



LOCATIONAL MINIMUM INSTALLED CAPACITY
REQUIREMENTS STUDY

COVERING THE NEW YORK CONTROL AREA
For the 2008 – 2009 Capability Year

Approved by the Operating Committee
February 28, 2008

Locational Minimum Installed Capacity Requirements Report

I. Recommendation

This report documents a study conducted by the New York Independent System Operator (NYISO) to determine Locational Minimum Installed Capacity Requirements (LCRs) for the New York City (zone J) and Long Island (zone K) Localities for the 2008 - 2009 Capability Year beginning May 1, 2008.

Currently, the New York City LCR is eighty percent (80%) of the New York City forecast peak load for the 2007 – 2008 Capability Year. The Long Island LCR is ninety-nine percent (99%) of the Long Island forecast peak load for the 2007 – 2008 Capability Year.

The New York State Reliability Council (NYSRC) in its 2008 Installed Reserve Margin (IRM) study report¹ identified the lowest feasible locational requirements of 79% for NYC and 94% for LI. The NYISO then determines the actual LCRs taking into consideration changes that have occurred since the NYSRC approved the IRM base case. This year, these changes include a final ICAP load forecast and the announced delay of the in-service date of the Millwood capacitor banks.

Based on the NYSRC base case for the 2008 – 2009 Capability Year and the changes identified above, the NYISO recommends that the currently effective LCR of 99% of the forecast peak load for the Long Island Locality be decreased to 94%. Further, the NYISO recommends that the currently effective LCR of 80% of the forecast peak load for the New York City Locality be retained.

II. Updating LCR Values

As its starting point, the NYISO LCR study utilized the statewide Installed Reserve Margin (IRM) study directed by the NYSRC. The IRM study was approved by the NYSRC Executive Committee on December 14, 2007, and is available on the NYSRC web site at www.nysrc.org.

The principal driver for the decrease in LCR for Long Island from last year's value is the addition of the Neptune HVDC tie between eastern PJM and Long Island (zone K). Other factors for this improvement are increased availability of generation units and cable interfaces surrounding Long Island. These improvements resulted in a reduction of the

¹ NYSRC Report titled, "New York Control Area Installed Capacity Requirements for the Period May 2008 Through April 2009", December 14, 2007.

Long Island requirement, as identified in the 2008 IRM study report, by five percent to 94%.

Although the addition of the Neptune cable reduces the minimum capacity requirement for Long Island, the emergency assistance that it can supply also aids New York City (zone J). Improved cable and unit availabilities also have been observed in this zone. These improvements resulted in a reduction of the New York City requirement, as identified in the 2008 IRM study report, by one percent to 79%.

The reduction of the 2007/08 LCR in the zone J requirement is negated, however, by the changes identified since the 2008 IRM study was approved. The delay of the in-service date of capacitor banks at the Millwood substation necessitates re-evaluation of the NYSRC assumption of an increase in transfer capability into NYC. The result is to reset the transfer capability into zone J from zone I to last year’s limit, which is on the order of two hundred megawatts lower than the value used in the 2008 IRM study. This reduction puts upward pressure on the zone J requirement. Further, the increase in the final 2008 ICAP forecast, as indicated in the table below, also puts upward pressure on the zone J requirement.

<u>Area</u>	<u>IRM Forecast (10/07)</u>	<u>Final ICAP Forecast (2/08)</u>
Zone J (NYC)	11,955 MW	11,963.7 MW
Zone K (LI)	5,460 MW	5,423.8 MW
NYCA	33,730 MW	33,808.5 MW

The recommendation to adopt NYC’s LCR at its 2007 level of 80%, is a result of LOLE analysis performed with a reduced transfer limit (without the Millwood capacitor banks) and with the updated final ICAP load forecast for the upcoming year.

III. Summary of Study

This study and its supporting analysis are based on the unified methodology. A full description of the procedure used for the unified methodology can be found as attachment A to the NYSRC’s Policy 5-1.²

The 2008 IRM study base case indicated that the Loss of Load Expectation (LOLE) criterion of not more than 0.1 days/year can be met with a statewide reserve margin of 15% and the lowest feasible locational requirements of 79% and 94% for NYC and LI, respectively. The NYISO’s LCR study then examines, as sensitivities, newly identified changes described above, that could impact or update the lowest feasible locational requirements identified in the IRM study.

² Policy 5-1 can be found on NYSRC.org website at ‘[http://www.nysrc.org/pdf/Policies/Policy 5-1 Final 11-14-06.pdf](http://www.nysrc.org/pdf/Policies/Policy%205-1%20Final%2011-14-06.pdf)’.

Based on the NYSRC base case for the 2008 – 2009 Capability Year and consideration of the final ICAP load forecast and the delay of the in-service date of the Millwood capacitor banks, the LOLE criterion of 0.1 days/year is met with an LCR of 94% for the Long Island Locality and an LCR of 80% for the New York City Locality.