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

Effective Date: June 17, 2026

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References:

1. NERC Reliability Standard EOP-011 - Emergency Operations
2. NERC Reliability Standard PRC-006-NPCC - Automatic Underfrequency Load Shedding
3. NPCC Directory #2 Emergency Operations
4. NPCC Directory #4 Bulk Power System Protection Criteria
5. ISO New England Inc. Transmission, Markets, and Services Tariff, Section I.2.2 General Terms and Conditions; Definitions
6. Transmission Operating Agreements
7. ISO New England Operating Procedure No. 1 - Central Dispatch Operating Responsibilities and Authority (OP-1)
8. ISO New England Operating Procedure No. 4 - Action During a Capacity Deficiency (OP-4)
9. ISO New England Operating Procedure No. 12 - Voltage and Reactive Control (OP-12)
10. ISO New England Operating Procedure No. 13 - Standards for Voltage Reduction and Load Shedding Capability (OP-13)
11. ISO New England Operating Procedure No.19 - Transmission Operations (OP-19)
12. ISO New England Operating Procedure No. 21 – Operational Surveys, Energy Forecasting & Reporting and Actions During An Energy Emergency (OP-21)
13. ISO Master/Local Control Center Procedure No. 4 (M/LCC 4) - Emergency Load Reduction Plans for Mitigating IROL Violations

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PART I - INTRODUCTION

This Operating Procedure (OP) establishes criteria to be followed in the event of an operating Emergency involving unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or any other Emergency that ISO New England (ISO) deems appropriate in either an isolated, or widespread, area of New England. The objectives in establishing these Emergency actions are:

1. To protect reliable operation of the Eastern Interconnection.
2. To restore balance between customers' load and available generation in the shortest practicable time.
3. To minimize risk of damage to equipment.
4. To minimize interruption of customer service.

PART II - RESPONSIBILITY

I. ISO New England Responsibility

ISO has the responsibility and authority, in accordance with North American Electric Reliability Corporation (NERC) Reliability Standards, Northeast Power Coordinating Council, Inc. (NPCC) Directories, the ISO New England Inc. Transmission, Markets, and Service Tariff, applicable Transmission Operating Agreements and ISO OPs, including but **not** limited to ISO New England Operating Procedure No.1 - Central Dispatch Operating Responsibilities and Authority (OP-1), to issue Operating Instructions that may be required for the implementation of this OP, such as load shedding or opening of circuits, when the Emergency situation involves:

A. An overall capacity or energy deficiency in the New England Reliability Coordinator Area/Balancing Authority Area[1] (RCA/BAA) or in any area within the New England RCA/BAA.

B. The New England RCA/BAA interconnections with adjacent RCA/BAA systems.

C. Conditions on facilities external to New England caused by operations or conditions within the New England RCA/BAA.

D. Transmission and/or generating facilities within the New England RCA/BAA.

E. Any other Emergency conditions where ISO determines it appropriate.

[1] Reliability Coordinator Area, Balancing Authority Area and Operating Instruction are defined in the NERC *Glossary of Terms Used in NERC Reliability Standards*.

II. Local Control Center Responsibility

Each Local Control Center (LCC) has the responsibility and authority, in accordance with NERC Reliability Standards, NPCC Directories, applicable Transmission Operating Agreements and ISO OPs, including but **not** limited to OP-1, to issue Operating Instructions that may be required for the implementation of this OP when the Emergency condition involves:

A. A capacity or energy deficiency in an area wholly within the operating jurisdiction of that LCC.

B. The transmission and/or generating facilities under the operating jurisdiction of that LCC.

C. The risk of damage to equipment under the operating jurisdiction of that LCC when accompanied by a loss of communications with ISO.

PART III - PROCEDURE

I. Preparation For Implementation

This OP may be implemented before, during or after action taken under ISO New England Operating Procedure No. 4 - Action During A Capacity Deficiency (OP-4) or ISO New England Operating Procedure No. 21 – Operational Surveys, Energy Forecasting & Reporting and Actions During An Energy Emergency (OP-21), depending on the circumstances of the Emergency. Normally, the potential need for Emergency actions prescribed by this OP should be determined well in advance of the time the actions must be implemented. However, implementation of OP-4 will typically precede implementation of this OP.

When system conditions indicate that implementation of this OP may be necessary, ISO and the LCCs shall establish and, if appropriate, maintain continuous communication in preparation for ISO to implement this OP. Prompt action may provide time to be more selective in the implementation of this OP.

If any LCC and ISO are unable to establish prompt communication, the LCC shall proceed to implement this OP independently.

When time and circumstances allow, ISO and the LCCs shall discuss the Emergency conditions and reach consensus on the actions to be taken and the timing of those actions.

When operating circumstances do **not** allow time for consensus decisions, ISO and/or the LCC shall initiate the necessary actions prescribed by this OP with the understanding that actions resulting in the highest possible level of reliability shall be taken.

II. Procedures for Low Frequency Conditions

In an Emergency characterized by a frequency drop, identification of the deficient RCA/BAA or RCAs/BAAs is vital to expedite corrective action. ISO System Operators[2] shall establish communications with other interconnected RCAs/BAAs as follows, to determine if possible, the cause of the frequency decline and the action required to restore frequency to 60.00 Hz.

NOTE

Some of the actions will occur automatically regardless of the RCA/BAA causing the frequency decline.

A. Confirm existing interchange schedules with adjacent NPCC BAAs.

B. When the cause of the declining frequency is outside of the New England RCA/BAA, ISO shall:

- Regulate the New England RCA/BAA ties to maintain the Frequency-Biased Interchange Schedules.
- Increase the amount of Synchronized Reserve to be able to adjust the Interchange Schedule further, if needed.
- Make known to external RCAs/BAAs the amount of emergency capacity ISO can make available.
- Actions described in Sections II.D through II.J below may be implemented when external RCAs/BAAs request assistance from ISO.

C. When the cause of the declining frequency is due to a deficiency in the New England RCA/BAA:

- Request assistance from external RCAs/BAAs up to the emergency transfer limit of the interconnection Tie Lines.

D. When the frequency declines to 59.90 Hz, ISO shall:

- Disconnect any pumped storage Dispatchable Asset Related Demand(s) (DARDs) operating in the pumping mode. They will be automatically disconnected at 59.65 Hz.
- Dispatch non-synchronized Fast Start Generators and Fast Start Demand Response Resources (DRRs) as required.

E. When the frequency declines to 59.80 Hz ISO shall:

- Suspend Automatic Generation Control (AGC).

[2] System Operator is defined in the NERC *Glossary of Terms Used in NERC Reliability Standards*.

NOTE

Transmission limitations or other reliability criteria may **not** allow the dispatch of all generators to Economic Maximum Limit (Economic Max).

- Issue an Operating Instruction to all generators to go to Economic Max at maximum response rates, as appropriate.
- Issue an Operating Instruction to all Storage As Transmission-Only Assets (SATOAs) to go to full discharge capability at maximum response rate, as appropriate.

F. When the frequency declines to 59.50 Hz:

- Underfrequency relays (fast) shall provide 7% load relief.
- Underfrequency relays (10 second anti-stall) shall provide an additional 2% load relief

G. When the frequency declines to 59.30 Hz:

- Underfrequency relays (fast) shall provide an additional 7% load relief.

H. When the frequency declines to 59.10 Hz:

- Underfrequency relays (fast) shall provide an additional 7% load relief.

I. When the frequency declines to 58.90 Hz:

- Underfrequency relays (fast) shall provide an additional 7% load relief.

NOTE

Up to 50% of the New England RCA/BAA load, including the 30% that is shed automatically, can be shed manually. Details of the manual load shedding procedure and statements to be used by System Operators are included in Appendix A to this OP.

J. If the load shedding by automatic underfrequency relays does **not** stabilize the frequency and it continues to decline below 58.50 Hz:

- If currently synchronized to the Eastern Interconnection, ISO shall issue an Operating Instruction for manual load shedding in accordance with Appendix A to this OP to the extent necessary to restore Area Control Error (ACE) to zero.
- If **not** currently synchronized to the Eastern Interconnection, ISO shall issue an Operating Instruction for manual load shedding in accordance with Appendix A to this OP to the extent necessary to restore frequency to 60.00 Hz.
- All generators shall take necessary action per NPCC Directory # 2 Emergency Operations, including separating generators from the system, to preserve generation and minimize damage and service interruptions.

III. Procedures for a Transmission Emergency

Operation of the transmission system under Emergency Conditions shall be governed by ISO New England Operating Procedure No. 19 - Transmission Operations (OP-19). To maintain system reliability, ISO and the LCCs may take Emergency actions, including:

A. Switching transmission elements,

B. Implement voltage reductions using ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency (OP-4),

C. Utilizing the real power capability of any available SATOA that may mitigate the Emergency, immediately prior to, or concurrent with, the shedding of firm load, and

D. Shedding firm load using Appendix A to this OP.

ISO and the LCC System Operators shall keep operations management at ISO and the LCCs advised as to conditions that might necessitate review of the need to implement Emergency actions on a pre-contingency basis.

IV. Procedures for Unacceptable Voltage Conditions

ISO New England Operating Procedure No. 12 - Voltage and Reactive Control (OP-12) and various voltage guides define criteria and establish guides for actions to be taken so that desirable levels of voltage are maintained on the transmission system. The LCCs shall make every effort to correct unacceptable voltage conditions and shall coordinate actions with ISO.

When unacceptable voltage conditions occur and corrective actions described in OP-12 and/or the voltage guides are **not** effective, the ISO System Operators and/or LCC System Operators shall take Emergency actions, as defined in OP-19, to correct the situation.

ISO System Operators and LCC System Operators shall keep operations management at ISO and the LCCs advised as to conditions that might necessitate review of the need to implement Emergency actions on a pre-contingency basis.

V. Procedures for a Capacity Deficiency

OP-4 provides the criteria and guidelines for actions during a capacity deficiency. In the event that actions of OP-4 are insufficient to alleviate the capacity deficiency or there is not sufficient time to implement these actions of OP-4 prior to implementing this Procedure, the following steps may be taken prior to or simultaneously with the actions of OP-4 in order to alleviate the capacity deficiency.

A. Use of SATOA real power capability, immediately prior to, or concurrent with, shedding of firm load, and

B. Shedding of firm load using Appendix A to this OP.

VI. Restoration of Load

ISO shall issue an Operating Instruction for the restoration of any load shed pursuant to this OP when system conditions permit. If the real power capability of any SATOA was utilized, all SATOA discharge output shall be reduced to zero prior to exiting Emergency Conditions.

OP-7 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
- -	01/17/17	For previous revision history, refer to Rev 10 available through Ask ISO;
Rev 11	06/26/14	Annual review by procedure owner; Modified Effective Date range explanation on Title page; Updated Reference document titles; Modified Part II Step F 59.3 7% load changed to (fast); Modified Part II Step D;
Rev 12	06/26/15	Annual review by procedure owner; Deleted NOTE text after Effective Date on Title page; Updated Reference document titles and deleted non-applicable references; Modified steps II.G and II.H
Rev 12.1	03/14/16	Annual review completed by procedure owner requiring no changes; Made administrative changes required to publish a Minor Revision;
Rev 12.2	01/17/17	Annual review completed by procedure owner requiring no changes; Made administrative changes (added required corporate document identity to all page footers, and truncated the Revision History per SOP-RTMKTS.0210.0010 Section 5.6) required to publish a Minor Revision;
Rev 13	01/08/18	Annual review by procedure owner; Re-ordered Reference documents list to be consistent with current practices; Replaced NERC EOP-003 reference with EOP-011; Globally included a footnote for the appropriate attribution for the first use of each uppercase first letter spelling of terms that are not defined in Section I.2.2 of the Tariff ; Globally, replaced Control Room Staff with System Operators; Globally, capitalized Emergency and Emergency Action (defined terms); Globally made minor editorial and grammar changes consistent with current practices and management expectations;
Rev 14	01/04/19	Annual review by procedure owner; References Section, added Transmission Operating Agreements; Deleted LCC Instructions Section and made minor editorial/grammar changes and clarifications, (consistent with current practices and management expectations); Section II.C 2nd bullet, modified and added Fast Start Demand Response Resources;
Rev 14.1	12/11/19	Annual review completed by procedure owner requiring no changes; Made administrative changes required to publish a Minor Revision;
Rev 14.2	11/05/20	Annual review completed by procedure owner requiring no intent changes; Made administrative changes required to publish a Minor Revision; Corrected Title of OP-21 globally.
Rev 15	10/13/21	Annual review by procedure owner; Removed unnecessary wording and ACE footnote; Sections III and IV, clarified operator communication expectations.
Rev 15.1	10/11/22	Annual review completed by procedure owner requiring no intent changes; Made administrative changes required to publish a Minor Revision.
Rev 15.2	10/04/23	Annual review completed by procedure owner requiring no intent changes; Minor grammar edit in step II.C; Made administrative changes required to publish a Minor Revision.
Rev 15.3	10/03/24	Annual review completed by procedure owner requiring no changes; Made administrative changes required to publish a Minor Revision.
Rev 15.4	10/01/25	Annual review completed by procedure owner requiring no changes; Made administrative changes required to publish a Minor Revision.

Rev. No.	Date	Reason
Rev 16	06/17/26	Section II: Moved confirm interchange schedules to separate bullet, added use of SATOA step; Section III: Added reference to OP-19 and OP-4, added SATOA use step; Section V: New section for capacity deficiency referencing OP-4 and use of SATOA and load shed; Section VI: Added reduction of SATOA real power output prior to exiting Emergency Conditions.