	© ISO New England, Inc. 2011	Master/ LCC Procedure # 16 Seasonal Preparations
		Revision Number: 1 Revision Date: June 24, 2011
Contact: ISO Director, Operations		Approved by: M/LCC Heads
		Review Due Date: June 24, 2013

Master/ Local Control Center Procedure No. 16

(M/LCC 16)

Seasonal Preparations


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1. References

None

2. Purpose

- A. To ensure Local Control Centers (LCCs) conduct an overall assessment of the reliability of the generation and transmission system in New England for the Summer Operating Period (June through September) and Winter Operating Period (December through March). To document that the necessary preparations are made to the Bulk Electric System (BES) to maintain reliability during seasonal periods of peak demand and high power transfers.


3. Introduction

- A. During the Summer Season the BES is subjected to the highest system load demand. Large power transfers require increased reactive capabilities to ensure required voltages can be maintained. Temperature sensitive equipment such as cables and transformers must have adequate cooling to be able to sustain loading at their ratings. Contingencies on the system or planned outages can cause increased loading on remaining equipment which result in increased I^2X losses that can severely impact reactive reserves and cause unacceptable voltages.
- B. During the Winter Season severe weather can affect proper operation of equipment which could degrade system reliability. Temperature sensitive equipment, such as circuit breakers, gas insulated switchgear and air blast circuit breakers are susceptible to leaks and forced outages during extreme cold conditions.
- C. Equipment forced outages will be minimized by performing Seasonal Preparations prior to the heavy system load demands experienced during summer extreme hot periods, and winter extreme cold periods.

4. Responsibilities

- A. The ISO New England (ISO) Manager, Control Room Operations shall ensure the applicable Season Preparations are performed by the LCCs and documented in accordance with this procedure.
- B. The LCCs are responsible for providing complete and accurate information from their equipment Seasonal Preparations.
- C. Action plans will be developed for any problems or deficiencies discovered in the Seasonal Preparations process.

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5. Procedure

5.1 Voltage Reduction Test

- A. During the February and August Master/Local Control Center (M/LCC) Heads meeting, a schedule for the spring and fall voltage reduction tests will be established.


5.2 ISO & M/LCC Joint Training Requirement

- A. By December of each year, the ISO Manager, Operational Performance, Training and Integration will inform the M/LCC Heads that the training scheduled for Cycle 2 of upcoming year will include the following Summer Outlook information:
 - (1) The 50/50 and 90/10 assessment
 - (2) Projected peak load and capacity analysis
 - (3) Summer Capacity Action Plan
 - (4) Expected transmission outages

5.3 Summer Preparations

- A. Each LCC shall ensure the following applicable steps are completed. (Not all steps are applicable to all LCCs.)
 - (1) Complete capacitor maintenance to ensure availability for the summer.
 - (2) Change transformer fixed tap settings where appropriate.
 - (3) Maintain voltage reduction equipment.
 - a. Amend deficiencies exposed from semi-annual voltage reduction test.
 - (4) Transformer pumps and fans shall be proactively maintained.
 - (5) Ensure heat exchangers associated with pipe type cable systems are in service.
 - (6) Perform infrared testing and resolve any hotspots.
 - (7) Perform aerial or foot line patrols.
 - (8) Perform an assessment of generator outages.
 - (9) Review anticipated scheduled transmission outages to ensure they do not impact generation resources during peak load periods.

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- (10) Proactively track outages scheduled to be completed prior to summer peak periods and ensure they are on schedule.
- (11) Adjust summer ratings to reflect system upgrades and modifications.
- (12) Confirm Main Control Center (MCC) and Backup Control Center (BCC) generators are functioning with no outstanding discrepancies
- (13) Ensure on-line and off-line models reflect appropriate seasonal loads and ratings.

5.4 Winter Preparations

- A. Each LCC shall ensure the following applicable steps are completed for winter preparation. (Not all steps are applicable to all LCCs.)
 - (1) Winterize substations and equipment:
 - a. Proactively repair air leaks on circuit breakers.
 - b. Repair SF6 leaks on circuit breakers and busses.
 - c. Ensure heat tracing on auxiliary station equipment is functioning properly.
 - d. Ensure adequate N2 supply to transformers and pipe cable system and repair leakage.
 - (2) Maintain voltage reduction equipment.
 - a. Amend deficiencies exposed from semi-annual voltage reduction test.
 - (3) Change transformer fixed tap settings where appropriate.
 - (4) Perform an assessment of generator outages.
 - (5) Review anticipated scheduled transmission outages to ensure they do not impact generation resources during winter peak load periods.
 - (6) Proactively track outages scheduled to be completed prior to winter peak periods and ensure they are on schedule.
 - (7) Adjust winter ratings to reflect system upgrades and modifications.
 - (8) Confirm Main Control Center (MCC) and Backup Control Center (BCC) generators are functioning with no outstanding discrepancies.
 - (9) Ensure on-line and off-line models reflect appropriate seasonal loads and ratings.

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B. On a weekly basis, ISO will communicate with the regional natural gas pipeline companies to discuss/determine pertinent gas sector information including but not limited to the following:

- (1) Weather and temperature conditions
- (2) Anticipated demand on the regional natural gas pipelines
- (3) Any posted Critical or Non-Critical Notices, especially those concerning pipeline capacity constraints or Operational Flow Orders (OFO).

6. Communications/Reporting Requirements

- A. M/LCC Heads will report and track the status of the Summer Seasonal Preparations at the May M/LCC Heads meeting.
- B. M/LCC Heads will report and track the status of the Winter Seasonal Preparations at the November M/LCC Heads meeting.

7. Logging Requirements

- A. Results from the Seasonal Preparations will be captured and documented in the applicable M/LCC Heads meeting minutes.

8. Revision History

Rev. No.	Date	Reason
0	06/25/09	Original version
1	06/24/11	Biennial review by procedure owner; Updated copyright date in Headers; Replaced page numbers with Page X of Y format; Change all document text to Arial font; Section 2 replaced "bulk power system" with Bulk Electric System (BES); Section 3 Introduction, part A replaced "bulk power system" with "BES"; Section 3 Introduction, part B: replaced "...bus components..." with "...insulated switchgear and air blast circuit breakers..."; Section 5.2.A provided correct title for Mgr, OPTI; Section 5.3.A. (7) replaced "and" with "or" Section 5.4.A.(1) c. replaced "function" with "functioning"; Section 5.4.B Added "On a weekly basis,..." and deleted "...weekly..."

9. Attachments

None.

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