




System Operating Procedures

SOP-RTMKTS.0120.0025

Implement Energy Emergency Actions

Effective Date: June 1, 2010
Revision No. 5

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|  | © ISO New England Inc. 2010 | Procedure: Implement Energy Emergency Actions |
| | Process Name: <i>Implement Emergency Actions</i> | |
| | Procedure Number: <i>RTMKTS.0120.0025</i> | Revision Number: <i>5</i> |
| | Procedure Owner: <i>Steve Weaver</i> | Effective Date: <i>June 1, 2010</i> |
| | Approved By: <i>Director, Operations</i> | Valid Through: <i>June 1, 2012</i> |

SOP-RTMKTS.0120.0025 Implement Energy Emergency Actions


Contents

| | | |
|-----------|---|-----------|
| 1. | Objective | 2 |
| 2. | Background | 2 |
| 3. | Responsibilities..... | 3 |
| 4. | Controls | 3 |
| 5. | Instructions..... | 4 |
| 5.1 | Collect and Evaluate Data | 4 |
| 5.1.1 | Collect Survey Data | 4 |
| 5.1.2 | Evaluate for Energy Shortage Conditions | 4 |
| 5.2 | Perform Actions for an Energy Emergency | 5 |
| 6. | Performance Measures..... | 10 |
| 7. | References..... | 10 |
| 8. | Revision History | 10 |
| 9. | Attachments | 11 |
| | Attachment A - Fuel Survey Form – Weekly/Daily Update | 12 |

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1. Objective

The intent of this procedure is to ensure sufficient resources are available during energy emergencies to meet forecasted capacity and reserve requirements and to allow for timely implementation of relief actions using ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency (OP-4) and / or ISO New England Operating Procedure No. 7 – Action in an Emergency (OP-7).


2. Background

Energy Emergencies may occur as a result of sustained fuel shortages to the region Generators. Severe drought, interruption of natural gas supplies or coal and oil shortages may be triggers to initiate an Energy Emergency. If the impact of the fuel shortage is projected to result in the loss of operable generating capability that would prevent ISO New England (ISO) from meeting system load and ten-minute operating reserve requirements on four or more consecutive days such conditions would be considered an Energy Emergency.

Because energy shortages may impact a region ability to meet load and reserve requirements, ISO will take actions to address projected energy deficiencies. Because the fuel shortages may occur over an extended period of time, ISO may take actions in advance to address projected shortages in future operating capacity.

This procedure is performed in conjunction with ISO New England Operating Procedure No. 21 – Action During An Energy Emergency (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, Control Room Operations, (or designee) shall, in accordance with the Electric/Gas Operations Committee’s (EGOC) Operations Communications Protocol, communicate with the regional natural gas pipeline/Local Distribution Companies (LDC) 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). The EGOC Operations Communications Protocol is contained in Attachment A of SOP-RTMKTS.0050.0007 - Perform Cold Weather Condition Operations.

| | | |
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3. Responsibilities


NOTE

Any NERC Certified System Operator, certified at the RC level, has the authority to take action(s) required to comply with NERC Reliability Standards

1. The Forecaster is responsible for performing the weekly/daily surveys using Attachment A- Fuel Survey Form – Weekly/Daily Update and the energy shortage evaluations within this procedure.
2. The Operations Shift Supervisor is responsible for implementing, MLCC 2, OP-4, OP-7 and posturing Generators in accordance with this procedure.
3. The Director, Operations and Manager, Control Room Operations are responsible for reviewing information and giving concurrence to the Operations Shift Supervisor to implement and perform the steps of OP-21 outlined in Section 5.2 of this procedure.
4. The Manager, Control Room Operations is responsible for ensuring that all Generator fuel information is destroyed as outlined in OP-21.

4. Controls

- The Fuel Survey Form – Weekly/Daily Update, will be used to collect information
- ISO New England Information Policy is followed
- Generator fuel information is destroyed

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5. Instructions

5.1 Collect and Evaluate Data

NOTE

An Energy Emergency is when the impact of a sustained energy shortage is projected to result in a loss of operable generating capability that would prevent ISO from meeting system load and ten-minute reserve requirements in four or more consecutive days.

5.1.1 Collect Survey Data


1. As directed by the Director, Operations or Manager, Control Room Operations the Forecaster shall conduct weekly/daily fuel surveys using Attachment A– Fuel Survey Form – Weekly/Daily Update.
2. When an Energy Emergency Condition has been declared, the Forecaster shall conduct a new fuel survey using Attachment A and may conduct daily fuel surveys as necessary.

NOTE

The Forecaster shall not modify the availability of any Generator based on information obtained in the fuel surveys without confirming the status with the Designated Entity.

5.1.2 Evaluate for Energy Shortage Conditions

1. The Forecaster shall inform the Operations Shift Supervisor if the analysis performed in SOP-OUTSCH.0040.0020 – Create Seven Day Capacity Margin Forecast indicates that energy emergency conditions are forecasted within the upcoming seven-day load and capacity forecast.
2. With the approval of the ISO COO or his/her designee, the Operations Shift Supervisor may implement Section 5.2 for periods outside of the seven-day load and capacity forecast horizon.


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5.2 Perform Actions for an Energy Emergency

NOTE

The following actions in this procedure are intended to support actions of OP-21 which are taken to mitigate the possibility of future extreme actions of OP-4 and OP-7. Management concurrence or initiation of OP-21 is required. Any NERC Certified System Operator, certified at the RC level, has the authority to take action(s) required to comply with NERC Reliability Standards for real-time actions of OP-4 and OP-7.

1. The Operations Shift Supervisor shall obtain concurrence from Director, Operations and Manager, Control Room Operations prior to performing each of the subsequent steps.
2. When determined that an Energy Emergency exists or is forecasted, the Operations Shift Supervisor shall declare an Energy Emergency and perform the following:
 - Alert the M/LCCs and surrounding NPCC Reliability Coordinators/Balancing Authorities/ (RCs/BAs)
 - Implement M/LCC 2
 - Make an RCIS notification stating ISO is implementing Energy Emergency Action procedures
3. The Operations Shift Supervisor (or designee) shall conduct daily Local Control Center (LCC) and NPCC conference calls while an Energy Emergency is in effect.
4. As necessary, the Forecaster shall:
 - A. Contact the dual-fuel Generators that are scheduled to operate determine the dual-fuel Generators that will volunteer to switch to operation of the fuel source that is not in short supply.
 - B. Inform Operations Shift Supervisor of Generators that have volunteered to switch fuel sources.

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NOTE


OP-21 Part II.B. Step 2, states: “Request that dual-fuel units, that are scheduled to operate, voluntarily switch to operation on the fuel source that is not in short supply.”

5. To inform ISO New England staff of implementation of OP-21 Part II.B. Step 2, the Operations Shift Supervisor shall access the ENS software and select the following:
 - A. “OP-21”
 - B. “Part II.B. Step 2”
 - C. “Additional Notes”
 - a. Include a list of applicable Generators
6. As necessary, the Operations Shift Supervisor shall implement actions of OP-4 in accordance with SOP-RTMTKS.0120.0020 – Implement Capacity Remedial Actions to provide specific relief measures excluding Action 11.

NOTE

OP-21 Part II.B. Step 3, states: “Implement specific relief measures available through Actions of ISO Operating Procedure No. 4 – Actions During a Capacity Deficiency, excluding requesting New England Governor’s to reinforce appeals for voluntary load curtailment.”

7. To inform ISO staff of implementation of OP-21 Part II.B. Step 3, the Operations Shift Supervisor shall access the ENS software and select the following:
 - A. “OP-21”
 - B. “Part II.B. Step 3”


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NOTE

The following steps of this section are to implement OP-21 Part II.B. Step 4. If previous steps of this SOP do not result in the necessary relief from the forecasted regional Energy Emergency, the following steps may be taken as approved by the ISO Chief Operating Officer (COO) (or designee).

It should be noted that actions of this SOP are taken to support OP-21 which are taken to mitigate the possibility of future extreme actions of OP-4 and OP-7. COO concurrence or initiation is required for the following steps, but any NERC Certified System Operator, certified at the RC level, has the authority to take action(s) required to comply with NERC Standards for Real-Time Actions of OP-4 and OP-7.

8. If the above steps do not result in the necessary relief from the forecast (or actual) Energy Emergency, the COO (or designee) shall request the Operations Shift Supervisor to implement the following actions once concurrence with the Director, Operations or Manager, Control Room Operations is obtained:
 - A. Implement Action 11 of OP-4.
 - B. Under extreme conditions, the Operations Shift Supervisor shall order load shedding by implementing ISO Operating Procedure No. 7 – Action in an Emergency (OP-7).

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NOTE

OP-21 Part II.B. Step 3, states:

“Implement a New England Governor’s appeal in accordance with Operating Procedure No. 4 – Action During a Capacity Deficiency: Request New England State Governors to reinforce appeals for voluntary load curtailment and the declaration of a Power Warning.

Under extreme conditions, the ISO will seek relief through load shedding actions available through implementation of ISO Operating Procedure No. 7 – Action in an Emergency.”

9. The Operations Shift Supervisor shall access the ENS software to inform ISO staff implementation of OP-21 Part II.B. Step 4 by performing the following:


A. Select:

- (1) “OP-21”
- (2) “Part II.B. Step 4”

10. When the Energy Emergency no longer exists and near-term Energy Emergency is not forecasted, the Director, Operations or Manager, Control Room Operations shall cancel the actions being taken under this procedure.

A. When Energy Emergency actions are cancelled, the Operations Shift Supervisor shall:


- (1) Cancel each step of OP-21 as necessary.
- (2) Access the ENS software to inform ISO staff of cancellation of each step OP-21 by selecting the following:
 - a) “OP-21”
 - b) As applicable
 - i. “Part II.B. Step 2”
 - ii. “Part II.B. Step 3”.
 - iii. “Part II.B. Step 4”
- (3) Make an RCIS notification of the cancellation of OP-21.
- (4) Notify LCCs and NPCC RCs/BAs of the cancellation of OP-21.

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NOTE

OP-21 requires ISO make best efforts to either destroy all Generator fuel information in its possession (in any form) or return such information to the applicable furnishing Governance Participant when ISO is finished with the Generator fuel information within, but no later than, 3 months after the Energy Emergency event.

- (5) Direct the Forecaster to destroy or return Generator fuel information used during the Energy Emergency.
- (6) Cancel M/LCC 2 if applicable.

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6. Performance Measures

None.

7. References

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 – Action During An Energy Emergency (OP-21)

Master Local Control Center No. 2 – Abnormal Conditions Alert (M/LCC 2)


SOP-OUTSCH.0040.0020 – Create Seven-Day Capacity Margin Forecast

SOP-RTMKTS.0120.0020 – Implement Capacity Remedial Actions

SOP-RTMKTS.0050.0007 – Perform Cold Weather Condition Operations

8. Revision History


| Rev. No. | Date | Reason | Contact |
|----------|----------|--|--------------|
| Original | 11/28/05 | Original | Steve Weaver |
| 1 | 12/19/06 | Revised for New OP 21 which has no sunset clause | Steve Weaver |
| 2 | 05/08/07 | Clarified the approval process for initiating extreme steps of this procedure as part of the annual review | Steve Weaver |
| 3 | 10/04/07 | Revised to incorporate reference to the new Electric/Gas Operations Committee's (EGOC) Operations Communications Protocol, as Approved by the EGOC on September 27, 2007 | Steve Weaver |
| 4 | 03/16/09 | Global changes: Header Annual Review Date to Valid Through: (2 years from effective date), Manager of Operations to Director, Operations and Manager of Control Room Operations to Manager, Control Room Operations; Minor editorial and formatting changes;; Global change: minor typological corrections; Added new step 5.2.10.F | Steve Weaver |

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| 5 | 06/01/10 | Biennial review by procedure owner; Global editorial changes to grammar, punctuation, and the use fo defined acronyms; Various locations reworded NERC Certified System Operator responsibilities; Various made specific use of Generator rather than Resource; Replaced Control Area/Balancing Authority (CA/BA) with Reliability Coordinator/Balancing Authority (RC/BA); Changed Step 5.2.8. to reflect changes to OP # 4 Actions to conform to the DRI and FCM OP #4 changes Reworded step 5.2.10 and its sub-steps and NOTE | Steve Weaver |
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9. Attachments

Attachment A - Fuel Survey Form – Weekly/Daily Update

| | | |
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Attachment A - Fuel Survey Form – Weekly/Daily Update

MARKET PARTICIPANT NAME: _____

REPORTING DATE: _____

| Station/Unit Name | Asset ID | Fuel Type | Current Fuel Inventory in MWhr Equivalent | Expected Deliveries in MWhrs Equivalent | | | |
|-------------------|----------|----------------|---|---|----------------------|----------------------|----------------------|
| | | | | Week 1 MM/DD/YYYY | Week 2 MM/DD/YYYY | Week 3 MM/DD/YYYY | Week 4 MM/DD/YYYY |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |
| | | Primary Fuel | | | | | |
| | | Secondary Fuel | | | | | |

PLEASE LIST ANY OTHER CONDITIONS THAT MAY LIMIT OPERATIONS DURING THIS PERIOD: _____

* Note: All dates are for week ending Friday (MM/DD/YYYY)

** This survey form does not apply to the following Resources: Settlement Only Generators, Generators less than 5MW, hydro Generators, other Intermittent Resources