

## ISO New England Operating Procedure No. 5 Resource Maintenance and Outage Scheduling

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### References:

North American Electric Reliability Corporation (NERC) Generating Availability Data System (GADS) - Data Reporting Instructions

ISO New England Inc. Transmission, Markets, and Services Tariff, Section II, Open Access Transmission Tariff (OATT)

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

ISO New England 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. 4 - Action During a Capacity Deficiency (OP-4)

ISO New England Operating Procedure No. 7 - Action in an Emergency (OP-7)

ISO New England Operating Procedure No. 8 - Operating Reserve and Regulation (OP-8)

ISO New England Operating Procedure No.14 - Technical Requirements for Generators, Demand Response Resources, Asset Related Demands and Alternative Technology Regulation Resources (OP-14)

ISO New England Operating Procedure No. 23 – Resource Auditing (OP-23)

ISO New England Operating Procedure No. 24 - Protection Outages, Settings and Coordination (OP-24)

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## I. INTRODUCTION

This Operating Procedure (OP) establishes the process for a Market Participant (MP) to request a Planned Outage (PO), Maintenance Outage (MO), or Overrun Planned Outage (OPO) for a generator, Demand Response Resource (DRR), Dispatchable Asset Related Demand (DARD), or Alternative Technology Regulation Resource (ATRR). This OP also establishes the process for ISO New England (ISO) and the relevant Local Control Center (LCC) to evaluate PO and MO requests, and for ISO to approve or deny such requests.

This OP is designed to facilitate the scheduling of POs and MOs/OPOs for an MP's generator, DRR, DARD, or ATRR and to allow:

- (1) each MP to incorporate future maintenance in its budget forecasts;
- (2) sufficient time for an MP to respond to market signals; and
- (3) sufficient time for ISO and the relevant LCC to assess the impact of each generator, DRR, DARD, or ATRR outage request on the reliability of the New England Reliability Coordinator Area/Balancing Authority Area (RCA/BAA)<sup>1</sup> and the New England Transmission System.

Each MP shall, to the fullest extent practicable, maintain and operate all generators, DRRs, DARDs, or ATRRs that it owns or controls in accordance with Good Utility Practice. An MP shall not take a generator, DRR, DARD, ATRR, or Qualified Generator Reactive Resource out-of-service for maintenance without ISO approval, unless there is a danger to personnel or a risk of equipment damage (except for generator, DRR, DARD, or ATRR outages where a Capacity Supply Obligation (CSO) is not impacted or where there is no CSO). If a generator, DRR, DARD or ATRR is forced out-of-service due to personnel or equipment risk, the ISO Control Room Generation Operator and Forecaster shall be notified as soon as possible. ISO shall categorize an outage not approved by ISO as a Forced Outage (FO). An MP shall request a PO, MO, or OPO with as much advance notice as possible in order to prevent an FO.

### A. PO, MO, and OPO Requests

An MP shall submit a request for a PO, MO, or OPO when:

- the PO, MO, or OPO of the Resource impacts the CSO of the associated capacity Resource;
- the request is associated with a Resource without a CSO that is a Qualified Reactive Resource;
- the PO, MO, or OPO of the DRR is for 5 MW or more and results in the associated Active Demand Capacity Resource (ADCR) falling short of its CSO by 5 MW or more (the DRR is the unit that is dispatched in the energy market, but the ADCR has the CSO); or

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<sup>1</sup> Reliability Coordinator Area and Balancing Authority Area are defined in the Glossary of Terms Used in NERC Reliability Standards.

- a PO, MO, or OPO would reduce the ability of a DARD to interrupt without reducing its load by a corresponding amount.

The requirements for PO requests are detailed in Section III.B of this OP. The requirements for MO and OPO requests are detailed in Section III.C of this OP.

## **B. DRR**

An MP shall submit an outage request for a DRR in accordance with this OP if the DRR's offered maximum reduction will be reduced by 5 MW or more, the DRR is associated with an ADCR, and the impact of the DRR's reduced availability will result in the associated ADCR falling short of its CSO by 5 MW or more. When there is more than one DRR associated with an ADCR, the impact from the reduced availability of a DRR on the ADCR's CSO is determined by summing the offered maximum reductions of all of the DRRs that are associated with that ADCR. If the sum of the offered maximum reductions of all the DRRs associated with the ADCR will fall short of the CSO by 5 MW or more, and if a single DRR's maximum reduction will be reduced by 5 MW or more, the MP shall be required to report the outage to ISO. (The maximum reduction to be used shall be for the expected peak hour of the Operating Day.)

## **C. DARD**

An MP shall not reduce the ability for a DARD to interrupt to its Nominated Consumption Limit (NCL) without ISO approval unless there is a danger to personnel or a risk of equipment damage. An MP that reduces the ability for a DARD to interrupt due to danger to personnel or a risk of equipment damage shall notify the ISO Control Room Generation Operator and Forecaster of the reduction as soon as practicable.

## **D. ATRR**

When a PO, MO, or OPO would reduce the ability of an ATRR that is modeled in the ISO topology to provide the registered Regulation capability for more than 24 continuous hours, the MP shall submit a request for the PO, MO, or OPO.

## **E. Intermittent Power Resources**

The process for submitting and evaluating PO, MO, and OPO requests for Intermittent Power Resources shall be the same as for Resources.

## **F. Relay Protection Systems**

An MP shall submit a request for any planned or unplanned testing or maintenance outage of a relay protection system that could reduce or impact the normal operation of the New England RCA/BAA or the New England Transmission System in accordance with ISO New England Operating Procedure No. 24 - Protection Outages, Settings and Coordination (OP-24). The scheduling requirements are designed to allow sufficient time for ISO and each relevant LCC to assess the impact on reliability of each protection outage request.

## **G. Notification of PO or MO When CSO is Not Impacted/There is No CSO**

An MP shall notify ISO of each generator PO or MO that does not impact the CSO of the associated capacity Resource or that is associated with a Resource that does not have a CSO. The notification process shall be conducted per Section IV.2.c. below.

The MP shall categorize and report each Resource outage to ISO in accordance with the NERC Generating Availability Data System (GADS) - Data Reporting Instructions and this OP.

#### **H. ISO Coordination of POs and MOs/OPOs**

Whenever possible, ISO shall coordinate any transmission, generator, DRR and DARD POs, MOs and OPOs to reduce Congestion Costs. For an importing area, ISO shall evaluate requested POs, MOs, and OPOs for any economic generator, DRR or DARD within the area simultaneously with transmission facilities that significantly support area import capability. For an exporting area, ISO shall coordinate any generator, DRR, and DARD outage within the area coincident with outages of transmission facilities that significantly support area export capabilities.

#### **I. Import Capacity Resources**

The MP shall notify the ISO if there is a reduction in capability that impacts the CSO of an Import Capacity Resource backed by one or more Resources.

## II. DEFINITIONS

**Annual Maintenance Schedule (AMS)** is a capacity assessment report provided and updated by the ISO Resource Outage Coordination group on a daily basis. This capacity assessment is intended to convey forecasted capacity margins in order to coordinate Resource and transmission outages in a reliable manner. Providing this report with two years of forecast capacity margins affords sufficient lead-time to schedule POs for the current and future Capacity Commitment Periods (CCPs).

**Locational Operable Capacity Margin (LOCM)** is a measure of the long-term projected weekly operable capacity margin on a New England sub-area basis, as described in OP-5 Appendix A – Operable Capacity Calculations (OP-5A). The sub-area analysis is forecast for up to nineteen (19) months and is performed in addition to the operable capacity margin analysis for the entire New England RCA/BAA.

**Long-Term Operable Capacity Margin (LTOCM)** is a measure of New England RCA/BAA projected weekly operable capacity margin looking ahead up to twenty-four (24) months based on the assumptions in OP-5A. A positive value of LTOCM indicates a potential surplus of operable capacity over and above the estimated load plus Operating Reserve requirement. The LTOCM formula and its components are defined in OP-5A.

**Operable Capacity Margin (OCM)** is, collectively, the LTOCM, the LOCM, the Short Term Operable Capacity Margin (STOCM), and the Short Term Locational Operable Capacity Margin (STLOCM).

### **Outage Types:**

**Forced Outage (FO)** is any outage or inability, in whole or in part, of a Resource to provide its claimed capability or NCL, or any DRR outage as described in Section I.B above, that has not been approved by ISO in the form of a PO or MO. An FO incident preceding a PO or MO shall not eliminate the requirement of the MP to report an FO for the entire actual/estimated period to repair the component(s) associated with the FO. Among other things, an FO may occur by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of Section III of the Tariff and ISO New England Manuals.

**Maintenance Outage (MO) (identified as “Short-Term Outage” in the ISO outage software)** is an outage that can be deferred beyond the end of the weekend, but requires that the generator, DRR, DARD, or ATRR be removed from service within 14 calendar days of the outage start date. During any particular week, if an MP requests an outage that cannot be deferred beyond the weekend, that outage shall be classified as a Forced Outage. ISO shall attempt to, in accordance with the request, accommodate an MO as soon as possible depending on system conditions, significant increases in Locational Marginal Price (LMP), and Congestion Costs. This outage is coordinated in the MO request processes. Characteristically, an MO can occur any time during the year, has a flexible start date, and may or may not have a predetermined duration. Typically, these

Resource outages are less than 14 days in duration.

**Overrun Planned Outage (OPO)** is an overrun of a PO that may be requested up until the Thursday, or the week prior to, the scheduled return of a generator, DRR, or DARD, or ATRR to service. An OPO is considered a type of MO throughout this document. The outage must be limited to the original Planned Outage work scope and must **not** be requested for newly discovered issues (a new request shall be submitted for newly discovered work).

**Planned Outage (PO)** is an outage that must be requested with a minimum of 15 calendar days prior to start date and is typically scheduled for the purpose of performing annual maintenance or more significant work that is planned and coordinated well in advance.

**Owner Test Request** is a request that must be submitted to ISO when the MP has owner testing to perform and wants to ensure their generator, DRR, DARD, or ATRR will be able to operate at a predefined schedule during that testing. If a request for owner testing is not submitted by an MP, transmission outages may be approved that could prevent the desired testing from occurring during the desired period. The MP shall submit and ISO shall evaluate an Owner Test request in the same manner as an MO request.

**Reactive Capability Audit Request (RCAR)** is a request submitted to ISO when an MP has testing that will result in injection or absorption of a specific reactive power value from the Resource. The RCAR shall be submitted to ISO in accordance with ISO New England Operating Procedure No. 23 - Resource Auditing. The MP shall submit the outage as MVar testing and ISO shall evaluate the RCAR in the same manner as an MO request, except that ISO shall respond to the RCAR within the time frame designated in the Response Time Table below.

**Short-Term Locational Operable Capacity Margin (STLOCM)** is a measure of the projected daily operable capacity margin looking ahead 2 weeks or less on a New England sub-area basis, as described in OP-5A.

**Short-Term Operable Capacity Margin (STOCM)** is a measure of New England RCA/BAA projected daily operable capacity margin looking ahead 2 weeks or less based on the assumptions in OP-5A. A positive value of STOCM indicates a potential surplus of operable capacity over and above the estimated load plus Operating Reserve requirement. The STOCM formula and its components are defined in OP-5A.

**Sub-Area** is a local area within the New England RCA/BAA requiring coordination of generator, DRR, DARD, or ATRR and transmission outages.

**NOTE**

Capitalized terms used but not defined in this OP shall have the meanings ascribed to them in the Tariff.

### III. PROCEDURES

#### A. ISO & LCC RESPONSIBILITIES

##### 1. General

###### a. Evaluation Principles

ISO shall assign each outage request an outage tracking number, upon receipt. Each request shall be time- and date-stamped for prioritization purposes.

ISO and the LCC shall evaluate each generator, DRR, or DARD outage request submitted by a Lead MP for the items listed below. Outages of transmission facilities shall be included as a part of this evaluation. Criteria contained in this Section III.A.1 pertain to each generator/DRR/DARD outage that impacts the CSO of the associated capacity Resource. ISO and the LCC shall conduct their evaluation as follows:

- i. Identify if the proposed Resource outage results in an unacceptable OCM.
- ii. Identify if the proposed generator, DRR, or DARD outage results in any negative system or local system reliability impacts.
- iii. Identify opportunities where the proposed generator, DRR, or DARD outage could be adjusted with respect to a pending transmission outage to reduce or eliminate Congestion Costs.

##### 2. PO Review Moratorium

###### a. Annual Forward Capacity Market (FCM) Reliability Review

During the period when ISO is performing reliability reviews of the results of the third annual reconfiguration auction results for the applicable FCM Capacity Commitment Period, ISO shall time-stamp PO requests for outages that fall within June 1 and September 15 of the FCM Capacity Commitment Period to establish review priority and hold until the third annual reconfiguration auction results reliability review is completed.

###### b. Monthly FCM Reliability Review

During the period when ISO is performing reliability reviews of FCM monthly CSO bilateral submissions and monthly reconfiguration auction results for the applicable month, ISO shall time-stamp each PO request for an outage that falls within the applicable month to establish review priority, and hold until the reliability review process is completed.

##### 3. Outage Request Approval Principles

The MP shall request ISO approval to remove a generator, DRR, or DARD from service for a PO or MO in accordance with this OP when that generator, DRR or



DARD outage may impact the CSO of the associated capacity Resource. When the generator, DRR or DARD outage does not impact the CSO of the associated capacity Resource, the MP shall provide notification to ISO in accordance with Section IV.2.c of this OP. The MP shall submit outage requests required to comply with licensing and/or environmental permitting restrictions related to fish passage, rafting condition, or water release as a PO or MO with as much advance notice as possible even during times when unacceptable LTOCM or STOCM are projected. Where the outage request relates to licensing and/or environmental permitting restrictions, the MP shall include in its request detailed information evidencing the restriction in order for ISO to promptly consider any outage prompted by such restrictions.

ISO shall approve any PO or MO request to the extent that it would not, in ISO or LCC judgment, cause an unacceptable OCM or violate any NERC, Northeast Power Coordinating Council Inc. (NPCC), or ISO operating criteria, policy or procedure. Once approved, an MP shall not subsequently be required to alter its PO request if unacceptable OCM conditions arise as a result of another generator/DRR/DARD or transmission outage. However, ISO may delay the start of an outage for reliability reasons.

ISO shall prioritize the outage requests for any given time period on a first-come, first-served basis.

ISO may reject an outage request if, in ISO judgment, the requested outage would cause an unacceptable LTOCM or LOCM (as defined in Section III.B.1.b of this OP) or STOCM or STLOCM (as defined in Section III.C.1.b of this OP).

ISO shall coordinate with the LCCs regarding any outage repositioning. The daily posting of the "Annual Maintenance Schedule" (AMS) shall provide the LCCs with information regarding any repositioned outages occurring later in the year. For an MO request, ISO provides the relevant LCC with the outage information. The LCC shall notify ISO if an outage repositioning poses any local system reliability impact within its local area. Additionally, to reduce or eliminate Congestion Costs, the LCCs and ISO shall promote the continuous flow of information between them and the Transmission Owners (TOs) in an effort to match proposed generator, DRR, or DARD POs or FOs with pending transmission outage work to the extent practicable.

An outage that the ISO has not approved in the form of a PO or MO shall be considered an FO.

## **B. PLANNED OUTAGE REQUEST AND EVALUATION PROCESS**

Where the PO request affects the CSO of associated capacity Resource, or of the associated ADCR as described in Section I.B, or is associated with a generator without a CSO that is a Qualified Reactive Resource, an MP shall request ISO approval to schedule a PO in accordance with this OP. Where the generator PO request does not affect the CSO of the associated capacity Resource or is associated with a generator that does not have a CSO, the MP shall notify ISO of its PO schedule in accordance with this OP.

## 1. PO Request Processing

- a. ISO and the respective LCC shall respond to MP PO requests on a first-come, first-served basis for any defined submittal period. The respective LCC shall review the PO request and continue the requested PO progression for ISO review if the impact on local reliability within its area is acceptable.
- b. ISO shall evaluate the impact of the PO request on the OCM (as defined in OP-5A) and evaluate if approved transmission outages would interfere with the PO request. A PO shall not be approved if the security analysis considering all approved transmission outages identifies a violation(s) of ISO, LCC, NERC or NPCC criteria.
- c. If ISO determines that the requested PO is not acceptable, then ISO shall discuss with the LCC, alternative dates when the system reliability conditions are projected to be more favorable. The LCC shall work with the TO and the generator, DRR, or DARD MP to reposition the PO. If the MP is not willing or not able to move the PO to a period where capacity and security criteria can be met, the PO request shall be denied.
- d. In an effort to reduce Congestion Costs, ISO shall also compare the generator, DRR, or DARD PO request against approved transmission outage schedules to identify cases where the generator, DRR, or DARD PO schedules could be adjusted to meet this objective. If a potential schedule adjustment is identified, ISO shall discuss PO rescheduling with the LCC. The LCC shall coordinate rescheduling with the respective TO and the generator, DRR, or DARD MP. (Throughout this process, ISO shall work with the respective LCC, as needed, to develop alternative PO schedules.)
- e. Upon coordination of generator, DRR, or DARD PO and transmission outage schedules, ISO shall perform its final review to confirm that the New England RCA/BAA and LCC reliability requirements are satisfied, coordination actions are in order, and Congestion Costs have been reduced or eliminated. Following this review, ISO shall notify the MP if its request is approved as submitted, or approved with modifications in accordance with this OP.

## 2. ISO Reporting

ISO shall publish the current AMS, to the ISO external website daily. If the published AMS poses any local system reliability impact within its local area, each LCC shall notify ISO's Resource Outage Coordination staff by electronic media (email) at [opamoreq@iso-ne.com](mailto:opamoreq@iso-ne.com) within five (5) Business Days. [Local system reliability issues identified at this point should be minimal since each generator, DRR, or DARD PO request is forwarded to the respective LCC(s) for review and approval following ISO's initial evaluation.]

ISO shall aggregate approved MP PO requests, and ISO shall provide the

projected weekly LTOCM for the New England RCA/BAA for two (2) consecutive calendar years. This process provides the MPs with a planning tool for reviewing their maintenance requirements and timing of their own operable capacity needs with the market signals of the New England RCA/BAA. This process provides ISO with a method for coordinating generator, DRR, or DARD maintenance requirements to avoid OP-4 or OP-7 actions, and as a result, ISO can identify potential capacity-deficient periods. Additionally, the process provides ISO and the LCCs with the necessary information to identify situations where generator, DRR, or DARD and transmission outages could potentially be coordinated to reduce Congestion Costs.

### 3. Resolution of a Reliability Issue

If ISO determines that a reliability issue exists after it has approved a PO that is reflected in the AMS, ISO shall work with the LCC and the MP to reposition a previously-approved generator, DRR, or DARD PO to avoid or eliminate unacceptable forecasted LTOCM, LOCM, or reliability issues that have arisen since that approval was granted.

Where a reliability issue cannot be eliminated through ISO discussions with the affected MP by seventy-five (75) calendar days prior to the start of the reliability issue, ISO shall perform the following steps in order:

- a. Within seventy-five (75) calendar days of the reliability issue, ISO shall notify, in writing, all MPs that have requested a PO during the period where an unacceptable LTOCM or LOCM is projected and request that all MPs either voluntarily reposition their PO request or provide ISO with alternatives for repositioning their PO request. The MPs shall have fifteen (15) Business Days to respond to the ISO request.
- b. If the problem is not resolved within 30 calendar days of written notification of the reliability issue to the MPs, the ISO may reject one or all of the PO requests as described in this OP. In making its determination, ISO shall group the requests by time-stamp, and then apply an allocation method. The ISO allocation method is used to allocate the capacity available for a PO. ISO shall notify the New England Power Pool (NEPOOL) Markets Committee that the problem exists, that voluntary repositioning has not resolved the problem, and that ISO must implement an allocation process.

The allocation process starts with the most recent group of PO requests. The allocation method is based on the ratio of a requesting MP's total generating CSO and DARD NCL compared to the sum of the requesting group total generating CSO and DARD NCL. This ratio is multiplied by the capacity available for maintenance to determine the MP allocation. Previously approved PO requests shall **not** be subjected to the allocation process. If the MP allocation represents at least ninety percent (90%) of the generating CSO or a DARD NCL to be removed from service, ISO shall approve the PO request. If the MP allocation represents less than ninety percent (90%) of the generator, DRR, or DARD capacity to be removed

from service, the generator, DRR, or DARD outage shall be relocated. ISO shall notify the MPs of the result of the allocation process no later than 55 calendar days prior to the start of any PO.

- c. Following ISO imposition of the allocation method and by forty-five (45) calendar days prior to the commencement of a PO, if any MP refuses to relocate its generator, DRR, or DARD PO for any month included in this allocation process, then the ISO shall classify the outage as an FO.

### **C. MAINTENANCE OUTAGE AND OVERRUN PLANNED OUTAGE REQUEST AND EVALUATION PROCESS**

An MP shall request ISO approval to schedule an MO or OPO if:

- (i) the MO or OPO impacts the CSO of the associated Resource,
- (ii) the MO or OPO of the DRR is for 5 MW or more and results in the associated ADCR falling short of its CSO by 5 MW or more, or
- (iii) the MO or OPO is associated with a Resource without a CSO that is a Qualified Reactive Resource.

If an MO or OPO does not impact the CSO of the associated capacity Resource or if the generator does not have a CSO, the MP shall notify ISO of the MO or OPO.

#### **1. Processing of MO and OPO Requests**

ISO and the respective LCC shall respond to each MO and OPO request as follows:

- a. Response time shall be based on the following table:

<b>Response Time Table</b>	
<b>Submission of MO Request or OPO for an Outage Start of:</b>	<b>Response time by ISO</b>
5 Business Days in the future (RCAR)*	Within 4 Business Days
7 to 14 Calendar Days in the future	Within 3 Business Days
4 to 6 Calendar Days in the future	Within 1 Business Day
2 to 3 Calendar Days in the future**	Within 1 Calendar Day
Overnight or next day, submitted by 0700***	By 0900
Overnight or next day, submitted/requested 0700-2400	Within current day****

\* Has testing that will result in injection or absorption of a specific reactive power value from the Resource per OP-23. 4 Business Days provides the LCC time to assess the outage prior to submitting it to ISO for validation.

\*\* During any particular week, if an MP requests an outage that cannot be deferred beyond the weekend, that outage shall be classified as a Forced Outage

\*\*\* An OPO is not applicable in this timeframe

\*\*\*\* Request shall be evaluated considering Day-Ahead Energy Market and Reserve Adequacy Analysis results

- b. If an MO request results in the forecast of any actions of OP-4 or OP-7, ISO shall attempt to relocate the MO request to an acceptable period in which reliability issues would not be expected to arise. If a request for an OPO results in any actions of OP-4 or OP-7, ISO shall deny the OPO request.
- c. With prospective MO or OPO dates identified (that do not affect system reliability), the ISO shall provide the MO or OPO request information to the respective LCC.
- d. The LCC shall notify ISO if the MO or OPO request poses a local transmission reliability problem. If it does, ISO shall work with the LCC and the MP to resolve the issue.
- e. In an effort to reduce Congestion Costs, ISO shall compare the generator, DRR, or DARD MO or OPO request against approved transmission outage schedules to identify cases where the generator, DRR, or DARD MO or OPO schedules could be adjusted to meet this objective. If a potential schedule adjustment is identified, ISO shall discuss rescheduling with the LCC. The LCC shall coordinate rescheduling with the respective TO and the MP. (Throughout this process, ISO shall work with the respective LCC, as needed, to develop alternative outage schedules.)
- f. ISO, coordinating with the respective LCC, shall proceed as follows depending on whether the case involves:
  - (1) an importing area,
  - (2) Generators, DRRs, or DARDs or an exporting area involving a single MP, or
  - (3) an exporting area involving multiple generators, DRRs, or DARDs involving multiple MPs.
- i. Importing area

For an importing area, the simultaneous outage of transmission supplying the area along with generators, DRRs, or DARDs within the area can increase Congestion Costs and, in severe cases, jeopardize system reliability. To relieve this, the following actions shall be taken to try to position the transmission and generators, DRRs, or DARDs MOs or OPOs so that they occur at different times.

- The LCC shall contact the MP for the generators, DRRs, or DARDs to determine if there is additional flexibility in the MO or OPO position.

- The LCC shall contact the TO for additional flexibility in the TO's schedule. (Generator, DRR, or DARD outage information may be discussed with the TO, as needed.)
- If needed, the LCC shall continue to alternately contact the TO and the MP until a determination is made on whether or not activities can be positioned to reduce/eliminate Congestion Costs. [Note: If the above actions are not sufficient to relieve congestion, then ISO shall dispatch generators/DRRs/DARDs in accordance with the congestion management process or change the timing of the transmission outage.]

ii. Generator, DRR, or DARD or exporting area involving a single MP

This scenario involves a transmission outage that would restrict the commitment or dispatch of a generator, DRR, or DARD involving a single MP (i.e., a line leaving a generator, DRR, or DARD station). The following actions shall be taken as soon as possible to try to change or create outage positions so that generator, DRR, or DARD and transmission outages occur simultaneously, thereby relieving the potential locked-in generator, DRR, or DARD.

- The LCC shall contact the MP for the generator, DRR, or DARD to determine if there is additional flexibility for the timing of the generator, DRR, or DARD MO or OPO.
- The LCC shall contact the TO for additional flexibility in the TO's timing of the outage (generator, DRR, or DARD MO or OPO outage information may be discussed with the TO, as needed).
- If the transmission outage involves a radial circuit to a generator, DRR, or DARD, this information may be shared with the MP. Additionally, non-radial transmission outage information may be shared with the MP if the transmission outage solely affects that MP.
- If needed, the LCC shall continue to alternately contact the TO and the generator, DRR, or DARD MP until a determination is made on whether or not activities can be scheduled to reduce/eliminate Congestion Costs.
- The TO may contact the MP directly to facilitate positioning of MOs or OPOs.

iii. Exporting area involving multiple generators, DRRs, or DARDs and multiple MPs

This case involves a transmission outage that would restrict the commitment or dispatch of generators, DRRs, or DARDs within an

exporting area with several generators, DRRs, or DARDs involving multiple MPs. The following actions shall be taken to try to change or create outage positions so that generators, DRRs, or DARDs and transmission outages occur simultaneously, thereby relieving the potential locked-in generator, DRR, or DARD.

- The LCC shall contact the applicable MPs, in the order in which MO or OPO requests were received to determine if there is additional flexibility in their generators', DRRs', or DARDs' outage position.
  - The LCC shall contact the TO for additional flexibility in its position. (Generator, DRR, or DARD MO or OPO information may be discussed with the TO, as needed.)
  - If needed, the LCC shall continue to alternately contact the TO and MPs until a determination is made on whether or not outages may be positioned to reduce/eliminate Congestion Costs.
  - If generators, DRRs, or DARDs with MO or OPO requests cannot be repositioned or no MO or OPO requests exist, the LCC shall contact affected MPs to inform them that a transmission outage may result in their generator, DRR, or DARD being restricted and to determine if they desire to coordinate an MO or OPO of their generator, DRR or DARD with the transmission outage.
  - If needed, the LCC shall continue to alternately contact the TO and MPs until a determination is made on whether or not outages may be positioned to reduce/eliminate Congestion Costs.
- g. Upon agreement among ISO, the relevant LCC, the TO, and the MPs for the generators, DRRs, or DARDs involved, ISO shall:
- (1) perform a final analysis to confirm that the New England RCA/BAA-wide and LCC reliability requirements are satisfied and that Congestion Costs have been reduced or eliminated;
  - (2) notify the MP for the generators, DRRs, or DARDs that the request is either approved as submitted, or approved with modifications in accordance with this OP; and
  - (3) if applicable, update short-term transmission outage information on the ISO external website.

## **2. MO and OPO Requests ISO Reporting**

ISO shall notify the submitter of the MO or OPO request of the decision made by ISO, but shall not have an obligation to notify any other person or entity with an ownership or contractual interest in the Resource for which the MO or OPO has been submitted.

## **D. OUTAGE REQUEST ON NON-CSO RESOURCE ENROLLED IN SCHEDULE 2 CAPACITY COST COMPENSATION PROGRAM**

An MP for a Qualified Reactive Resource without a CSO shall submit a PO and MO or OPO request. Such requests shall be subject to ISO and LCC review and approval in accordance with this OP with the following exceptions:

1. There shall be no OCM evaluation performed.
2. Security analyses shall be limited to voltage studies.



## IV. MARKET PARTICIPANT RESPONSIBILITIES

### 1. Information Requirements

- a. The changes made during an outage (such as those described in the following list) may require prior approval from ISO (Planning). If required, the approval from ISO Planning must be obtained before the Resource returns to service. An MP must submit an outage request as soon as practical, but no later than the time frames identified in this procedure for any reactive control equipment, including, but not limited to:
  - i. Automatic Voltage Regulators,
  - ii. Synchronous Condensers
  - iii. Flexible AC Transmission Systems [ex. Static Synchronous Compensator (STATCOM) or Dynamic Volt-Amp Reactive (DVAR) or Static VAR Compensator (SVC)],
  - iv. Power Plant Controllers,
  - v. Distributed Control Systems,
  - vi. Reactive Control Systems, and
  - vii. Power System Stabilizers
- b. When submitting a PO, MO or OPO request, an MP shall provide the following information for each request:
  - i. "Capacity Resource ID", only applicable if outage is associated with an Import Capacity Resource.
  - ii. For generator/DARD/ATRR: "Asset ID" and "Asset Name".
  - iii. For DRR: "DRR ID" and "DRR Name".
  - iv. MW amount of the physical reduction.
  - v. Blackstart status during the outage, for blackstart capable Resources only.
  - vi. Preferred outage start date and time.
  - vii. Projected outage end date and time.
  - viii. Outage reason and description of work to be accomplished during the outage.
  - ix. Flexibility of the requested outage schedule dates.
  - x. For an MO, whether the outage can be postponed.
- c. An MP shall submit a generator PO, MO or OPO request that crosses capability period boundaries as two separate outage requests.

- The summer capability period is comprised of the months June through September.
- The winter capability period is comprised of the months of October through May.

## 2. Information Submittal Process

Each MP shall submit the required information as follows:

### a. PO request:

- Submit a PO request for a generator, electronically through the ISO outage application software.
  - The time-stamp for the PO request shall be the time at which the MP last updates the PO request
- Submit a PO request for a generator, DRR, DARD or ATRR when the outage application software is not available by electronic (email) to [generationoutagecoor@iso-ne.com](mailto:generationoutagecoor@iso-ne.com) using the standard form [Appendix B to this OP - Outage Request Form (OP-5B)].
  - The time-stamp for the PO request will be the time at which the email is received

### b. Request for an MO or OPO

- The MP shall submit an MO or OPO request for a Resource, electronically through the ISO outage application software.
  - Except that the MP shall not submit an MO into the ISO outage application software after 0900 hours the day before the start of the outage; a request for an MO made after 0900 hours the day before the start of the MO shall be submitted by contacting the ISO Resource Analyst or ISO Control Room Forecaster.
  - The time-stamp of the MO or OPO request shall be the time at which the MP last updates the MO or OPO request.
- The MP for a DRR, DARD or ATRR shall submit an MO or OPO request to the ISO Resource Analyst by telephone at (413) 535-4378 from 0700 hours to 1530 hours or the ISO Control Room Forecaster by telephone at (413) 535-4340 from 1530 hours to 0700 hours by providing the information required by this OP. A generator may submit an MO or OPO to the ISO in this manner.
  - The time-stamp for the MO or OPO request shall be the time at which the phone call is received

### c. Notification to ISO

- If the MP is required to notify the ISO of a reduction to an Import Resource or generator, as defined in Sections I.G or I.I of this OP, then the MP shall either:
  - Submit the notification via email using OP-5B
  - Call, by telephone, the ISO Resource Analyst at (413) 535-4378 from 0700 hours to 1530 hours or the ISO Control Room Forecaster at (413) 535-4340 from 1530 hours to 0700 hours to provide the information required in OP-5B.

### **3. Changes To Previously Submitted Outage Requests**

An MP request to modify a previously submitted PO, MO, or OPO request shall follow the same process as described in Section III of this OP. ISO shall accept a change request that reduces the scope or duration of the PO, MO, or OPO without impacting the time-stamp of the PO, MO, or OPO request. ISO shall accept a change request that increases the scope or changes the dates of the PO, MO, or OPO such that a new outage evaluation is required as a new PO, MO, or OPO request, which shall be time-stamped accordingly.

### **4. Requesting Implementation Of Outage**

Immediately prior to commencing scheduled work, the MP shall obtain ISO Control Room approval for any generator, DRR, DARD, or ATRR PO and MO request. ISO shall not withhold such approval unless the consequences of granting the approval would result in a risk of the OP-4 action where a Power Watch is declared (Action 4) or higher, or OP-7 actions, or other serious reliability risk. ISO shall inform the respective LCC when the generator, DRR, or DARD is offline and out-of-service. For a DRR, a request for implementation of a PO, MO or OPO shall be entered in eMarket as the DRR's bid parameters reflecting the implemented PO, MO or OPO.

### **5. Notification of an FO**

If an FO is declared, the MP shall notify the ISO Control Room Generation Operator with an appropriate redeclaration for the current Operating Day. The ISO Resource Analyst shall be contacted at (413) 535-4378 from 0700 to 1530, or the ISO Control Room Forecaster by telephone at (413) 535-4340 from 1530 to 0700, for the purpose of providing an expected FO return date, and to provide any necessary redeclaration for any future days for which the bidding deadline has passed. These notifications shall be made as soon as practicable.

### **6. Notifying ISO Of Return-To-Service**

An MP shall notify ISO of the completion of the PO, MO, OPO, or FO by releasing the generator, DRR, DARD, or ATRR to ISO for dispatch. If the MP does not expect to return the generator, DRR, DARD, or ATRR to service on the Planned End Date indicated on the PO, MO, OPO, or FO request, then the MP shall notify

ISO as soon as possible of the new expected return date for the generator, DRR, DARD, or ATRR. This may be captured in a new PO, MO, or OPO request, or require the extension of the current FO request. For a DRR, the notification of return-to-service after the PO, MO, or OPO shall be entered in eMarket as the DRR's bid parameters reflecting the return-to-service after the PO, MO, or OPO.

**ATTACHMENTS:**

OP-5 Appendix A - Operable Capacity Calculations

OP-5 Appendix B - Outage Request Form

OP-5 Appendix C - Retired (09/17/12)

OP-5 Appendix D - Retired (06/01/18)

**OP-5 REVISION HISTORY**

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

Rev. No.	Date	Reason
- -	02/04/21	For previous revision history, refer to Rev 20 available through Ask ISO
Rev 21	02/04/21	Biennial review completed by procedure owner Added reference for OP-23; Included definition of RCAR; Included Response Time for RCAR in Response Time Table; Clarified information requirements for MP in regards to reactive control equipment
Rev 22	05/06/21	Globally changed AMS publication from daily to monthly; Modified language for Resolution of a Reliability Issue to align with daily AMS publication; Removed reference to annual CSO bilaterals;
Rev 23	01/12/23	Biennial review completed by procedure owner; Updated Maintenance Outage and Overrun Planned Outage definitions; Removed transmission outage information revision applicability; Updated Response Time Table, clarified responsibilities for response time when start date of application is less than 6 days, and added clarifying information of RCAR and Force outage; Updated Market Participant Responsibilities Information Requirements; Made minor grammatical edits; Updated Generator to Resource when term is utilized as a general identification; Removed Generator from Qualified Generator Reactive Resource to align with OP-23.
Rev 24	01/09/25	Biennial review completed by Procedure Owner; Made minor grammatical edits; Included language for outage requests relating to fish passage, rafting conditions, and water release to Section III.A.3.; Removed "Publish the PO in the next update of the AMS" from Section III.B.1.e. as this is accomplished upon outage request submittal; Globally changed "Generation Coordinator" to "Resource Analyst"; Renamed Section IV.5. from "Notifying FO" to "Notification of an FO" for clarity; Added clarification to Section IV.6. to include FOs and outages that will not end on their original Planned End date; Added clarification to the first * in the Response Time Table.
Rev 24.1	07/10/25	Periodic review completed by the procedure owner; Updated the email link for OP-5 Appendix B submittals in Section IV.2; Changed Long-Term to Resource under Annual Maintenance Schedule and ISO Reporting in order to reflect change in Outage Coordination organizational structure.