Scheduling display
- ❑ Click the "Min Gen" button from the NYN Scheduling display;
- ❑ Select the Effective Minute for the curtailment;
- ❑ For **Min Gen Warning** schedule curtailments:
  - ❑ If adjusting the schedule to the DBC or Zero:
    - ❑ Click the "Cut to MinGen Warn" button
  - ❑ If cutting only a portion of import contracts is desired:
    - ❑ Enter the MW amount into the "Cut MW" well;
    - ❑ Click the "Run" button to initiate the curtailment algorithm.
- ❑ For **Min Gen Emergency** schedule curtailments:
  - ❑ Ensure the Min Gen Warning actions have been taken on the Non-CTS Interfaces;
  - ❑ If cutting all import contracts up to the TTC Out value:
    - ❑ Click the "Cut ALL" button;
  - ❑ If cutting only a portion of import contracts:
    - ❑ Enter the MW amount into the "Cut MW" well;
    - ❑ Click the "Run" button to initiate the curtailment algorithm.
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the NYN Scheduling display.

Notes

- If the "Total Imports" value is **red**, this indicates the amount of export transactions available to cut exceeds the import TTC. However, only the amount **UP TO** the TTC value will be cut by the algorithm.
- If the "MW to Day Before (or 0) value is **red**, this indicates there are not enough export transactions available to cut to the DBC.

Step 8.2 Primary Responsibility: Generation Operator

Reduce Imports on the Non-CTS Interfaces.

Instructions

- ❑ Click the "Min Gen" button from the RT Overview display;
- ❑ Ensure the appropriate interfaces are selected;
- ❑ Select "Within Interval" and enter an Effective Minute for the curtailments;
- ❑ Enter the MW amount to cut up to the TTC into the "Desired Cut MW" well;
- ❑ Click the "Run" button to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the price tie curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- For Min Gen Warning **DO NOT** enter a value that exceeds the amount of RT Only available.
- If in Minimum Generation Emergency, Ensure the Min Gen Emergency actions on the CTS Interface are completed first.
- **DO NOT** enter a MW value that exceeds the total amount of RT Only plus DA available. An error message will be displayed with the amount of MW available if the value entered is greater than what is available.
- If the MW value of RT Only or DA Priority is red, that signifies that the TTC is restricting the amount contracts available to reduce.

Step 8.3 Primary Responsibility: Generation Operator

Perform notifications and implementation of affected interchange schedules using Section 9 of this procedure.

Section 9 : Notifications and Implementation of affected interchange schedules

Notes

Schedule change required notifications to LCCs:

CONVEX LCC Operator is notified for the following:

- NYN tie change greater than or equal to 500 MW; Or
- NNC tie change greater than or equal to 100 MW; Or
- CSC tie change greater than or equal to 200 MW.

Maine LCC Operator is notified for the following:

- NB tie change greater than or equal to 200 MW when the current Interface schedule is less than or equal to 700 MW; Or
- NB tie change greater than or equal to 100 MW when the current Interface schedule is greater than 700 MW

NH LCC Operator is notified for the following:

- Blocking of Phase II;
- De-Blocking of Phase II.

Step 9.1 Primary Responsibility: Generation Operator

Notify each adjacent RC/BA that has an external interface with external transaction(s) that are to be curtailed.

Standard(s) for completion:

- 3-part communication is used.
- Checkout complies with requirements of INT-009.

Instructions

The following details shall be agreed to:

- ❑ Effective minute of transaction curtailment;
- ❑ Particular transaction(s) being curtailed;
- ❑ New instantaneous value for each external transaction is being curtailed;
- ❑ New interface instantaneous value;
- ❑ New interface integrated value;
- ❑ Ramp Start Time, unless interchange interface was already implemented due to reliability in Section 3;
- ❑ Ramp Duration, unless interchange interface was already implemented due to reliability in Section 3.

Notes

Standards for completion were added based on the 2021 audit recommendations, and in response to a non-compliance response.

Step 9.1.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **The curtailment includes one or more wheel transactions.**

Notify the applicable source and/or sink RC/BA of the wheel transaction curtailment.

Standard(s) for completion:

- 3-part communication is used.

Instructions

Include the following:

- ❑ Particular transaction(s) being curtailed;
- ❑ Start time of curtailment;
- ❑ If the in-hour curtailment has occurred more than 25 minutes past the hour and the curtailment will carry into the next hour.

Step 9.2 Primary Responsibility: Generation Operator

Enter and implement the new interface schedule.

Instructions

Perform the following on the EMS Interchange Scheduling display:

- ❑ Enter the Interchange Schedule;
- ❑ Enter the Ramp Start Time;
- ❑ Enter the Ramp Duration;
- ❑ Click the "Implement" button.

Notes

- If the curtailment originated due to Section 3 Reduction of Phase II for reliability, verify the values in the EMS Interchange Scheduling display are correct based the agreed upon values in Step 9.1.
- If a previously agreed upon ramp has not begun and a new ramp schedule is sent to IFS, the old schedule will be overwritten.

Step 9.2.1 Primary Responsibility: Generation Operator

Notify the Loader Operator of the schedule implementation.

Step 9.2.1.1 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **An applicable interface schedule changed.**

Update the PCEC for the schedule change.

Step 9.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Phase II schedule is curtailed; Or**
- **Highgate schedule is curtailed; Or**
- **CSC schedule is curtailed.**

Notify the converter Operator of the schedule change.

Standard(s) for completion:

- 3-part communication is used.

Instructions

Include the following:

- ❑ New schedule;
- ❑ Ramp start time;
- ❑ Ramp duration.

Notes

- For Phase II changes: notify Sandy Pond.
- For Highgate changes: notify VELCO.
- For CSC changes: notify CSC Operator.

Step 9.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Schedule change requires notification to an LCC.**

Notify the applicable LCC Operators of the schedule change.

Step 9.5 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Future interchange schedules had already been sent to the Interchange Scheduling display; And**
- **A schedule with the curtailment for the current hour has been entered and has started ramping.**

Send next interval's schedules to the EMS Interchange Scheduling display using the "Send to IFS" button.

Notes

If a previously entered ramp has not started and a new ramp schedule is sent to IFS, the old schedule will be overwritten.

Step 9.6 Primary Responsibility: Generation Operator

Log the curtailment of transactions.

Instructions

- ❑ For Pre-OP4 actions for the first time:
  - ❑ Use log entry: > INTERCHANGE SCHEDULING > PRE OP4 CURTAILMENTS > Start
- ❑ For all other curtailments:
  - ❑ > INTERCHANGE SCHEDULING > Interchange Cuts – NYN
  - ❑ > INTERCHANGE SCHEDULING > Interchange Cuts

Notes

There may be instances where the same curtailment may require more than one log entry. It is important for tracking and communication purposes to make all applicable log entries.

Step 9.7 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **External transaction schedule change ramp is complete.**

Verify that actual interchange MW coincides with scheduled interchange MW.

Condition(s) to perform this section:

- **A minimum flow requirement exists from NB to NE and current flow is less than the minimum flow value.**

Section 10 : Actions to satisfy NB to NE minimum flow requirements.

Notes

- This section only addresses the NB to NE minimum flow requirements. As defined in the Tariff SETs can only be used for NB to NE.
- After exhausting no-cost methods the following actions are taken in order to prevent or correct a potential IROL or satisfy a minimum flow requirement.
- NBP-SO operates with a 50MW adder above any IROL limit to provide for operating margin, schedules should be set to include this buffer.

Step 10.1

Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Current schedule is an export to NB.**

Curtail the NB Export TTC to zero.

Instructions

- ❑ Access the NB Non-CTS Interface Detail display;
- ❑ Right clicking on the applicable TTC direction;
- ❑ Selecting "Curtail TTC";
- ❑ Entering a New TTC value;
- ❑ Select the Effective Minute;
- ❑ Click the “Run” button to initiate the curtailment algorithm;
- ❑ Click the “Save” button to approve the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- When the curtailment is for reliability the effective minute for wheel transactions is the same as non-wheel transactions.
- It is not required to print the curtailments but the option is available if the Operator chooses. The curtailments will be available after saving them by right clicking on the applicable TTC on the Non-CTS Interface Detail display and selecting “View Last Curtailments”.

Step 10.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **The NB Interface has both Purchase and Sale external transactions.**

Curtail "Export" transactions necessary to satisfy the minimum flow requirement.

Instructions

- ❑ Access the NB interface Non-CTS Interface Detail display;
- ❑ Click the "Directional" button;
- ❑ Select "Within Interval" and the Effective Minute for the curtailment;
- ❑ Select the Cut Direction from the dropdown menu;
- ❑ Enter the MW amount to cut into the "Desired Cut MW" well;
- ❑ Click the "Run" button to initiate the curtailment algorithm;
- ❑ Click "Save" to accept the curtailments;
- ❑ Verify the curtailment changes are automatically implemented on the Non-CTS Interface Detail display.

Notes

- If the MW value entered is greater than the total MW amount available a pop-up warning of the overage will appear and no transactions will be listed.
- It is not required to print the curtailments but the option is available if the Operator chooses. The curtailments will be available after saving them by clicking on Directional dropdown on the Non-CTS Interface Detail display and selecting "Retrieve Last – Current" or "Retrieve Last – Selected"

Step 10.3 Primary Responsibility: Generation Operator

Enter and implement the new interface schedule.

Instructions

Perform the following on the EMS Interchange Scheduling display:

- ❑ Enter the Interchange Schedule;
- ❑ Enter the Ramp Start Time;
- ❑ Enter the Ramp Duration;
- ❑ Click the "Implement" button.

Notes

If a previously agreed upon ramp has not begun and a new ramp schedule is sent to IFS, the old schedule will be overwritten.

Step 10.3.1 Primary Responsibility: Generation Operator

Notify the Loader Operator of the schedule implementation.

Step 10.3.1.1 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- **An applicable interface schedule changed.**

Update the PCEC for the schedule change.

Step 10.3.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Schedule change requires notification to an LCC.**

Notify the Maine Operator of the schedule change.

Step 10.3.3 Primary Responsibility: Generation Operator

Log the curtailment of transactions.

Instructions

Use log entry: > INTERCHANGE SCHEDULING > Interchange Cuts

Notes

There may be instances where the same curtailment may require more than one log entry. It is important for tracking and communication purposes to make all applicable log entries.

Step 10.3.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **External transaction schedule change ramp is complete.**

Verify that actual interchange MW coincides with scheduled interchange MW.

Step 10.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **The NB Interface does NOT have both purchase and sale external transactions; Or**
- **Further actions are required to satisfy the NB to NE minimum flow requirement.**

Perform the following:

- ❑ **Request SETs (Step 10.5)**
- ❑ **Schedule CA to CA Security with NB (Step 10.6)**

Notes

- OOM Import External transactions will not be scheduled in hour.
- SETs are Market Participant submitted external transactions and will **NOT** be immediately available. When SETs are **NOT** available Control-Area-to-Control-Area Security Energy (CA to CA Security) is used with NB to meet minimum flow requirements when submitted external transactions are **NOT** sufficient to meet the minimum flow requirement into ISO-NE.

Step 10.5 Primary Responsibility: Senior System Operator

Requesting SETs.

Step 10.5.1 Primary Responsibility: Senior System Operator

Log the SET Request.

Instructions

Use log entry: > INTERCHANGE SCHEDULING > NB SETs > SET Request [WEB] [E]

Enter the following:

- ❑ Start date and time;
- ❑ Expected End date and time;
- ❑ MW amount;
- ❑ Reason.

Notes

This log entry will create a posting of the SET Request to the ISO-NE website calendar; the posting may take up to five minutes.

Step 10.5.2 Primary Responsibility: Operations Shift Supervisor

Ensure the notice has been posted to the "Calendar" section of the external website.

Instructions

If the notification to the external website has **NOT** been posted, notify Customer Support to post a message "Special Request for Security Energy Transactions" to the "Calendar" section of the external Website.

Website Link: Website Calendar

Step 10.6 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Curtailment of export external transactions to NB has been exhausted and the NB to NE minimum flow requirement has NOT been met.**

Scheduling CA to CA Security with NB.

Step 10.6.1 Primary Responsibility: Generation Operator

Coordinate with NBP-SO to agree upon a MW value of CA to CA Security.

Standard(s) for completion:

- 3-part communication is used.
- Checkout complies with requirements of INT-009.

Instructions

Agree upon the following:

- ❑ Effective minute;
- ❑ Ramp start time;
- ❑ Ramp duration.

Notes

Standards for completion were added based on the 2021 audit recommendations, and in response to a non-compliance response.

Step 10.6.2 Primary Responsibility: Generation Operator

Enter the agreed upon MW value into the "Sched Instant" well for the "CA-CA SET" generic tag for the current hour.

Instructions

- ❑ Right click on the "Sched Instant" well;
- ❑ Select "Curtail MW"
- ❑ Enter the "New MW" value;
- ❑ Select the effective minute;
- ❑ Select the Reason;
- ❑ Enter clarifying information in "Additional Reason" if needed.

Notes

If the value entered is greater than the value submitted there will be a pop-up presented to the Operator that will notify them of the condition and should continue scheduling the CA-CA Security transaction.

Step 10.6.3 Primary Responsibility: Generation Operator

Enter the schedule in the "Emerg" row for NB on the Interchange Scheduling display.

Instructions

Perform the following on the EMS Interchange Scheduling display:

- ❑ Enter the Interchange Schedule;
- ❑ Enter the Ramp Start Time;
- ❑ Enter the Ramp Duration;
- ❑ Click the Implement button.

Step 10.6.4 Primary Responsibility: Generation Operator

Log the scheduling of CA to CA Security.

Instructions

Use log entry: > INTERCHANGE SCHEDULING > NB SETs > SET Scheduled [E]

Enter the following:

- ❑ SET Type: > CA to CA;
- ❑ Start Time;
- ❑ Scheduled MW amount.

Step 10.6.5 Primary Responsibility: Generation Operator

Notify the Loader Operator of the schedule implementation.

Step 10.6.5.1 Primary Responsibility: Loader Operator

Update the PCEC for the schedule change.

Step 10.6.6 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- **Schedule change requires notification to an LCC.**

Notify the Maine Operator of the schedule change.

Step 10.7 Primary Responsibility: Operations Shift Supervisor

Condition to perform this step:

- **NBP-SO is unable to provide CA to CA Security energy, and transfer capability remains available on the applicable interface lines.**

Discuss with the NBP-SO the ability to procure additional energy to supply the CA to CA Security energy.

Notes

NBP-SO may have the ability to increase imports using their HVDC ties with HQ, or by procuring additional transfers from adjacent BAs. These possibilities should be pursued.

Condition(s) to perform this section:

- **Recevied notification of a TLR from the Forecaster; Or**
- **Received notification that the IDC software auto-acknowledge feature has been disabled.**

Section 11 : Respond to a TLR notification.

Notes

To satisfy NERC Standard IRO-006-EAST - Transmission Loading Relief Procedure for the Eastern Interconnection, the Interchange Distribution Calculator (IDC) software is monitored by the Forecaster and external transactions impacted by TLRs are communicated to the Generation Operator and Senior System Operator. The forecaster is alerted by the IDC when there is a new TLR which and then auto-acknowledged by the IDC software. The Forecaster will then communicate to the Generation Operator and Senior System Operator any transaction associated with the TLR, amount of MW to curtail and curtailment Hour Ending. If the auto-acknowledge feature is disabled in the IDC software, the TLRs will be monitored manually by the Forecaster.

Step 11.1

Primary Responsibility: Senior System Operator

Condition(s) to perform this step:

- **Notification of a TLR by the Forecaster.**

Instruct the Generation Operator to curtail the identified transaction(s) using Section 6 or Section 7 as applicable.

Step 11.2

Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- **Notified that the IDC software auto-acknowledge feature has been disabled.**

Direct the Forecaster to manually monitor for TLRs in the IDC software.

Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
--	07/20/21	For previous revision history, refer to Rev 16 available through Ask ISO	Steven Gould
17	10/04/21	Added INT-009 Language to Procedure Background, updated References Section, added Statndard for Completion and reference Notes to each checkout Step to address INT-009 R1 non-compliance submittal. Added logging requirement for Pre-OP4 curtailments in section 9.	Steven Gould
18	12/07/21	Updated section 4 to align language used REX.	Steven Gould
19	06/03/22	Updated procedure for REX2, Changed Phase 2 to Phase II where applicable; Added Notes to Section 1. Re-formatted Section 10 to contain all the applicable previously referred to sections within Section 10.	Jonathan Gravelin
20	06/30/22	Modified Step 9.1.1	Jonathan Gravelin
21	08/10/22	Condensed steps into instructions for Sections 1, 3, 5, 6, 7, 8 & 10, re-ordered Steps 2.3 & 2.4	Jonathan Gravelin
22	12/13/22	Modified Section order; Modified Section Titles; Modified Step 9.6; Deleted Step 7.4 due to logging step already captured in Section 9, Deleted log entries from Step 10.3.3 as they did not pertain to this Section.	Jonathan Gravelin
23	01/31/23	Added step 1.4 with REX2 software update; Added Steps 5.10 & 7.3	Jonathan Gravelin
24	04/17/23	Deleted Step 1.3 & 8.3 with REX2 software update.	Jonathan Gravelin
25	06/12/23	Updated Procedure Background, Added Section 11; Modified Condition To Enter in Section 6 and 7; Added Instructions to Steps 2.1 & 6.1.	Jonathan Gravelin
26	6/20/24	Modified Section 5 & 7 with new CTS software deployment	Jonathan Gravelin