

## Winter 2013/2014 Actual and Weather Normal Peak Load

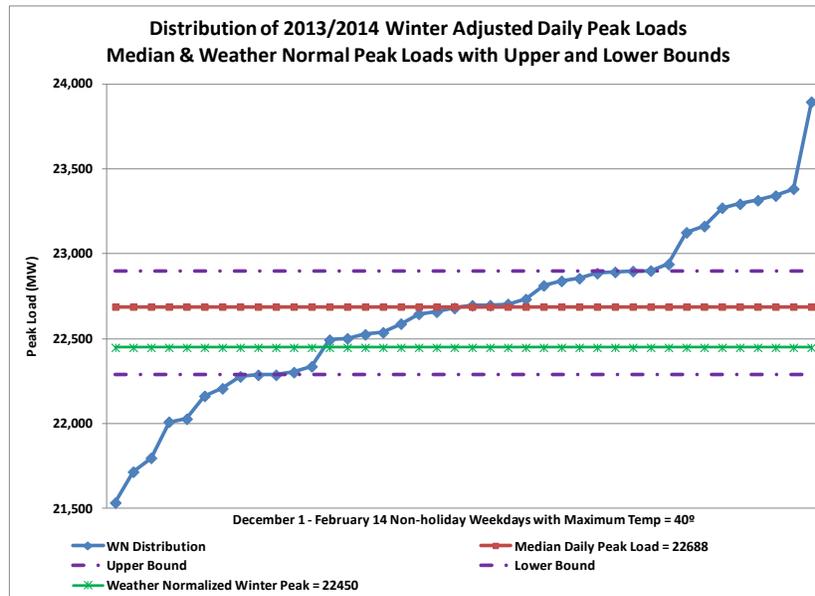
The weather normalized peak load for the winter of 2013/2014 is 22,450 MW, 0.1% higher than the April 2013 forecast of 22,445 MW for the winter of 2013/2014. The ISO-NE actual winter peak load was 21,488 MW (23,427 with passive demand resources added back in).

The weather normal value is derived analytically using the forecast model methodology and historical data through the winter of 2013/2014. It represents the peak load at a temperature of 7.03°F, which is considered to be the temperature at which the winter peak is most likely to occur. This temperature corresponds to the 50th percentile of our extreme weather distribution.

A process of weather normalizing daily peak loads is used to verify the weather normalized peak load value. For this analysis, the peak load for each non-holiday weekday in the December 1 – February 14 heating season (with a maximum temperature of 40° F) is adjusted to reflect the difference between the actual temperature at the time of the daily peak and the expected peak temperature of 7.03°F. Each weather-adjusted daily peak load has an equal probability of occurring; therefore, the median value of this distribution is considered to be characteristic of the seasonal weather normal peak load.

## Distribution of winter 2013/2014 Weather-Adjusted Daily Peak Loads

The chart below shows the distribution of weather-adjusted daily peak loads and the range within which the winter 2013/2014 weather normal peak load is expected to fall. The median falls at the 50<sup>th</sup> percentile of the distribution, and the upper and lower bounds represent the interquartile range, encompassing 75 percent of the distribution. The chart shows that the daily peak load normalization methodology supports the 2013/2014 winter weather normal peak load of 22,450 MW, which falls within the interquartile range.

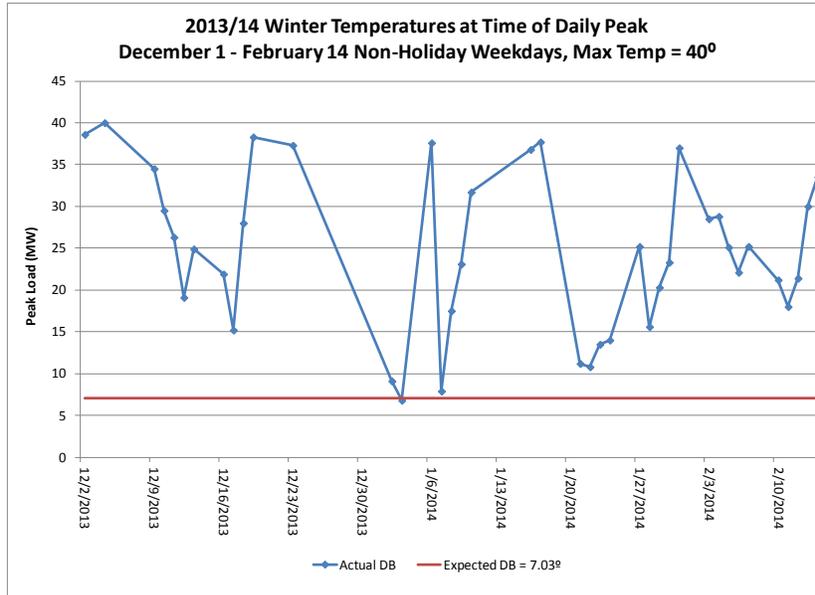


## Winter 2013/2014 Weather and Daily Peak Loads

The next chart shows the New England dry-bulb temperatures at the hour of the daily peaks for the days used in the normalization process. The winter 2013/2014 peak load occurred in December at a temperature of 15.2° F, which is substantially warmer than expected at the time of the winter peak (mid January) but colder than the expected temperature for that time of the year. This likely reflects the impact of December's lighting load, relative to January. There were seven days in January with colder peak temperatures, and three of these were below 10°. The three

coldest days occurred during the first week of January and may reflect the impact of the holiday season and the impact of major snow storms with their attendant closings. The other four days occurred in late January, when the lighting load begins to diminish.

The average dry bulb temperature for the days used in the analysis was 24.7°F, with a standard deviation of 9.5°F. The minimum temperature was 6.8°F, occurring on Friday, January 3.



The actual daily peaks used in the normalization process and their weather-adjusted values are shown in the chart below. The ISO-NE actual winter peak load is one of the days used in the normalization. Note how the weather adjustments reduce the variation in the daily peaks.

