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|  | © ISO New England Inc. 2024 | Procedure: Implement Energy Emergency Actions |
| | Process Name: Implement Emergency Operations | |
| | Procedure Number: RTMKTS.0120.0025 | Revision Number: 14 |
| | Procedure Owner: Thomas Knowland | Effective Date: May 15, 2024 |
| | Approved By: Director, Operations | Valid Through: May 15, 2026 |


SOP-RTMKTS.0120.0025

Implement Energy Emergency Actions

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1. Objective

The intent of this System Operating Procedure (SOP) is to carry out the actions required by ISO New England Operating Procedure No. 21 – Operational Surveys, Energy Forecasting & Reporting and Actions During an Energy Emergency (OP-21).

2. Background


Energy Emergencies may occur at any time as a result of sustained national or regional shortages in fuel availability or deliverability to New England’s Resources. Such shortages of fuel may come in many forms, including, but **not** limited to: severe drought, interruption to availability or transportation of natural gas, oil, or coal. Additionally, a sustained environmental limitation on some, or several, of New England’s Resources may also contribute to an Energy Emergency.

ISO New England (ISO) distributes Generator Fuel and Emissions Surveys to Lead Market Participants (Lead MPs) of applicable Resources at the periodicities defined in OP-21. The purpose of the Generator Fuel and Emissions Survey is to collect data that allows ISO to monitor fuel inventory levels, fuel replenishment plans, and actual or anticipated environmental limitations on Resources within New England. Additionally, ISO uses data submitted on Generator Fuel and Emissions Survey to perform periodic Energy Emergency forecasting and reporting.

ISO performs Energy Emergency forecasting and reporting at the periodicity specified in OP-21, based on available data that includes the information received from Lead MPs through Generator Fuel and Emissions Survey submittals. ISO performs Energy Emergency forecasting and reporting by using an hourly 21-day energy assessment, and comparing the results of that assessment with Energy Emergency forecast alert thresholds in order to identify and communicate potential reliability issues to regional stakeholders.

The Energy Emergency forecast alert thresholds are as follows:

- Forecast MLCC-2 (FMLCC2) – indicates that available Resources during any hour of the Operating Day are forecasted to be less than 200 MW above those required to meet Operating Reserve requirements.
- Forecast Energy Emergency Alert Level 1 (FEEA1) – indicates that available Resources during any hour of the Operating Day are forecasted to be less than those required to meet Operating Reserve requirements, and that implementation of OP-4 Actions 1 through 5 is being forecasted.
- Forecast Energy Emergency Alert Level 2 (FEEA2) – indicates that available Resources during any hour of the Operating Day are forecasted to be less than those required to meet Operating Reserve requirements, and that implementation of OP-4 Actions 6 through 11 is being forecasted.

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- Forecast Energy Emergency Alert Level 3 (FEEA3) – indicates that available Resources during any hour of the Operating Day are forecasted to be insufficient to serve firm load requirements, and implementation of firm load shedding under OP-7 is being forecasted.

ISO declares an Energy Alert, and takes actions as described in OP-21, when either of the following conditions exist:

- FEEA2 or FEEA3 is forecasted to occur in at least 1 hour on 1 or more consecutive days in days 6 through 21 of the 21-day energy assessment, or
- Any other reason(s) that the ISO Chief Operating Officer (COO), or designee, determines that the actions described in Section III.B of OP-21 may mitigate the impact of an actual or forecasted energy deficiency.

ISO declares an Energy Emergency, and takes actions as described in OP-21, when either of the following conditions exist:


- FEEA2 or FEEA3 is forecasted to occur in at least 1 hour on 1 or more consecutive days in days 1 through 5 of the 21-day energy assessment, or
- Shedding of firm load under OP-7 is occurring or is anticipated to occur due to an actual energy deficiency resulting from a sustained shortage of fuel availability or deliverability to, or sustained environmental limitations on, some or several of New England’s Resources, or
- Any other reason(s) that the ISO COO, or designee, determines that the actions described in Section III.C of OP-21 may mitigate the impact of an actual or forecasted energy deficiency.

For the purposes of OP-21, ISO declares Normal Conditions any time when **neither** an Energy Alert **nor** an Energy Emergency has been declared.

To the extent possible, ISO shall declare Energy Alerts and Energy Emergencies on a daily boundary.

This SOP is performed in conjunction with OP-21. Actions in this procedure along with OP-21 are taken in advance of real-time actions in order to mitigate the possibility of extreme OP-4 and OP-7 actions taken by the Control Room System Operators.

Prior to or during implementation of OP-21, the Manager, Forecast & Scheduling, (or designee), in accordance with the OP-21 Appendix B - Electric/Gas Operations Committee’s (EGOC) Operations Communications Protocol (OP-21B), communicates with the regional natural gas pipeline/Local Distribution Companies (LDCs) to discuss/determine pertinent gas sector information such as gas-supply and transportation availability and/or posted Critical or Non-Critical Notices, especially those concerning pipeline capacity constraints or Operational Flow Orders (OFOs).


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3. Responsibilities

1. The Energy Security Analyst is responsible for performing the periodic Generator Fuel and Emissions Surveys using OP-21.
2. The Lead Energy Security Analyst is responsible for performance of Energy Emergency forecasting and reporting.
3. The TSO Administrator is responsible for communicating with dual fuel generators to determine expected operating fuels.
4. The Forecaster is responsible for performing the 21-day load forecast.
5. The Operations Shift Supervisor is responsible for actions described in CROP.10005 Implement Energy Emergency Remedial Actions
6. The Director, Operations (or designee) is responsible for communicating Energy Alert and Energy Emergency declarations and cancellations to the ISO External Affairs department.
7. The Director, Operations (or designee) is responsible for communicating the need for emergency relief under Section 202(c) of the Federal Power Act (FPA) to the ISO Legal Department.
8. The Manager, Control Room Operations (or designee) is responsible for conducting M/LCC Heads and CO-8 NPCC conference calls.
9. The Manager, Forecast and Scheduling is responsible for verifying that:
 - A. Data collection is performed at the periodicity described in OP-21
 - B. All Generator Fuel and Emissions Survey data is treated as described in OP-21.

4. Controls

None

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5. Instructions

5.1 Data Collection Process during Normal Conditions

NOTE

For the purposes of OP-21, Normal Conditions are conditions that exist any time that **neither** an Energy Alert **nor** an Energy Emergency has been declared.

- 5.1.1 Collect Data**
1. The Energy Security Analyst shall initiate the Generator Fuel and Emissions Survey request for Lead MPs of applicable Resources at the frequency described in OP-21.
 2. The Energy Security Analyst shall review data and information submitted on each Generator Fuel and Emissions Survey and contact Lead MPs as necessary to clarify any submitted information.
 3. The Director, Operations may modify data collection requirements and/or the data collection frequency due to emergent indications of potential energy deficiencies.
 4. The Forecaster shall perform the 21-day load forecast daily and provide the completed forecast results to the Lead Energy Security Analyst for use in the Energy Emergency forecasting and reporting process described in OP-21.

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5.2 Actions for an Energy Alert

NOTE


An Energy Alert will normally be declared or cancelled by ISO based on the results of the Energy Emergency forecasting and reporting process.

The decision to declare an Energy Alert will be made by the ISO Vice President, System Operations & Market Administration or their designee.

To the extent possible, Energy Alerts will be declared on a daily boundary.

The following actions in this procedure are intended to support actions of OP-21 which are taken to mitigate the severity of future actions of OP-4 and OP-7. Management concurrence to initiate OP-21 instructed actions is required.

- 1 When an Energy Alert declaration is necessary based on the results of the Energy Emergency forecast, or as directed by the Director, Operations:
 - A. The Operations Shift Supervisor shall perform the applicable steps of CROP.10005 Implement Energy Emergency Remedial Actions
 - B. The Director, Operations shall communicate the Energy Alert declaration to the ISO External Affairs Department in order to facilitate informing the applicable state regulators and officials
 - C. The Energy Security Analyst shall initiate daily data collection
 - D. The Lead Energy Security Analyst shall initiate daily Energy Emergency forecasting and reporting.
 - E. The Forecaster shall perform the 21-day load forecast daily and provide the completed forecast results to the Lead Energy Security Analyst for use in the Energy Emergency forecasting and reporting process described in OP-21
 - F. In the event that emissions or other permit limitations cause or worsen conditions resulting in an Energy Alert, the Director, Operations shall communicate the need for orders under Section 202(c) of the FPA to operate up to their maximum generation output levels

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5.3 Actions for an Energy Emergency

NOTE


An Energy Emergency will normally be declared or cancelled by ISO based on the results of the Energy Emergency forecasting and reporting process.

The decision to declare an Energy Emergency will be made by the ISO COO, or designee.

To the extent possible, Energy Emergencies will be declared on a daily boundary.


The following actions in this procedure are intended to support actions of OP-21 which are taken to mitigate the severity of future actions of OP-4 and OP-7. Management concurrence to initiate OP-21 instructed actions is required.

1. When an Energy Emergency declaration is necessary based on the results of the Energy Emergency forecast, or as directed by the Director, Operations:
 - A. The Operations Shift Supervisor shall perform the applicable steps of CROP.10005 Implement Energy Emergency Remedial Actions.
 - B. The Director, Operations shall communicate the Energy Emergency declaration to the ISO External Affairs Department in order to facilitate informing the applicable state regulators and officials.
 - C. The Manager, Control Room Operations (or designee) shall conduct daily conference calls with the M/LCC Heads and CO-8.
 - D. The Energy Security Analyst shall initiate daily data collection.
 - E. The Lead Energy Security Analyst shall initiate daily Energy Emergency forecasting and reporting.
 - F. The TSO Administrator shall perform the following:
 - (1) Contact each dual-fuel generator that is scheduled to operate and determine if the generator will voluntarily switch to operation on the fuel source that is **not** in short supply.
 - (2) Inform the Operations Shift Supervisor of each generator that has volunteered to switch its fuel source.
 - G. The Forecaster shall perform the following:
 1. Perform the 21-day load forecast daily and provide the completed forecast results to the Lead Energy Security Analyst for use in the

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Energy Emergency forecasting and reporting process described in OP-21.

- H. In the event that emissions or other permit limitations cause or worsen condition resulting in an Energy Emergency, the Director, Operations shall communicate the need for orders under Section 202(c) of the FPA to operate up to their maximum generation output levels.


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5.4 Cancellation of an Energy Alert or Energy Emergency

NOTE

An Energy Alert or Energy Emergency will normally be cancelled based on the results of the Energy Emergency forecasting and reporting process. To the extent possible, Energy Alerts and Energy Emergencies will be cancelled on a daily boundary.

1. When an Energy Alert or Energy Emergency has been cancelled:
 - A. The Operations Shift Supervisor shall perform the applicable steps of CROP.10005 Implement Energy Emergency Remedial Actions.
 - B. The Director, Operations shall communicate the cancellation to the ISO External Affairs Department in order to facilitate informing the applicable state regulators and officials.
 - C. The Energy Security Analyst shall initiate data collection at the periodicity described in OP-21.
 - D. The Lead Energy Security Analyst shall initiate Energy Emergency forecasting and reporting at the periodicity described in OP-21.

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6. Performance Measures

None.

7. References

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

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. 21 - Operational Surveys, Energy Forecasting & Reporting and Action During an Energy Emergency (OP-21)

ISO New England Operating Procedure No. 21 - Appendix B - Electric/Gas Operations Committee's (EGOC) Operations Communications Protocol (OP-21B)

CROP.10005 Implement Energy Emergency Remedial Actions

8. Revision History

| Rev. No. | Date | Reason | Contact |
|----------|----------|---|-----------------|
| -- | 10/24/18 | For previous revision history, refer to Rev 10 available through Ask ISO; | Steven Gould |
| 11 | 10/24/18 | Biennial review completed by procedure owner; Major rewrite to align with significant OP-21 revision. Control Room Operator actions will be documented in new CROP.10005 Implement Energy Emergency Remedial Actions; Truncated the Revision History per SOP-RTMKTS.0210.0010 Section 5.6; | Steven Gould |
| 11.1 | 09/14/20 | Periodic Review completed by procedure owner. Administrative changes performed to publish Minor Revision. | Steven Gould |
| 12 | 06/17/21 | Change based on revision to OP-21 Operational Surveys, Energy Forecasting & Reporting and Actions During An Energy Emergency and retirement of OP-21A | Steven Gould |
| 13 | 06/14/23 | Biennial review completed by procedure owner; Changed procedure owner and contact; Globally changed "Operations Support Services Energy Analyst" to "Lead Energy Security Analyst"; Globally changed "OPTI Business Analyst" to "Energy Security Analyst"; Added responsibility and actions for TSO Administrators to contact dual fuel generators when required; Removed unnecessary redundant steps due to consolidation of the process into one group. | Thomas Knowland |


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| 14 | 05/15/24 | Periodic review completed by procedure owner; Added responsibility to communicate with Legal for emergency orders for emissions limitations. | Thomas Knowland |
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9. Attachments

Attachment A - Retired (08/28/14)

Attachment B – Retired (05/19/21)

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