SEPTEMBER 9, 2016 | MANCHESTER, NH

NEPOOL PARTICIPANTS COMMITTEE 09/09/16 MEETING, AGENDA ITEM #4

NEPOOL Participants Committee Report

September 2016

ISO-NE PUBLIC

ISO new england

Vamsi Chadalavada

EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER

Table of Contents

 Highlights 	Page	3
• OP-4 Event	Page	10
 System Operations 	Page	37
 Market Operations 	Page	49
 Back-Up Detail 	Page	66
 Load Response 	Page	67
 New Generation 	Page	69
 Forward Capacity Market 	Page	76
 Reliability Costs - Net Commitment Period Compensation 		
(NCPC) Operating Costs	Page	83
 Regional System Plan (RSP) 	Page	114
 Operable Capacity Analysis – Fall 2016 	Page	142
 Operable Capacity Analysis – Preliminary Winter 2016/17 	Page	149
 Operable Capacity Analysis – Appendix 	Page	156

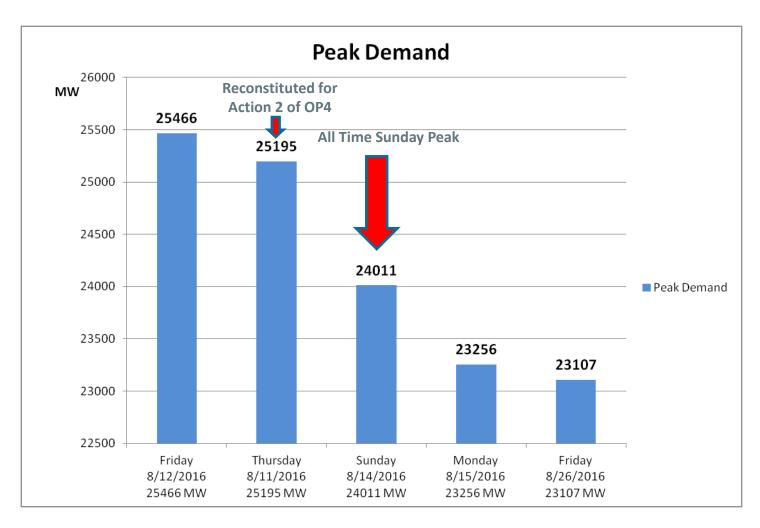
ISO-NE PUBLIC

HIGHEST DEMAND DAYS AUGUST, 2016



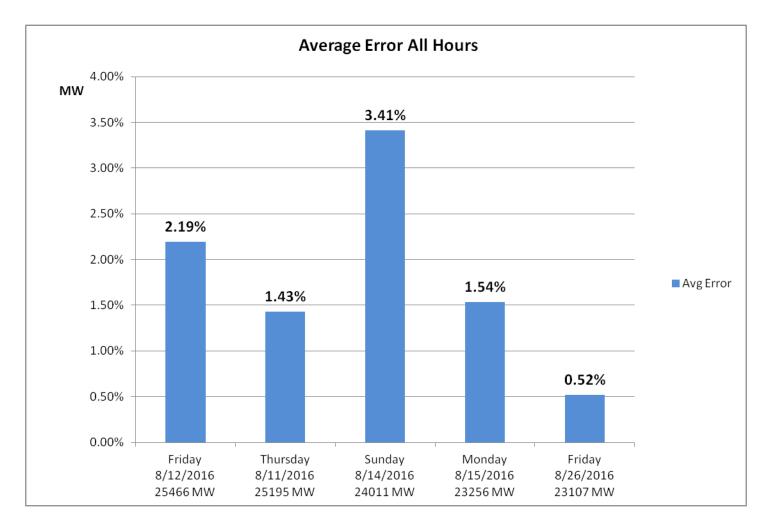
Five Highest August Demand Days

The highest demand days so far this year on the ISO New England system were in the middle of August 2016.



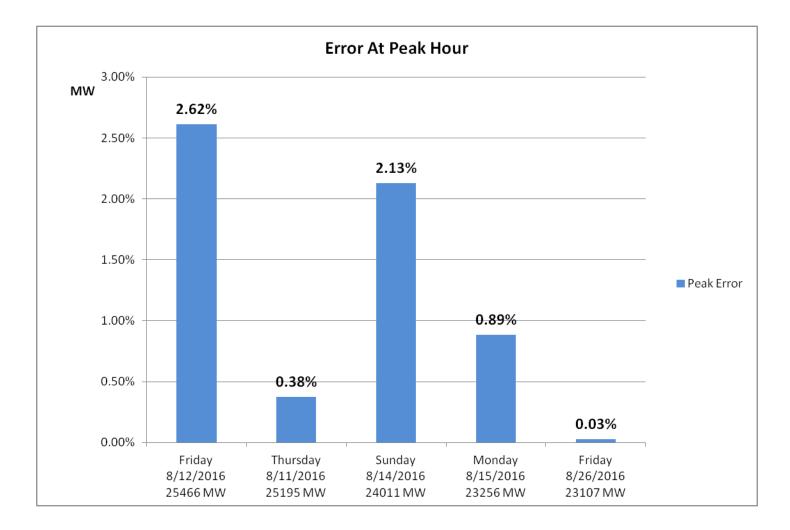
ISO-NE PUBLIC

Average Load Forecast Deviation During Five Highest August Demand Days



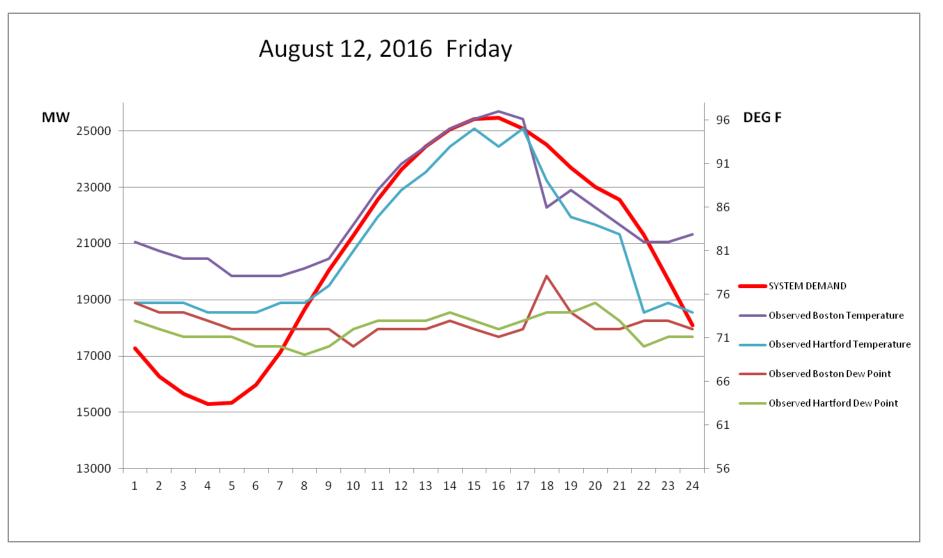
ISO-NE PUBLIC

Load Forecast Deviation During Peak Hour on Five Highest August Demand Days



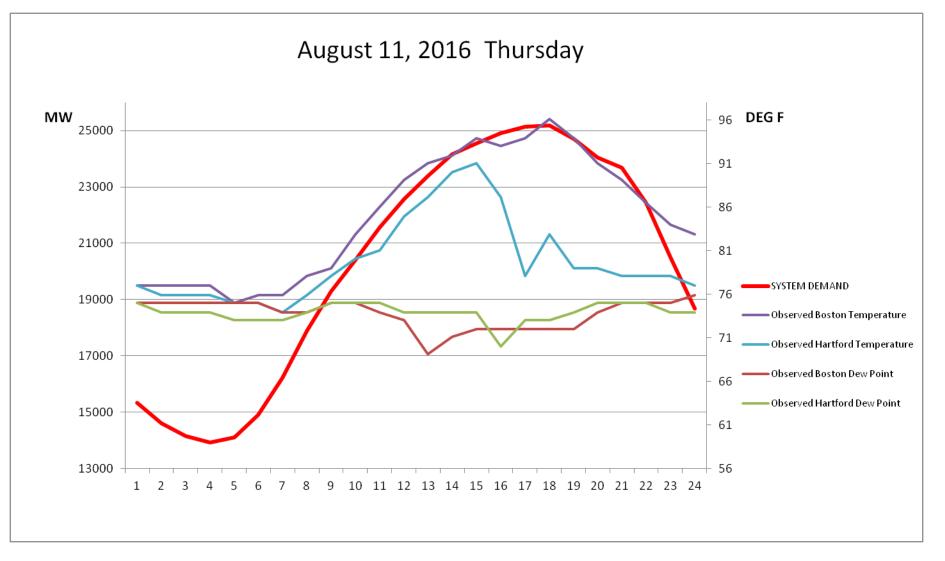
ISO-NE PUBLIC

Highest August Demand Day



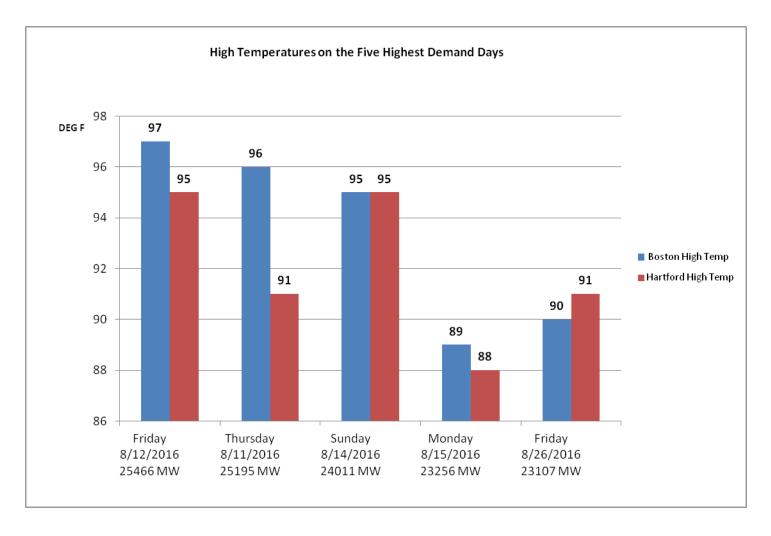
ISO-NE PUBLIC

Second Highest August Demand Day



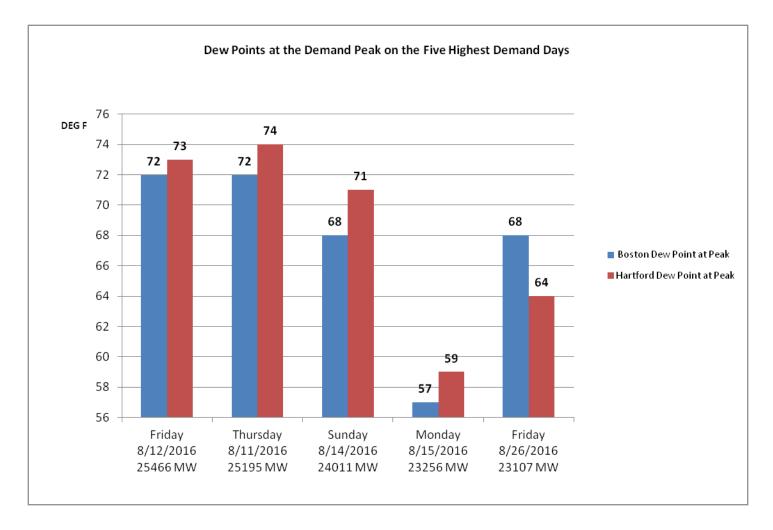
ISO-NE PUBLIC

Highest August Demand Days Temperature



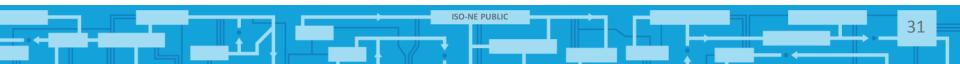
ISO-NE PUBLIC

Highest August Demand Days Dew Points



ISO-NE PUBLIC

COMPARISON OF FIVE TOP PEAK DAYS TO 2016 LONG-TERM LOAD FORECAST



Comparison of Recent Summer Peak Days to 2016 Long-Term Load Forecast

- ISO's long-term summer load forecast uses a 3-day, eight-city weighted temperature-humidity index (WTHI)
- The table below lists the five highest peak demand days and their WTHIs this past summer with respect those of the 2016 50/50 and 90/10 summer peak load forecasts published in the 2016 CELT report

Peak Day	Day of Week	Peak Load*	WTHI
90/10 Forecast	-	29042	81.96
50/50 Forecast	-	26704	79.88
8/12/2016	Fri	25466	81.12
8/11/2016	Thu	25003**	78.45
7/22/2016	Fri	24285	77.89
8/14/2016	Sun	24011	79.95
7/26/2016	Tue	23843	76.89

Notes:

- * Forecast loads are net of passive and active Demand Resources and behind-the-meter PV;
- Actual peak loads are those measured in real-time
- ** Peak is not reconstituted for Real Time Demand Resources dispatched during OP#4, Action 2

ISO-NE PUBLIC

Summer Seasonal Peak: Friday – August 12, 2016 Observed Load vs. 2016 Seasonal Peak Forecast

- On August 12th, the observed weather* at ISO's eight weather stations in the region was hotter than the weather assumed for the 50/50 long-term load forecast, but less severe than the 90/10 forecast
- Despite the hot weather, the observed system peak load on August 12th was about 1,200 MW lower than the 50/50 summer load forecast, primarily due to two factors
 - 1. It was a Friday peak Based on previous analysis, peaks loads on Fridays can be more than 1,000 MW lower than other non-holiday weekdays, given similar weather
 - 2. Areas of localized thunderstorms and rain passed through some load centers immediately preceding and during the peak, resulting in reduced loads
 - Some storms were located in areas outside of ISO's eight weather stations, and were therefore not well reflected in ISO's measured weather during the peak hour

33

• Radar imagery during the peak are shown on the next slide(s)

<u>Note</u>: * ISO's long-term summer load forecast models use a 3-day, eight-city weighted temperature-humidity index (WTHI)

ISO-NE PUBLIC