



Steve Gould  
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**TO:** NEPOOL Markets Committee, NEPOOL Reliability Committee

**SUBJECT:** Implementation of ISO New England Operating Procedure #4 on Monday September 3, 2018

On Monday September 3, 2018, ISO New England implemented Operating Procedure #4 (OP#4), Action During a Capacity Deficiency, to manage a deficiency in Ten and Thirty Minute Operating Reserve. ISO entered M/LCC 2, Abnormal Conditions Alert at 15:15 due to numerous forced generator outages and loads running over the forecast curve. Over the course of the day, several resources had significant outages and reductions totaling approximately 1,600 MW, which included a large loss of approximately 1,000 MW of capacity occurring between 15:00 and 15:30. In addition, the load exceeded forecast by over 2,500 MW due to higher than forecast temperatures and dew points across the six state region. Notably, the peak temperature and dew point for the daytime hours in Boston were 94 and 73 with a forecast of 89 and 70 while in Hartford the peak temperature and dew point for the daytime hours were 94 and 74 with forecasts of 90 and 71. These resource outages and reductions combined with the increased load resulted in an operating reserve deficiency. On Monday morning the operating reserve projection was a surplus of 2,054 MW, based on a forecast peak load of 20,590 MW. The forced outages and reductions from the capacity analysis below totaled 3,649 MW compared to 1,715 MW value from the morning report. The actual imports were 3,355 MW versus the 2,861 MW value from the morning report. In order to manage the reserve deficiency ISO implemented OP#4 Actions 1 and 2 at 15:30 and Actions 3, 4, and 5 at 16:00. By 19:00 as some of the resources returned and the load moderated, OP#4 Actions 3, 4, and 5 were cancelled. At 20:00 OP#4 Actions 1 and 2 were cancelled. As load continued to decrease M/LCC 2 was cancelled at 21:00. During the event, emergency purchases were obtained from the NYISO totaling 251 MW from 17:00 to 17:30 and 100 MW from 17:30 until 18:00, while emergency purchases from New Brunswick totaled 150 MW from 16:20 until 17:14 and then 229 MW from 17:14 until 18:00.

Action(s)	Implemented	Cancelled
M/LCC 2	15:15	21:00
OP#4 Action 1	15:30	20:00
OP#4 Action 2	15:30	20:00
OP#4 Action 3	16:00	19:00
OP#4 Action 4	16:00	19:00
OP#4 Action 5	16:00	19:00

The capacity analysis below reflects system conditions during hour ending 17:00 leading into Hour 1800.

Capacity Supply Obligation (CSO)	+	30,239
Capacity Additions > CSO	+	582
Outages and Reductions	-	3,649
Generation Unavailable Due to Start Time	-	6,470
NYISO Purchases	+	1,400
NBSO Purchases	+	797
HQ Purchases	+	1,158
Total Available Capacity	=	24,057
New England Load		22,667
Operating Reserve Requirement		2,108
Net Capability Required		24,775
Capacity Margin	Total Available - Required	-718

CC: ISO Management  
 Master Local Control Center Heads  
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 Alexander Kuznecow  
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