

Operating Procedures

ISO New England Operating Procedure No. 4

*Action During a Capacity Deficiency –
Appendix A – Estimates of Additional
Generation and Load Relief*

Effective Date: March 4, 2008
Revision No. 14

**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 28,048 MW SYSTEM LOAD**

(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 generators to prepare to provide any additional operable capacity available under emergency conditions.	0
2	Order on generation <5 MW, opting for OP 4 triggered dispatch per OP 14. Request "Settlement Only" units under 5 MW to come on line via Special Notices	47 ⁽¹⁾
3	Interrupt Real-Time Demand Response, 2 hour or less notification - Block A	121.2 ⁽³⁾
	Interrupt Real-Time Profiled Response Resources	16.9 ⁽³⁾
4	Interrupt Real-Time Demand Response, 2 hour or less notification - Block B	0 ⁽³⁾
5	Interrupt Real-Time Demand Response, 2 hour or less notification - Block C	0 ⁽³⁾
6	Begin to allow depletion of 30-minute reserve	About 600 MW, depending on NE's 2 nd largest contingency
7	Interrupt Real-Time Demand Response, 2 hour or less notification - Block D	0 ⁽³⁾
8	Interrupt Real-Time Demand Response, 2 hour or less notification - Block E	0 ⁽³⁾

<u>Action #</u>	<u>Description</u>	<u>MW</u>
9	Voluntary Load Curtailment of Market Participants' Facilities	40
	Interrupt Real-Time Demand Response - 30 minutes or less notification, not requiring voltage reduction to be implemented	498.4 ⁽³⁾
	Implement Power Watch	0
10	Transmission Customer Generation Contractually Available to Market Participants During a Capacity Deficiency	5
11	Schedule Market Participant-submitted EETs	Variable (could be between 0 and 1,000 MW)
	Arrange to purchase Control Area-to-Control Area emergency	
12	Implementation of 5% VR Requiring More Than 10 Minutes	292 ⁽⁴⁾
	Interrupt Real-Time Demand Response – 30 minute or less notification, requiring voltage reduction to be implemented	949 ⁽³⁾
	<i>In later Actions of OP 4, the New England Control Area ten-minute reserve may be allowed to diminish to maintain an absolute minimum required level.</i>	<i>About 1,000 MW, depending on system conditions and circumstances and on the New England Control Area's largest contingency</i>
	Alert NYISO that sharing of reserves within NPCC may be required.	
13	Implementation of 5% VR Requiring 10 Minutes or Less	261 ⁽⁴⁾
14	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⁾

Total Action 14 200-205

<u>Action #</u>	<u>Description</u>	<u>MW</u>
15	Radio and TV Appeals for Voluntary Load Curtailment Implement Power Warning	200
16	Request State Governors to Reinforce Appeals for Voluntary Load Curtailment and Declaration of Power Warning	100

Grand Total 4443 – 5442

- 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 eLution software.
 - (4) The MW values are based on a 28,048 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.”