




# System Operating Procedures

SOP-RTMKTS.0120.0010

Implement Operations During Abnormal  
Conditions

Effective Date: September 27, 2010  
Revision No. 18

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	Approved By: Director, Operations	Valid Through: June 1, 2012

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## Implement Operations During Abnormal Conditions

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## 1. Objective

The objective of this procedure is to improve the reliability of the system during critical operating periods. This procedure documents the responsibilities of ISO New England (ISO) staff in making the decision to invoke Master/Local Control Center Procedure No. 2 - Abnormal Conditions Alert (M/LCC 2) and specific communication logistics. This procedure does not in any way change the intent of the M/LCC 2 procedure but rather is intended to clarify responsibilities delegated to ISO staff by M/LCC 2. In particular, M/LCC 2 directs ISO to utilize judgment in determining when to implement M/LCC 2; this procedure provides direction to ISO staff on how that judgment shall be made.

Additionally, this procedure directs ISO staff on the detailed communications required by ISO in order to support its assigned responsibilities as set forth in M/LCC 2.

## 2. Background

M/LCC 2 is a procedure used by ISO and the Local Control Center (LCC) to alert power system operations, maintenance, and test personnel that abnormal power system conditions exist or are anticipated. Once notified, these personnel are expected to take precautions so that routine maintenance and test activities associated with Generators, Dispatchable Asset Related Demands (DARD), Real-Time Demand Response, Real-Time Emergency Generation, transmission lines, substations, computer systems, and communications equipment do not further jeopardize the reliability of the power system. Some abnormal power system conditions affect pool-wide reliability. Effects of other conditions may be limited to a single LCC. Accordingly, provision is made in M/LCC 2 for ISO New England M/LCC 2 Abnormal Conditions Alert notifications and LCC M/LCC 2 Abnormal Conditions Alert notifications.

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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 Operations Shift Supervisor is responsible for identifying situations when M/LCC 2 might be appropriately implemented or cancelled, making the decision to implement or cancel M/LCC 2 during non-business hours, and assigning System Operators the task of communicating the alert to other parties.
2. The Manager, Control Room Operations is responsible for convening a conference call, if warranted, and as time permits, to discuss the need for implementation of M/LCC 2 with the Master/Local Control Center (M/LCC) Heads during normal business hours.
3. The System Operators are responsible for communicating the alert information to the appropriate parties per this procedure when directed to do so by the Operations Shift Supervisor.
4. The Outage Specialist/Engineer is responsible for evaluating the reliability of the transmission system on a day-ahead basis and communicating anticipated conditions to appropriate parties in accordance with this procedure.
5. The Security Operator is responsible for evaluating the reliability of the transmission system on a current day basis and communicating anticipated conditions to appropriate parties in accordance with this procedure.

### 4. Controls

- Only NERC Certified System Operators, certified at the RC level, shall be allowed to take real-time actions involving the initiation of M/LCC 2

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## 5. Instructions

### 5.1 Decision to Implement M/LCC 2

#### NOTE

If, in the judgment of the Operations Shift Supervisor, there is insufficient time to arrange the conference call to discuss the implementation of M/LCC 2, the Operations Shift Supervisor should render a decision independently.

#### 5.1.1 During Business Hours

1. During business hours, the Manager, Control Room Operations or their designee shall:
  - A. If required, convene a conference call with the appropriate M/LCC Head(s) to make a decision to implement M/LCC 2 in accordance with Section 5.1.3.
  - B. Immediately notify the Operations Shift Supervisor of the decision reached in the conference call.

#### 5.1.2 During Non-Business Hours


1. During non-business hours, the Operations Shift Supervisor shall make the decision to implement M/LCC 2 in accordance with Section 5.1.3.
2. If time permits, the Operations Shift Supervisor should contact the Manager, Control Room Operations for input into the decision process before implementation.

#### 5.1.3 Decision Making Process

#### NOTE

The appropriate M/LCC 2 Implementation may avert a contingency the system might not be able to withstand. The intent is to implement M/LCC 2 when the system conditions are anticipated to be close to or beyond the limits of reliability. The M/LCC 2 Abnormal Conditions Alert procedure is intended to reduce or eliminate the risk of losing equipment due to testing or other high risk activities whenever the system is stressed.

1. If Operating Reserve amounts drop within 200 MW of the TMOR requirement and all "RT Only MWs" export transactions have already been reduced in accordance with SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action, the Operations Shift Supervisor shall consider M/LCC 2 Implementation.

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2. If any of the following conditions exist or are anticipated, the Operations Shift Supervisor shall implement M/LCC 2:

- Transmission voltages and/or reactive reserves are low (see ISO New England Operating Procedure No. 12 - Voltage and Reactive Control (OP-12), Appendix A
- It is not possible to provide contingency protection in accordance with ISO New England Operating Procedure No. 19 - Transmission Operations (OP-19)
- Cold Weather Event is declared
- Other system conditions exist in which the Bulk Electric System (BES) is being credibly threatened to the extent that operation within accepted reliability standards might be difficult to maintain

**Examples:** severe ice storm, hurricane, severe Solar Magnetic Disturbance (SMD), act of terrorism, the President or a U.S Government agency (Department of Health and Human Services) has implemented the National Response Plan (NRP) to mitigate a possible Pandemic Influenza incident or any other credible threat to power system security.

**NOTE**

Any LCC may independently implement M/LCC 2 for its region and issue an “LCC M/LCC 2 Abnormal Conditions Alert” on its own. In this case the LCC will notify ISO prior to the alert for concurrence and request ISO to notify the Generators/DARDs within its LCC of the implementation.

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## 5.2 M/LCC 2 Implementation Notifications

### NOTE

If any LCC declares an “M/LCC Abnormal Conditions Alert,” ISO shall use the ENS software to notify Generators/DARD Designated Entities (DEs) and Demand Designated Entities (DDEs) within that LCC.

When M/LCC 2 Implementation notification is initiated using the ENS software:


- ISO Management and Staff will receive an email notification
- The Generator/DARD DEs and DDEs will receive telephone notification

1. When M/LCC 2 is implemented, the Operations Shift Supervisor (or designee) shall initiate M/LCC 2 Implementation notification using the ENS software.


### NOTE

After receipt of the e-mail, Market Support Services and Corporate Communications will confirm actions being taken by the Control Room by calling (in the following order) Director, Operations; Manager, Control Room Operations; or the Operations Shift Supervisor prior to making external notifications involving Control Room emergency actions.

2. If not previously performed, the Operations Shift Supervisor (or designee) shall make verbal notifications of the M/LCC 2 Abnormal Conditions Alert Implementation to each of the following:
  - CONVEX
  - Maine
  - New Hampshire
  - NSTAR
  - REMVEC
  - VELCO
  - NYISO
  - NBSO
  - HQ (TransEnergie)
  - IESO

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3. If the ENS software fails, the Control Room staff shall make M/LCC 2 Implementation verbal notifications to all Generator/DARD DEs and DDEs.
4. The Operations Shift Supervisor (or designee) shall log the declaration of M/LCC 2 Abnormal Conditions Alert Implementation in the Control Room Logserver as follows:
  - Time event started
  - LCC notifications
  - Expected duration of M/LCC 2 Abnormal Conditions Alert

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### 5.3 M/LCC 2 Cancellation Notifications

**NOTE**

Any LCC may independently cancel the M/LCC 2 Abnormal Conditions Alert for its region and issue a “Cancellation” on its own. Prior to cancelling the alert, the LCC will notify ISO for concurrence and request ISO to notify the Generator/DARD DEs and DDEs within the LCC region of the M/LCC 2 Cancellation.

1. When the conditions for M/LCC 2 Implementation described in Section 5.1.3.2 no longer exist or are no longer anticipated, the Operations Shift Supervisor shall cancel M/LCC 2 Abnormal Conditions Alert.

**NOTE**

If any LCC cancels a “Local M/LCC Abnormal Conditions Alert,” ISO shall use the ENS software to notify the Generators/DARD DEs and DDEs within that LCC region.


When M/LCC 2 Cancellation is initiated using the ENS software:

- ISO Management and Staff will receive an email notification
- The Generator/DARD DEs and DDEs will receive telephone notification


2. When M/LCC 2 is cancelled, the Operations Shift Supervisor (or designee) shall initiate the M/LCC 2 Cancellation notification using the ENS software.

**NOTE**

After receipt of the e-mail, Market Support Services and Corporate Communications will confirm actions being taken by the Control Room by calling (in the following order) Director, Operations, Manager, Control Room Operations or Operations Shift Supervisor, prior to making external notifications involving Control Room emergency actions.

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3. The Operations Shift Supervisor (or designee) shall assign System Operators to make verbal notifications of the M/LCC 2 Abnormal Conditions Alert Cancellation to each of the following:
  - CONVEX
  - Maine
  - New Hampshire
  - NSTAR
  - REMVEC
  - VELCO
  - NYISO
  - NBSO
  - HQ (TransEnergie)
  - IESO
4. If the ENS software fails, the Control Room staff shall make M/LCC 2 Cancellation verbal notifications to all Generator/DARD DEs and DDEs.
5. The Operations Shift Supervisor (or designee) shall log the cancellation of the M/LCC 2 Abnormal Conditions in the Control Room Logserver as follows:
  - Time event cancelled
  - LCC notifications

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## 6. Performance Measures

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

- Goal for Corporate performance in CPS1, CPS2 and DCS (Disturbance Control Standard) compliance met

## 7. References

ISO New England Manual for Market Operations Manual M-11 (Manual 11)


ISO New England Operating Procedure No. 4 - Action During a Capacity Deficiency (OP-4)

ISO New England Operating Procedure No. 12 - Voltage and Reactive Control (OP-12)

ISO New England Operating Procedure No. 19 - Transmission Operations (OP-19)


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

SOP-RTMKTS.0120.0020 - Implement Capacity Remedial Action

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## 8. Revision History

Rev. No.	Date	Reason	Contact
0	02/13/03	Initial procedure for SMD	Don Gates
1	05/06/03	Incorporate email address change	Don Gates
2	10/24/03	Changed criteria for decision on declaring MS 2 due to changes in Replacement Reserves	Don Gates
3	11/16/03	Modified Controls and Performance Measures to align with ISO 9001 standards	Don Gates
4	5/10/04	Updated for new Auto Call software	Don Gates
5	9/9/04	Added that a confirmation is needed from Operations prior to Corporate communications posting or disseminating information to external parties involving Control Room emergencies.	Don Gates
6	02/01/05	Updated SOP for RTO terminology	Steve Weaver
7	03/29/05	Revised to incorporate the VELCO Local Control Center	Steve Weaver
8	08/25/05	Revise SOP to reflect current communications of M/LCC 2	Steve Weaver
9	05/30/06	Revised to reflect Replacement Reserve Requirement going to zero and incorporated response for National Response Plan actions	Steve Weaver
10	09/25/06	Revised for ASM Phase 2	Steve Weaver
11	11/30/06	Revised for changes to MR 1 Appendix H	Steve Weaver
12	12/20/07	Revised for NSTAR LCC Status	Steve Weaver
13	06/03/08	Globally defined acronym LCC for Local Control Center for use as applicable after first use in document. Step 3.5 changed to Operator instead of Coordinator Revised various parts to allow the curtailment/reduction of specific contracts as necessary to maintain a sufficient quantity of Operating Reserve in New England.	Steve Weaver
14	03/20/09	Periodic Review Performed	Steve Weaver
15	05/09/09	Global minor editorial changes; Modified the following to reflect changes to ENS software and current practices and management expectations: NOTE for Step 5.1.3; step 5.1.3.1; step 5.1.3.1.B & C; step 5.1.3.2; step 5.1.3.3 and its following NOTE; step 5.2 NOTE; steps 5.2.1; 5.2.2; 5.2.3, 5.2.4, & 5.2.5; & step 5.3 Deleted Attachment A, SOP is no longer Confidential;	Steve Weaver
16	08/27/09	Moved step 5.2.3 to be new step 5.2.1 & modified former step 5.2.2	Steve Weaver

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17	06/01/10	Biennial review by procedure owner; Section 2 added “Real-Time Demand Response and Real-Time Emergency Generation”; Section 3 modified NOTE and step 3.4; Section 4 modified NOTE; Deleted former step 5.1.3.1 and sub-steps; Modified step 5.1.3.1 and 3 <sup>rd</sup> bullet of step 5.1.3.2.; Modified Section 5.2 NOTE; Deleted former step 5.2.1 and bullets; Modified Step 5.2.1, Section NOTE, Step 5.3.1, NOTE prior to Step 5.3.2, Step 5.3.4; Section 7 deleted OP-9, SOPs RTMKTS.0090.0010 & RTMKTS.0100.0010 and added SOP-RTMKTS.0120.0020 as references	Steve Weaver
18	09/27/10	Footer changed page number format to Page X of Y; Step 5.2.2 & 5.2.3 added IESO to list of bullets	Steve Weaver

## 9. Attachments

None