	CROP.36004 Single Source Contingency	
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Rev # 9	Procedure Owner: Manager, Control Room Operations	Valid Through: 12/06/2025

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References

1. ISO New England Tariff Attachment G – Procedure to Protect for Loss of Phase II Imports
2. Procedure to Protect for Loss of Single Source Contingency Guide
3. CROP.31001 Scheduling External Transactions
4. CROP.31002 Curtailing External Transactions
5. CROP.25007 Manual Dispatch

Procedure Background

PJM cannot request a base limit lower than 1,200 MW. The typical base value is 1,400 MW.

NYISO cannot request a Single Source Contingency Limit (SSCL) lower than 1,200 MW.

NOTE: NYISO studies currently establish a base SSCL of 1,320 MW. This value is subject to change based on future study results but will never be less than 1,200 MW.

PJM Margin: the margin authorized by PJM; with the typical PJM base limit of 1,400 MW the margin can range from 0 to 600 MW. The maximum amount of margin authorized is based on **NOT** exceeding the 2,000 MW Phase II import limit.

PJM Margin Sensitivities are 1, unless the NY 5018 line (Ramapo - Hopatcong) is OOS

If the NY 5018 line is OOS, the PJM Eastern Interface margin sensitivity factor is set to 0.67.

NY margin is based on post contingent voltages at Rochester and Oakdale. The margin sensitivity is **NOT** changed based on system conditions as is PJM.

The NY margin sensitivities are set as follows:

Rochester 345 kV: “R345” - 2

Oakdale 345 kV: “O345” - 1

Oakdale 230 kV: “O230” - 0


The SSCM and MGC/MAMGC displays will use a 0.33 distribution factor for all monitored contingencies onto the NY Central East Interface (NYISO C/E Interface).

The NYISO Central East (C/E) Interface displays two “Post Contingency Transfer Level” limits; one limit “w buffer” includes a buffer and the other limit “w/o buffer” does **NOT** include a buffer.

When the “w/o buffer” limit is exceeded, an IROL alarm will be created on the ICM SSCM page. When the “w buffer” limit is exceeded a System Activity alarm will be created.


The NY C/E Interface limit has a “Select to Override” button that can be used to override the calculated limit with a limit that is provided by the NYISO.

On the “Single Source Contingency” page, there are “Select to Disable” buttons that can be selected to have the ICM SSCM ignore any of the displayed contingencies.

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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 communications.
- F. Primary responsibilities are stated for each step within the procedure, but any ISO System Operator qualified at that position or higher can perform the step.
- 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.

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Procedure

Condition(s) to perform this section:

- A new SSCM Limit has been entered, requiring the reduction of one or more source contingencies; Or
- A resource is capable of or expected to exceed 1,200 MW; Or
- A resource or Phase II is capable of or expected to exceed the current single source contingency MW amount.

Section 1 : Notifications for a change in the Single Source Contingency MW Size

Step 1.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- A resource is capable of or expected to exceed the current Single Source Contingency limit imposed by NYISO.

Contact the NYISO System Operator and request to increase the ISO-NE Single Source Contingency MW amount that would allow utilization of the resource or Phase II.

Instructions

- ☐ Evaluate resources as follows:
 - ☐ Evaluate large resources that are raising MW output to ensure sufficient margin exists for the highest expected output or dispatchable range prior to exceeding the Single Source Contingency Limit.
 - ☐ Evaluate NY C/E and PJM margin when scheduling Phase II on the Single Source Contingency Monitor to determine if a higher schedule may be allowable.
 - ☐ If margin appears to be available, consult with Senior System Operator or Shift Supervisor prior to contacting NYISO or PJM to request higher margin.

Step 1.1.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- NYISO imposed a C/E Interface limit.

Modify the NYISO C/E Interface limit using [Section 3](#)

Step 1.1.2 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- NYISO has denied a requested increase in the C/E limit.

Log the denial of additional NYISO C/E Margin.

Instructions


- ☐ Use log entry:
 - ☐ > COMMUNICATION > Change in NYISO limits denied
 - ☐ Enter reason for denial if known.

Step 1.2 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- A resource is capable of or expected to exceed the current Single Source Contingency Limit imposed by PJM.

Contact the PJM System Operator and request an amount of margin that will allow full utilization of the resource or Phase II.

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Step 1.2.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- The authorized PJM margin amount changed.

Modify the PJM margin value using [Section 2](#).

Step 1.2.2 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- PJM has denied a requested increase in margin

Log the denial of additional PJM Margin.

Instructions

- ☐ Use log entry:
 - ☐ > COMMUNICATION > Change in PJM Margin denied
 - ☐ Enter requested margin and reason for denial if known

Step 1.3 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- A new SSCM Limit has been entered, requiring the reduction of one or more source contingencies.

Determine if any resource restrictions are required based on any limitations from NYISO or PJM.

Step 1.3.1 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- Generator, or multiple generators capable of being a single source, are capable of output greater than the SSCL.


Restrict a generator due to a SSCL.

Instructions

- ☐ Perform the following:
 - ☐ Notify the DE of the SSCL
 - ☐ Provide the DE a MW limit of approximately 10 MW below the SSCL per resource to allow for variance in resource output.
 - ☐ If the resource is operating above the limit, enter a manual DDP to below the determined maximum.
 - ☐ Enter an ISO Imposed Eco Max redeclaration for the remainder of the operating day, or a longer period as appropriate using CROP.36002.
 - ☐ For multiple units, susceptible to simultaneous loss and therefore treated as a single contingency, allow the DE to determine how to apply the limit among their resources.

Notes

- The DE may not immediately provide the allocated limits amongst their resources. Do not delay the dispatch of the resource(s) and dispatch them to below the SSCL; advise the DE to call back with updated limits.
- Redclarations should **NOT** be carried into the next operating day until both of the following conditions have been met:
 - The “SCRA B” has been approved at approximately 2300
 - The Forecaster has been notified

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Step 1.3.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Current interval external interface schedule is greater than the SSCL.

Set the import Total Transfer Capability (TTC) to the SSCL for the current interval.

Instructions

Using CROP.31002 Curtailing External Transactions as appropriate to reduce the schedule to the SSCL.

Step 1.3.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Next interval external interface schedule has been finalized and is greater than the SSCL.

Set the import TTC to the SSCL for the next interval.

Instructions

Using CROP.31001 Scheduling External Transactions, schedule the limited interface with the lowered TTC.

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Condition(s) to perform this section:

- The authorized PJM margin amount has changed; Or
- The NY – 5018 line has been removed from service; Or
- The NY – 5018 line has been restored to service.

Section 2 : Modify the PJM SSCM calculation parameters.

Step 2.1 Primary Responsibility: Any Control Room Operator

Notify all Control Room Operators of the PJM limit change.

Step 2.2 Primary Responsibility: Any Control Room Operator

Access the SSCM display.

Step 2.3 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- PJM has changed the value of authorized margin.

Enter the authorized PJM margin value in the well for each PJM Interface on the ICM Display

Step 2.4 Primary Responsibility: Any Control Room Operator

Condition(s) to perform this step:

- The NY – 5018 line is being removed from or returned to service.

Modify PJM Margin sensitivity

Instructions

- ☐ For NY – 5018 line going out-of-service:
 - ☐ Enter a sensitivity of 0.67 in the “Margin Sens.” well for the PJM East interface on the ICM SSCM Display
- ☐ For the NY – 5018 line returning to service:
 - ☐ Enter a sensitivity of 1.00 in the “Margin Sens.” well for the PJM East interface on the ICM SSCM Display


Step 2.5 Primary Responsibility: Any Control Room Operator

Log the PJM margin change.

Instructions

- ☐ Use log entry:
 - ☐ > COMMUNICATION > Change in PJM Margin
 - ☐ Enter new PJM margin

[Return to Section 1](#) - Notifications for a change in the Single Source Contingency MW Size

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Condition(s) to perform this section:

- NYISO has imposed a limit for the C/E Interface.

Section 3 : Modify the NYISO C/E Interface limit.

Step 3.1 Primary Responsibility: Any Control Room Operator

Notify all Control Room Operators of the NYISO C/E Interface limit change.

Step 3.2 Primary Responsibility: Any Control Room Operator

Access the SSCM display.

Step 3.3 Primary Responsibility: Any Control Room Operator

Toggle the "Override" for the "w buffer" and "w/o buffer".

Step 3.4 Primary Responsibility: Any Control Room Operator

Enter the value provided by NYISO in both override wells.

Step 3.5 Primary Responsibility: Any Control Room Operator

Log the NYISO C/E Interface limit change.

Instructions

- ☐ Use log entry: > COMMUNICATION > Change In NYISO Limits
- ☐ Enter limit communicated by NYISO

[Return to Section 1](#) -Notifications for a change in the Single Source Contingency MW Size

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Condition(s) to perform this section:

- PJM notifies ISONE that the base limit needs to be modified.

Section 4 : Modify the PJM base limit.

Step 4.1 Primary Responsibility: Any Control Room Operator

Notify all Control Room Operators of the PJM base limit change.

Step 4.2 Primary Responsibility: Any Control Room Operator

Access the SSCM display.

Step 4.3 Primary Responsibility: Any Control Room Operator

Enter the provided base limit value.

Step 4.4 Primary Responsibility: Any Control Room Operator

Notify the Market Administration group.

Notes

Point of contact is the Market Admin on-call.

Step 4.5 Primary Responsibility: Any Control Room Operator

Log the PJM base limit changes.

Instructions

- ☐ Use log entry: > COMMUNICATION > Change in PJM Base Limit
- ☐ Enter New Base Limit value

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Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
0	07/10/15	Initial revision of this Procedure	Steven Gould
1	04/29/16	Deleted listed contingencies	Steven Gould
2	09/06/16	Modified step 1.3.2 and 1.3.3 for setting TTC limit	Steven Gould
3	10/11/17	Administrative update for format	Steven Gould
4	01/18/18	Enhancement to language in Section 1	Steven Gould
5	12/26/19	Biennial Review Updated formatting and evaluated Notes and Instructions	Steven Gould
6	01/30/20	Section 1 updated to better reflect current process	Steven Gould
7	08/19/21	Updated References, Common Procedure Information, fixed Hyperlinks and corrected CROP title names in Step 1.3.2 and 1.3.3	Steven Gould
8	08/30/22	Updated background information to reflect current control room practices. Added instructions to step 1.1 to reflect management expectations. Added Step 1.1.2 and Step 1.2.2, .Updated step 1.3.1, 1.3.2, and 1.3.3 with CROP references. Modified section 2 for clarity. Adjusted logging requirements of section 3 and 4 to reflect OPRALOG.	Jonathan Gravelin
9	12/05/23	Updated Procedure Background to reflect new sensitivity change in EMS; added Note to Step 4.4.	Jonathan Gravelin