SOP-OUTSCH.0030.0040 - Perform Long Term Resource Outage Coordination

Contents

1. Objective

The objectives of this procedure are:

1. To document the responsibilities of ISO New England (ISO) staff assigned to the Resource Outage Coordination group who evaluate each long-term or Planned Resource outage request.

2. To explain how to perform Operable Capacity (OPCAP) analysis using the Long Term Operable Capacity Margin (LTOCM) calculation.

3. To explain how to produce, update and manually publish the Annual Maintenance Schedule (AMS) reflecting approved Resource outages, if needed.

4. To describe how to produce the monthly System & Market Operations (SMO) Report, which was formerly known as the COO Report.

This procedure does **not** in any way change the intent of ISO New England Operating Procedure No. 5 - Resource Maintenance and Outage Scheduling (OP-5) but rather is intended to clarify the responsibilities delegated to the ISO staff by OP-5.

Compliance with this procedure is necessary for reliable operation of the Bulk Electric System (BES). The actions described in this procedure can affect market operations and settlements.

2. Background

A Resource Planned Outage (PO) is submitted into the ISO Outage Scheduling software. The Resource Outage Coordination group studies and schedules the Resource maintenance outage in accordance with OP-5. Whenever possible, a PO will be coordinated to reduce congestion costs.

OP-5 and ISO New England Manual for the Forward Capacity Market (FCM) Manual M-20 (Manual M-20) describe the submittal and evaluation of outage requests. SOP-OUTSCH.0030.0010 - Evaluate Resource Outage Requests details the process used by ISO in evaluating Resource outage requests.

The approved Resource outage requests are compiled and the information processed to produce the AMS in accordance with this procedure.

3. Responsibilities

NOTE

For the purposes of this procedure, a long term Resource outage request or PO is defined as an outage request submitted to ISO greater than or equal to 15 days before the proposed outage start date.

1. In conjunction with the Local Control Centers (LCCs) and Resource Lead Market Participant (Lead MP) (or designee), the Director, Operations Support Services (OSS) is responsible for verifying actions specified in this procedure are adhered to for the mitigation of risk.

2. The Manager, Resource Outage Coordination is responsible for creating and responding to relevant Application Modification Requests (AMRs) while developing corrective actions to resolve inconsistencies within data, procedures, and software.

3. The Resource Analyst (RA) is responsible for conducting seasonal assessments that identify forecasted transmission system reliability, operating risks and capacity margins for both local and system requirements. The assessments are consistent with the established North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council, Inc. (NPCC) Winter and Summer assessments.

4. The RA is responsible for:

   - Overseeing the Resource outage request submittal process
   - Coordinating each Resource outage request with the applicable LCC
   - Assessing each Resource outage request (including all reliability and OPCAP reviews)
   - Monitoring the GenerationOutageCoor@iso-ne.com mailbox (shared amongst all Outage Coordinators) and performing any action(s) as required by those e-mails
   - Manually publishing the AMS, if required
   - Preparing the monthly SMO Report
   - Performing OPCAP analyses
   - Notifying the applicable Lead MP of any scenario that may affect their Resource's output
   - Conducting transmission system reliability analysis and forecasting capacity margins for both local and system requirements and assisting in identification of potential operational risks when forecasting system conditions.

4. Controls

1. A Lead MP receives only the outage data pertaining to the Resource for which it is the Lead MP.

2. The Manager, Resource Outage Coordination responds to relevant AMRs and performs corrective actions that are required to resolve discrepancies.

3. The Manager, Resource Outage Coordination supports monthly meetings as needed to respond to relevant AMRs and other discrepancies and to identify corrective actions.

4. Resource outage requests are evaluated using appropriate tools for analysis such as:

   A. ISO Outage Scheduling software

   B. Energy Management System (EMS)

   C. LTOCM software

5. ISO personnel performing a Resource outage request evaluation is designated by the Director, OSS.

6. ISO outage request processing is performed in accordance with the times specified in OP-5.

7. Submitted and evaluated POs are stored in the ISO Outage Scheduling software.

8. Peer reviews from:

   A. Outage Coordination Working Group (OCWG)

   B. MLCC Heads

   C. Operations Support Services staff

   D. Control Room Operators

5. Instructions

5.1 Resource PO Request Submittal and Assessment Process

5.1.1 Resource PO Request Submittal

1. In accordance with OP-5 and in the time frames indicated, each Resource Lead MP (or designee) shall perform the following:

   A. Submit each Resource PO request in the ISO Outage Scheduling software

   B. Provide all information required

2. To submit the Resource PO request:

   A. Each Lead MP shall enter all the applicable information into the ISO Outage Scheduling software.

      (1) Outage Priority

      (2) Impacted Market Asset

      (3) Planned Start Time

      (4) Planned End Time

      (5) Outage Cause

      (6) Constraint Type [Out-of-service (OOS) or Reduction]

      (7) Amount of MW OOS or reduced

      (8) Description of work to be performed

      (9) If the Resource is a Blackstart Resource, determine if the Resource will provide Blackstart Capability during the outage

> **NOTE**
>
> When an outage request has been entered into the ISO Outage Scheduling software it is in the Preliminary state and is available for the applicable LCC review.

   B. The applicable LCC shall determine if the Resource is required for either reliability or capacity in the applicable LCC local area.

(1) If the LCC determines the Resource outage is allowed to proceed, the LCC shall approve the outage request and the outage request enters the "Submitted" state and is available for ISO review.

(2) If the LCC determines it **cannot** allow the Resource outage to proceed, the LCC shall deny the outage request and ISO takes **no** action on the outage request.

3. When a Resource outage request is submitted into the ISO Outage Scheduling software by the LCC, the RA shall perform an assessment of the PO request that includes the following:

   A. A calculation of the New England Capacity Margin using the LTOCM software

      (1) If this calculation determines that the Capacity Margin will become negative due to the PO under evaluation, at any time during the duration of the PO, the PO shall be Denied.

   B. An evaluation of each Resource PO in an import or export constrained area for local capacity needs and/or in an area sensitive to local Resources for voltage.

   C. A transmission assessment for each Resource PO, in accordance with the requirements of SOP-OUTSCH.0030.0025 - Perform Long Term Outage Coordination Transmission Confidential.

   D. Verify the Planning Department has approved any request to remove/replace an Automatic Voltage Regulator (AVR) or a Power System Stabilizer (PSS) and forward the request to the Real-Time Studies group for technical and voltage evaluation during the outage period.

5.1.2 Evaluate, Approve and Deny Resource Outage Request

NOTE

Based on OP-5, the RA evaluates each Resource PO request submitted to ISO by an LCC for up to two years in advance. For a Resource outage request to be considered a PO, the outage request must be submitted by the Lead MP in the ISO Outage Scheduling software at least 15 calendar days in advance of the PO start date.

1. The RA shall use the priority dates to determine the sequence used to evaluate Resource PO requests.

2. The RA shall change the status of the Resource PO request from "Submitted" to "Study" as follows:

A. Sort the Resource POs in ascending "Priority Date" to display the order in which they are to be processed.

B. Open the Resource PO request with the highest priority.

C. Select the "Check Conflict" button to see if there is a transmission or Resource outage that conflicts with the PO request.

(1) If there is a conflict with a transmission outage, contact the Transmission Outage Coordination (TOC) group for guidance.

(2) If the conflict is with a Resource outage, perform the necessary evaluation and determine if the current Resource PO is to be Approved or Denied.

(3) If the conflict is due to a system restoration issue, remediate the issue through the steps outlined in M/LCC7.

3. The RA shall identify any system reliability effects of a submitted Resource PO request that is related to currently approved Resource POs.

4. If the proposed Resource PO conflicts with another Approved, or Implemented Resource PO or Transmission Outage Request and **cannot** be approved by ISO, the RA shall:

A. Notify the Lead MP of the conflict

B. Negotiate a more favorable timeframe

C. Coordinate with the applicable LCC to ensure new date/time satisfies all reliability requirements

5. To re-evaluate a new timeframe, the RA shall open the ISO Outage Scheduling software and perform the following:

A. Place the proposed Resource PO in "Negotiate"

B. Repeat steps 5.1.2.4.A and 5.1.2.4.B for the new dates.

NOTE

Per OP-5, whenever possible, transmission and Resource outages will be coordinated to reduce Congestion Costs. For importing areas, an economic Resource within that area should **not** be scheduled for an outage simultaneously with any transmission facilities that significantly support area import capability. For an exporting area, a Resource outage within that area should be coordinated coincident with the outage of transmission facilities that significantly support that area's export capabilities.

An example of a Resource PO conflict with a transmission facility outage is when any transmission outage requires a Resource being proposed for that outage to be on-line or to be a Must Run.

6. The RA shall update the Reliability Review section in the proposed Resource outage request as follows:

   A. Select the "Studies" tab.

   B. Enter notes in the Reliability Review section. If there were reliability implications, describe why the outage was allowed to proceed and any coordination efforts taken.

7. The RA shall conduct an OPCAP assessment on the proposed Resource outage request as follows.

   A. With the Access Rights of a business user, open LTOCM.

   B. Use LTOCM to calculate the Long-Term Capacity Margin locating at the top of the screen and selecting the "Create New Case" icon.

NOTE

A new case is to be created with the start date and end date for the period to be evaluated [usually the period to be evaluated is from today (i.e., the start date) to 2 years out (i.e., the end date)]

   C. To evaluate the pending Resource outage request, select the 50-50 Peak Load Exposure (PLE) Demand Forecast.

      (1) Under "Case Name", name the case.

      (2) Select the "Create New Case" icon.

   D. To evaluate an outage, verify Pending Outages on the "Study Type" drop down menu display

(1) Enter the start date and end date for the period to be evaluated [usually the period to be evaluated is from today (i.e., the start date) to 2 years out (i.e., the end date)].

(2) Under the "Include Outage Option" drop down menu, verify "Max Outage Per Day" is displayed.

NOTE

The "Load Case Inputs" button will gather outage data from the ISO Outage Scheduling software and Resource/Asset CSO data from the Forward Capacity Tracking System (FCTS).

E. Select the "Load Case Inputs" button and after verifying the case inputs have been loaded, select "Run Study" to run the case

F. Review the Case Outputs and perform the following:

(1) Select the "Select Period" drop down and select "Weekly"

(2) Scroll the side scroll bar downward and view the entire column to see the Weekly negative results in the "OpCap Margin MW" column.

(3) Approve the PO if the Operational Capacity Margin is positive.

(4) **No** further action is needed if there are **no** negative capacity margins in the outage period and the outage can be Approved.

(5) Update the "Operable Capability Review" section within the proposed Resource outage request in the ISO Outage Scheduling software by performing the following:

a. Open the ISO Outage Scheduling software.

b. Open the proposed Resource PO request.

c. Select the "Studies" tab.

(6) Select the "ISO Generation Studies" tab and enter applicable notes and capacity margins as needed.

NOTE

Informational Resource outage requests are a subset of outages that may need to be evaluated. A Lead MP enters an Informational outage request if the Resource does **not** have a CSO for the period of the outage or if the outage is small enough to **not** impact the CSO (e.g., A 100 MW wind farm has a CSO of 20 MW and the outage is only for 6 MW). An outage that is entered as Informational needs to be evaluated if the unit has an obligation under ISO New England Inc. Transmission, Markets and Services Tariff Section II Open Access Transmission Tariff (OATT) Schedule 2 Reactive Supply and Voltage Control Service, and is needed to provide voltage support to an area.

5.1.3 Calculate the LTOCM for Resource PO Evaluations

1. Once the data inputs have been entered, the RA shall calculate the LTOCM using the LTOCM software by performing the following steps:

   A. Open the LTOCM software as a Business User.

   B. Select the "Create New Case" button located at the top of the screen and based on the timeframe that needs to be studied, enter the "start" date and "end" date

   C. For evaluating pending Resource outage requests, select the "50-50 PLE Demand Forecast".

   D. Under "Case Name", name the case , include your initials and the date range used in the study and any other relevant information

   E. Select the "Create Case" button

NOTE

Selecting the "Load Case Inputs" button will load outage data from the ISO Outage Scheduling software and Resource/Asset CSO data from FCTS.

   F. Select the "Load Case Inputs" button and once the case inputs have been loaded, verify the "Case Input" tab is visible.

   G. Run the case by selecting the "Run Case" button at the top of the screen, and when the run is complete, verify the "Case Output" tab is visible and the Case State changes to "Solved".

2. If the proposed Resource outage results in a negative Capacity Margin the RA shall perform the following:

   A. Notify the Lead MP of the issue

B. Negotiate a more favorable timeframe

C. Coordinate with the applicable LCC to ensure new date/time satisfies all reliability requirements

D. Perform the steps in section 5.1.3.1. to evaluate new timeframe:

(1) The RA shall change the status of the proposed Resource outage request to "Negotiate" until a decision is made to either reposition or Deny the outage.

NOTE

Often the status of the PO will change to "Interim Approved" first. POs should **not** be left in the Interim Approved state, but should be moved to "Approved" once the decision is made that the PO can occur.

3. The RA shall Approve the proposed Resource outage request by performing the following:

A. Open the ISO Outage Scheduling software and perform the following:

(1) Open the proposed Resource outage request.

(2) Select the "Studies" tab.

(3) Select the "ISO Generation" tab.

(4) Enter applicable notes in the Reliability Review section.

(5) Select "Approved" and verify the status of the proposed Resource outage request changes from "Study" or "Negotiate" to "Approved".

5.1.4 Requests from Lead MP E-mails

1. The RA shall change outage requests made to previously submitted Resource outages through the "GenerationOutageCoordinator" (generationoutagecoor@iso-ne.com) shared mailbox (formerly OPandA mailbox) by performing the following:

NOTE

The RA is responsible to monitor the Generation Outage Coordinator mailbox for any communication from a Lead MP including changes to outage requests.

The OPandA mailbox has not been formally retired and should be monitored in parallel.

A. From the "GenerationOutageCoordinator" shared mailbox, open each Lead MP email.

B. Review each outage request number, dates and times, Asset Name or ID information that is being changed.

C. Open the ISO Outage Scheduling software and find the impacted outage by Clicking "View", and click "Find Outage Req. By Number".

(1) After verifying the previously submitted Resource outage request is identified, and if a date change to the previously submitted Resource outage request is required, change the Planned start and/or Planned end dates using the following rules:

a. Date changes that shorten the outage duration (either start or end date or both) are made immediately and the Lead MP is notified that the date changes were processed.

b. Date changes that shift the outage time frame or lengthen it, fall into two categories and are to be handled accordingly:

i. If the date changes are being requested in response to an ISO or LCC request to align a Resource outage with a transmission outage, the date changes are made by the RA and the outage retains its priority.

ii. If the date changes are being made solely at the request of the Resource MP, the existing outage is cancelled and the Resource MP submits a new PO request with the new dates. The priority of the original PO is **not** retained in this case.

iii. If the date change consists of an extension of the current outage dates, the Resource MP can chose one of the two following options:

- Cancel the current outage and submit an entirely new request

- Keep the current outage (and its priority date) and submit a new request only for the additional time

(2) In the Lead MP email, select "Reply to All" to notify the Lead MP that the PO has been updated.

NOTE

The RA will be responsible to monitor the GenerationOutageCoordinator mailbox or any email from a Lead MP changing a previously submitted Resource PO request.

2. The RA shall process each cancellation request for an outage received through the GenerationOutageCoordinator mailbox by performing the following:

   A. From the GenerationOutageCoordinator mailbox, open the Lead MP email.

   B. Review the outage request number, dates and times, Asset Name or Asset ID information for the cancelled outage.

   C. Open the ISO Outage Scheduling software and perform the following:

      (1) Select the “Request Summary” tab

      (2) At the bottom right of the screen, select the “Cancel” box and verify a “Cancel Outage” box appears

      (3) In the “User Type” drop down menu, select the “LCC/GO User”

      (4) Select a reason code in the “Reason Code” drop down menu

      (5) Select a reason sub-code in the “Reason Sub-code” drop down menu

      (6) In the Comments section enter the Lead MP name and contact information and the Resource PO cancellation request date

      (7) Select the “Cancel Outage” box

      (8) Select the “Save Changes” box

      (9) Reopen the Resource change request email in the GenerationOutageCoordinator mailbox.

      (10) Select “Reply to All” to notify the Lead MP of the Resource outage request cancellation

5.1.5 Enter Transmission Constrained Down, and Transmission Constrained Up Requests in the ISO Outage Scheduling Software

NOTE

Transmission Constrained Up (TCU)/Transmission Constrained Down (TCD) is a Transmission Constrained outage request resulting from a reliability study that identifies a need to restrict or must run a Resource. The restriction/must run can be due to a thermal or a stability limitation. Once a TCU/TCD is identified, the RA enters an outage request in the ISO Outage Scheduling software and refers to this information in the ISO Transmission Outage.

During the Resource outage coordination process, only TCDs are created to reflect a reduction in available capacity. TCUs will be created as needed in the Transmission Outage Coordination process, however, the RA still makes the relevant notifications.

1. The Resource Analyst shall evaluate the need for a TCD outage request as follows:

   A. Open the relevant transmission outage in the ISO Transmission Outage Scheduling software.

   B. Check the recall time of the outage:

      (1) If the recall time is 4 hours or less, a TCD is **not** entered and the Resource is considered fully available for capacity during the transmission process.

         a. Notify the Lead MP that the affected Resource may be limited.

      (2) If the recall time is greater than 4 hours, enter a TCD for each affected Resource and verify the applicable Resource Lead MP was notified of the restriction.

2. The Resource Analyst shall enter a TCD as follows:

   A. Open the relevant transmission outage in the ISO Outage Scheduling software.

   B. On the "Short Term Study" tab, select the Resource that requires entering a TCD.

   C. Select the "Create TCD" button and a blank Resource outage request window will open for the selected Resource.

   D. Enter the necessary information, including but **not** limited to the following:

(1) Dates and times of the outage. Verify the outage request period(s) address(es) the date(s) and time(s) required.

(2) Resource restriction value

(3) Reliability Area

NOTE

Do **not** submit profiled TCD applications unless the restriction for the Resource is OOS.

NOTE

TCU requirements are **not** entered into the ISO Outage Scheduling software in the transmission process, however, the necessary notifications are still made to the Resource.

NOTE

It may be necessary to enter two TCD applications if the outage spans the winter and summer capability periods since the ISO Outage Scheduling software does **not** allow one request for both periods.

E. Interim Approve the TCD application

F. The RA will Approve the TCD application once sufficient capacity margins are verified

G. Notify the Lead MP per Section 5.1.6 of this procedure.

5.1.6 Communicate with MP's Regarding Transmission Outages.

NOTE

There are three main methods of informing a Market Participant (MP) of transmission outage information:

- Automatic: Daily, each Long-Term Outage (LTO) contact from CAMS receives a comprehensive list of impacted dates and times. These are triggered by an asset being added to the "Gen Limitation" and "Gen Must Run" sections of a transmission outage request. These emails are sent every morning at 0600 and provide an indication of "potentially" restricted or "potentially must-run". Prescriptive limits (e.g. isolations or specific amounts) are required to be communicated excplicitly by one of the other two methods:
    - Semi-Automatic: The application of "Hard Limit Notification" within ISO Outage Scheduling softare.These notification types are also utilized to communicate M/LCC-1 requirements with nuclear facilities. The manual part is entering the limit into the software, the automatic part is writing the emails that then get sent to the required participant.
    - Manual: Either through phone calls or e-mails sent as manually written. All entries for tomorrow's day-ahead should be done via manually via a phone call.

Additionally, there are multiple ways a Resource Analyst could be made aware of a necessary communication:

- A virtual platform chat message, phone call, e-mail, or face-to-face interaction.
- The Outage Coordination Dashboard

In the event of a failure of the automatic or semi-automatic notifications, all notifications will be required to be performed manually (refer to section 5.1.6.1.).

NOTE

It is expected that all communications emanating from the Resource Analyst will CC: resourceanalyst@iso-ne.com for business continuity.

1. To notify a Lead MP *manually*:

    A. Navigate to the NX-12 information in the ISO Web Control Room Page (http://isoweb.iso-ne.com/control_room/)

B. Click “DE Contact Info”.

C. Navigate to the “DLContact Info” tab.

D. Find the desired asset.

E. Perform notifications as follows:

a. For outages with a start date less than 21 days in the future:

i. Use the DE STO EMAIL Contact.

b. For outages with a start date 21 days or greater in the future:

i. Use the DE LTO EMAIL contact.

c. In the event that the notification is for the next operating day:

i. **Notification must be made via phone to the DE STO PHONE contact.**

F. Communicate the planned start, planned end, and the limitation amount to the contact selected above. Any e-mail correspondence shall include a CC to resourceanalyst@iso-ne.com. In the event that the limitation includes a group of assets with different contacts, information will only be shared as it pertains to the specific asset owner.

G. In the ISO Outage Scheduling software, access the “Request Details/Approval” tab in the associated transmission outage.

H. Near the bottom in the “Notifications” section, click “Add”

I. Select “Notified Gen” as notification type.

J. Under the “Notify” column, enter the Asset Short Name “_” Contact name. e.g. GENA_LTO

K. Under the “Contact Information” enter the e-mail address or phone number used for the notification.

L. Under “accepted/result”, choose the applicable category. For e-mails, this is determined to be success.

M. Under “Comments” write a description of what was conveyed to the resource. Dates are implied.

a. For M/LCC-1 notifications, the comments should include the component from M/LCC-1 to be worked on. If the component is at a neighboring facility, the specific component is not to be

mentioned, but instead how it pertains to M/LCC-1, e.g. a remote terminal breaker to the [NPIR component].

N. If there is an entry in the notifications area for "RA Review Required", change the status of that row to "Success".

O. Save the outage request with the updated notification.

2. To notify a Lead MP *semi-automatically:*

A. If this outage is for the next operating day, a manual notification must be performed per 5.1.6.1.

B. Access the transmission outage in the ISO Outage Scheduling software.

C. Access the "Request Details/Approval" tab.

D. Near the bottom in the "Notifications" section, click "Add"

E. Select "Hard Limit Notification" as notification type.

F. Under the "Notify" column, add three periods (…). This prevents a pattern match. If there is a pattern match, a dialog will attempt to auto-fill the rest of the fields. This is not desirable and will not perform notifications as intended.

G. Under the "Contact Information" column, enter the Asset Short Name to be notified. For composite units where a restriction only exists on one machine, this is required to be the parent asset (e.g. if GCT1 and GCST make up parent asset GEN1, enter GEN1).

H. Under comments, enter the desired restriction information.

I. If there is an entry in the notifications area for "RA Review Required", change the status of that row to "Success"

J. An auto-emailer will find the associated contact and send the email to the proper recipient with a CC sent to resourceanalyst@iso-ne.com.

5.1.7 Identify Required Notifications based on Transmission Applications

NOTE

Because of the number of outages and instances where specific notifications are required to MP(s), it is necessary to track:

- When notifications are made
- What notification was made
- Peer reviews

This part of the procedure is in regards to tracking these notifications and prevents necessary notifications from **not** being communicated. As such, Resource Analysts should endeavor to perform all notifications as soon as possible by using either the Outage Coordination Dashboard or the ISO Outage Scheduling software to monitor for the need to perform notifications.

A. To use the Outage Coordination Dashboard to identify notifications requiring action:

1. Navigate to the Outage Coordination dashboard
2. Click the "RA Notification Required" link on the menu.
3. Click the "RA Notifications to be performed" tab.

NOTE

The RA Review Notification having the "Accepted/Result" **not** as "Success" (blank) is the method by which these notifications are brought to the dashboard for Resource Analyst review.

4. For each transmission outage request, verify that the Transmission Operating Guide (if applicable)/or attached Guidance was utilized, and that the appropriate Assets are listed in the "Generation Must Run" and/or "Generation Limitations" field(s). Contact Transmission Outage Coordination if discrepancies exist.
5. For each prescriptive limit (e.g. 50MW or isolated for transmission) perform notifications as listed in 5.1.6 of this procedure. If there are no notifications required, move to the next step.

6. For the RA Review Required line, change the "Accepted/Result" to "Success".

B. To use the ISO Outage Scheduling software to identify notifications requiring action:

1. Click "View", and then click "Transmission Outage Requests"
2. Set the filter to Overall, and filter for Status of outages in Interim Approved or Approved
3. Set the end date 2 years into the future
4. Click View Definition and find the row for "Notification Entries". Click the Visible Checkbox. Make sure "Last Updated When" is also visible.
5. Find the Notification Entries column on the browser, and filter by "RA Review Required"
6. Using the "Last Updated When", check all applications that were updated between the current check and the last time it was done. Perform notifications per the 5.1.6.

5.1.8 Generation Applications Required as Transmission Applications

NOTE

Some generation applications are required to have corresponding transmission applications. Transmission applications are the mechanism to capture changes to TOG limits.

The specific requirements are capture in M/LCC-8. Types of applications requiring this can include:

- Voltage control equipment
  - Automatic Voltage Regulator (AVR)
  - Power System Stabilizer (PSS)
  - Reactive Control System (RCS)
- Specific generation outages as prescribed in Transmission Operating Guides (TOG).

1. Identify the Generation Outage Request for a PSS,AVR, or RCS.

2. Determine if the Generation Outage Request requires a transmission application by looking in ODMS at the full document for the machine name and the asset name.

    a. If the asset or machine is in any TOG, a transmission outage request **is required.**

    b. If the asset or machine is not listed in any TOG, consult with Real-Time Studies and Transmission Outage Coordination to determine if a Transmission Outage Request is required.

    c. Document the results of A and B in the ISO Comments section of the Generation Outage Request.

3. To create the Transmission Outage Request:

    a. Create a new transmission outage request.

    b. For the equipment requested, add the machine name _UCM to the equipment request. The equipment status should be "CLOSED" to prevent isolating the machine from the transmission system.

    c. Make the Transmission Outage Request "Informational"

    d. Ensure the dates of the Transmission Outage Request match the dates of the Generation Outage Request.

    e. Link the Transmission Outage Request to the Generation Outage Request.

    f. In the ISO Comments field of the Transmission Outage Request, write the verbiage of the constraint/outage from the Generation Outage Request. Include the asset or machine and the specific outaged component along with any identified TOGs.

    g. Inform Transmission Outage Coordination of the Transmission Outage Request for further administration.

5.2 Perform System & Market Operations Report (formerly COO Report)

5.2.1 Creating Excel Operable Capacity Margin Table

Through following the below steps the RA will be able to take a previously made LTOCM case and create an Operable Capacity Margin Excel spreadsheet. These OCM Excel spreadsheets are commonly used when drafting the monthly System and Market Operations monthly presentation but can be used for other business functions at the discretion of the RA. :

1. In LTOCM as a "Business User", select a previously made case (or create a new one as required)
2. Once the case has been accessed, in the toolbar click the "Export All" button, which is a picture of a moving arrow and computer.
3. Save the case to \\iso-ne.com\shares\outage_coord\OPCAPReport\LTOCM
4. Open the Beautifier Plus spreadsheet from \\iso-ne.com\shares\outage_coord\OPCAPReport
5. Open the tab named "Main" and click the "Load Data" button.
    a. This button loads data from the most recently saved file in Step 3.
6. The populated tabs can now be used in support of the SMO report.

5.2.2 Create Excel Operable Capacity Margin Table and Graph for the System & Market Operations Report

NOTE

This section assumes the RA has run an LTOCM case, has exported the case and has uploaded the case into the Beautifier Plus Excel spreadsheet. If these steps have not been completed refer to the steps above.

1. The RA should refer to Table 2 (below) to determine which seasons must be including in the draft SMO Report presentation.

   Ex: RA is creating the April SMO presentation on March 23rd. Using Table 2, the RA determines the presentation should cover the upcoming Spring and Preliminary Summer timeframes

2. Refer to \\ISO-NE.COM\shares\ams\[Year] Capacity Analysis to structure presentation based off previous ones. The RA should take the last month's SMO presentation and save it as a new file for the current month.

3. Slide-by-slide breakdown of an Operable Capacity Analysis presentation for one season. Note: most SMO presentations cover multiple seasons so this process should be completed for <u>each</u> season.

   A. Slide 1: Operable Capacity Margin, subtitle is whichever season is being covered. Ex: Winter 2026 Analysis or Preliminary Spring 2026 Analysis

   B. Slide 2: This slide is for the CSO and SCC data for 50/50 assessment and covers the worst week in the season being reported. Update all headers and dates.

   C. Slide 3: This slide is for the CSO and SCC data for the 90/10 assessment and covers the same week that was used in Slide 2 for the 50/50 assessment. Update all headers and dates.

   D. Slide 4: This slide includes a table for the weekly 50/50 CSO data covering the season being reported. This table is constructed using section 5.2.1

   E. Slide 5: This slide includes a table for the weekly 90/10 CSO data covering the season being reported. This table is constructed using process 5.2.4

   F. Repeat Steps B-E for each additional season covered in SMO presentation

G. Last 2 Slides: Possible Relief Under OP4 – These slides typically remain unchanged but the RA shall verify that the steps and assumed relief in each step remains unchanged by referring to the latest published version of OP4 Appendix A.

H. Prior to the due date, e-mail the completed presentation materials to the Administrative Assistant for the VP of System, Market Operations and Capital Projects.

TABLE 2

Report Created	Publish Month	Main Period	Secondary Period	Main Period Month(s)	Secondary Period Month(s)
January	February	Winter	Spring Preliminary	Feb - Mar	Apr - May
February	March	Winter	Spring	Mar	Apr - May
March	April	Spring	Summer Preliminary	Apr - May	June - Sept
April	May	Spring	Summer	May	June - Sept
May	June	Summer		June - Sept	
June	July	Summer		July - Sept	
July	August	Summer	Fall Preliminary	Aug - Sept	Sept - Nov
August	September	Fall	Winter Preliminary	Sept - Nov	Dec - Mar
September	October	Fall	Winter Preliminary	Oct - Nov	Dec - Mar
October	November	Fall	Winter	Nov	Dec - Mar
November	December	Winter		Dec - Mar	
December	January	Winter		Jan - Mar	

5.3 AMS Gantt Preparation

NOTE

The Market Sensitive AMS report includes a Gantt chart of all Resource outages that fall within the reporting period. This chart will **not** be published with the public AMS report.

1. The RA shall create the AMS report Gantt Chart in the ISO New England Outage Scheduling software by performing the following:

   A. Open a "Generation Outage Requests" window

   B. On the "Overall" menu choose the "LT-AMS Gantt Chart Report" in the "View Definition" list

   C. In the "Category" field choose FO, PO, OPO, STO, and TCD

   D. Create the Gantt chart by selecting the "Gantt chart" icon 

   E. Select "Display the data in a weekly format" on the Gantt options pop-up

   F. Once the Gantt chart populates, make adjustments if needed (usually just small formatting changes) and save it in the AMS folder on the server in the following format:

      MMDDYY AMS Month YYYY-YYYY Weekly Gantt chart

6. Performance Measures

This procedure is considered to be properly followed as evidenced by the following:

- Corporate Goal for NERC Reliability Assessment Subcommittee (RAS) to review and report OPCAP assessment results for the winter and summer seasonal assessments.
- Corporate Goal for NPCC CO-12 Operations Planning Working Group to review and report OPCAP assessment results for the winter and summer seasonal assessments

7. References

ISO New England Inc. Transmission, Markets, and Services Tariff Section II Open Access Transmission Tariff (OATT) Schedule 2 Reactive Supply and Voltage Control Service

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

ISO New England Inc. Transmission, Markets, and Services Tariff Attachment D ISO New England Information Policy

ISO New England Manual for the Forward Capacity Market (FCM) Manual M-20 (M-20)

ISO New England Operating Procedure No. 5 - Resource Maintenance and Outage Scheduling (OP-5)

SOP-OUTSCH.0030.0010 - Evaluate Resource Outage Requests

SOP-OUTSCH.0030.0025 - Perform Long Term Outage Coordination Transmission Confidential

SOP-OUTSCH.0030.0070 - Long Term Outage Economic Analysis

SOP-OUTSCH.0050.0020 - Perform Complex Studies

8. Revision History

Rev. No.	Date	Reason	Contact
0	12/09/10	Initial draft procedure	Peter Bernard
1	02/22/2011	Globally made minor editorial changes (i.e., grammar, spelling, punctuation, etc); Deleted all directed action steps, sub-steps and NOTEs in Section 5.5 and replaced with a NOTE containing a table of Monthly Allowances for Unplanned Outages (MS) for all months of the year; Retired Attachment A	Peter Bernard
2	12/06/12	Biennial review by procedure owner; Headers and Footers, updated the required pertinent administrative information; Globally, updated for new Procedure Owner; Based on the biennial review, significant changes to the content of this SOP are required and this effort will require additional time. This new Revision is published with no changes to the content to document completion of the required review and that a new Revision is in progress.	Mike Courchesne
3	06/26/14	Biennial review by procedure owner; Complete re-write to delete all references to AMS spreadsheet and SAM software; Update ISO Generator Outage Scheduling to reflect use of CROW; Update all processes related to LTOCM to reflect the current practices; Update all processes related to the AMS and COO report creation and the analyses required for the reports to reflect current practices; Correct any spelling and grammatical errors found in the procedure	Mike Courchesne
4	06/04/15	Globally made editorial changes consistent with current practices and management expectations to be consistent in using present tense for directed actions and consistent use of grammar; Changes made Sections 3 and 6 to recognize current process of supporting and conducting seasonal assessments already established in the NPCC and NERC processes	Mike Courchesne
4.1	06/15/16	Biennial review completed by procedure owner requiring no changes; Made administrative changes required to publish a Minor Revision;	Mike Courchesne
Rev 5	06/12/18	Biennial review by procedure owner; Globally made editorial changes to be consistent with current conditions, practices and management expectations; Changes include modified language (e.g.,from generator to resource), process improvement updates, reporting changes/improvements, updating web links and general review; Added required corporate document identity to all page footers;	Mike Courchesne

Rev. No.	Date	Reason	Contact
5.1	06/10/20	Biennial review completed requiring no changes. Updated procedure owner in all headers	Andrew Kopacka / Norm Sproehnle
6	May 24, 2022	Updated procedure owner; Incorporated new LT Generation Coordinator role and responsibilities; Procedural updates based on completion of AMS Automation project; Updated AMS publication periodicity from monthly to daily; Removed voice recording Controls; Added Main and Secondary months to Table 2; Updated procedural steps to align with current work practices; Retired Attachments B and C;	Andrew Kopacka
7	May 22, 2024	Biennial review by procedure owner; Made minor administrative changes for document consistency; Globally changed LT Generation Coordinator to Resource Analyst (RA); Globally changed "CAPA" to "AMR"; Changed AMS COO report review period from 5 business days to 3 business days to reflect current business practice;	Andrew Kopacka
8	October 1, 2025	Biennial review completed by procedure owner; globally changed Long Term Outage Coordination to Resource Outage Coordination due to departmental reorganization; deleted Step 5.1.4.1.C. and 5.1.4.2.C. for consistency with current business practices; included 90/10 loads within Step 5.2.2 Note; made minor administrative changes throughout document. Steps 5.2.3.H and 5.2.3.I were broken out into a step with substeps.	Andrew Kopacka
9	June 2, 2026	Removed reliability study wording in 5.1.2 and replaced with effort to coordinate with Transmission Outage Coordination. Added sections 5.1.5, 5.1.6, 5.1.7 to include the notification process for Market Participants for transmission applications. Minor change to 5.1.4 for clarity on software and changing of shared e-mail address. Updated shared e-mail address references in various places. References to DR Activation Limits are deleted. Globally updated the name from "COO Report" to "System & Market Operations Report". The parts of this procedure were condensed to mimic how the report is actually produced. Procedures to execute LTOCM were moved to another procedure. Added section for generation applications needing to be tracked as transmission.	Andrew Kopacka

9. Attachments

Attachment A. Retired

Attachment B. Retired

Attachment C. Retired