

**APPENDIX A - ESTIMATES OF ADDITIONAL GENERATION AND LOAD RELIEF
FROM SYSTEM WIDE IMPLEMENTATION OF ACTIONS IN
ISO NEW ENGLAND OPERATING PROCEDURE NO. 4 - ACTION DURING A
CAPACITY DEFICIENCY BASED ON A 26,776 MW SYSTEM LOAD**

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APPENDIX A

(Actual MW available may be greater or less than indicated values depending on system conditions and the circumstances of the implementation)

<u>Action #</u>	<u>Description</u>	<u>MW</u>
1	Implement Power Caution and advise Resources with a Capacity Supply Obligation to prepare to provide all associated capacity.	0
	Notify “Settlement Only” generators with capacity supply obligations to monitor the status of reserve pricing to meet those obligations.	0 ⁽¹⁾
	Begin to allow the depletion of 30-minute reserve.	About 600 MW
2	Dispatch Real-Time Demand Resources in the amount and location required.	500 ⁽³⁾
3	Voluntary Load Curtailment of Market Participants’ Facilities	40 ⁽²⁾
4	Implement Power Watch	0
5	Schedule Market Participant-submitted EETs	Variable (could be between 0 and 1,000 MW)
	Arrange to purchase Control Area-to-Control Area emergency	
6	Implementation of 5% VR Requiring More Than 10 Minutes	130 ⁽⁴⁾
	Dispatch Real-Time Emergency Generation Resources in the amount and location required.	350 ⁽³⁾
	Alert NYISO that sharing of reserves within NPCC may be required.	
7	Request Generating Resources not subject to a Capacity Supply Obligation to voluntarily provide energy for reliability purposes.	Variable (could be between 0 and 1,500 MW)
8	Implementation of 5% VR Requiring 10 Minutes or Less	270 ⁽⁴⁾

<u>Action #</u>	<u>Description</u>	<u>MW</u>
9	Transmission Customer Generation Not Contractually Available to Market Participants During a Capacity Deficiency	5
	Voluntary Load Curtailment by Large Industrial and Commercial Customers	200 ⁽²⁾
10	Radio and TV Appeals for Voluntary Load Curtailment Implement Power Warning	200 ⁽²⁾
11	Request State Governors to Reinforce Power Warning Appeals	100 ⁽²⁾
Grand Total		2395 – 4895

- NOTES:
- (1) Based on Summer Ratings. Assumes 25% of total MW Settlement Only units <5 MW will be available and respond.
 - (2) The actual load relief obtained is highly dependent on circumstances surrounding the appeals, including timing and the amount of advanced notice that can be given.
 - (3) The MW values are reviewed on a quarterly basis; actual available MW amounts can be viewed using the demand response dispatch software.
 - (4) The MW values are based on a 26,776 MW system load and the most recent voltage reduction test % achieved.

OP 4 APPENDIX A 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
Rev 1	10/22/04	Updated Demand Response MW availability
Rev 2	12/08/04	Updated Demand Response MW availability
Rev 3	01/18/05	Updated Demand Response MW availability
Rev 4	02/01/05	Updated to conform to RTO terminology
Rev 5	06/02/05	Updated Demand Response MW availability, revised forecasted load and revised voltage reduction amount
Rev 6	08/16/05	Updated Demand Response MW availability
Rev 7	11/02/05	Updated Demand Response MW availability
Rev 8	12/12/05	Updated Demand Response MW availability
Rev 9	1/26/06	Updated Demand Response MW availability resulting from Winter Supplemental Program
Rev 10	06/19/06	Updated Demand Response MW availability
Rev 11	10/18/06	Updated Demand Response MW availability
Rev 12	12/19/06	Updated Demand Response MW availability and revised voltage reduction amounts using latest test data
Rev 13	05/21/07	Updated Demand Response MW availability and revised voltage reduction amounts using latest test data
Rev 14	03/04/08	Procedure Owner Annual Review Revised Peak Load value, updated Demand Response MW and revised voltage reduction amounts using latest test data. In Action #1 replaces “energy” with “any additional operable capacity available under emergency conditions” In Action # 12 added “Alert NYISO that sharing of reserves within NPCC may be required.”
Rev 15	04/21/09	Updated Demand Response MW availability and revised voltage reduction amounts using latest test data
Rev 16	05/19/09	Updated Demand Response MW availability and revised voltage reduction amounts using the latest test data (2009 Spring Voltage Manual Reduction Test)
Rev 17	03/05/10	Updated Demand Response MW availability and revised voltage reduction amounts using the latest test data (2009 Fall Voltage Manual Reduction Test)
Rev 18	06/10/10	Updated to reflect the FCM rule changes and Demand Resource Integration under FCM
Rev 19	01/20/11	Annual review by procedure owner; Reformatted document, changed font to Arial, added Table of contents, added disclaimer to 1 st page footer and added “Hard Copy is Uncontrolled” to all page footers, replaced page number with “Page X of Y” format; Change values of: Step 2 from 670 to 550, Step 6 from 520 to 375 and Grand Total from “2735 – 5235” to “2470 – 4970”
Rev 20	12/15/11	Annual review by procedure owner; Deleted the 2 nd paragraph of the 1 st page footer; Updated 50/50 forecast dependent estimates (Voltage Reduction) to match current 50/50 forecast; Updated Demand Response estimates to reflect current auction trends; corrected footnote 2 attribution, removed from action 1, added to actions 3,10 & 11