



LOCATIONAL MINIMUM INSTALLED CAPACITY
REQUIREMENTS STUDY

COVERING THE NEW YORK BALANCING AUTHORITY AREA
For the 2012 – 2013 Capability Year

NYISO Operating Committee
January 12, 2012

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 2012 - 2013 Capability Year beginning May 1, 2012.

Currently, the New York City (NYC) LCR is eighty-one percent (81%) of the NYC forecast peak load for the 2011 – 2012 Capability Year. The Long Island (LI) LCR is currently one hundred one and a half percent (101.5%) of the Long Island forecast peak load for the 2011 – 2012 Capability Year.

The New York State Reliability Council (NYSRC) in its 2012 Installed Reserve Margin (IRM) study report¹ identified the lowest feasible locational requirements of 83.9% for NYC and 99.2% for LI. The NYISO then determines the actual LCRs taking into consideration changes that have occurred since the NYSRC approved the IRM base case. One of the changes is the completion of the final 2012 ICAP load forecast. Another is the announced retirement of Ravenswood GT 3-4, Site Massena, and Beebe Station 13. Lastly, 280 MW of proposed wind additions will not occur by the summer of 2012. These units include; Cody Road, Allegany Wind, Ellenburg II, Ecogen Prattsburg, Stony Creek, and Marble River.

Based on the NYSRC base case for the 2012 – 2013 Capability Year and the changes identified above, the NYISO recommends that the currently effective LCR of 101.5% of the forecast peak load for the Long Island Locality be lowered to 99.0%. Further, the NYISO recommends that the currently effective LCR of 81% of the forecast peak load for the New York City Locality be increased to 83.0%.

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 2, 2011, and is available on the NYSRC web site at www.nysrc.org.

For New York City, there were factors that both increased and decreased its LCR value when compared to the current year's value. Factors that tended to lower the NYC LCR were the additions of Astoria II and the Bayonne Energy Center. These new units have better availabilities than the Zone J's existing fleet. This potential reduction, however, was more than

¹ NYSRC Report titled, "New York Control Area Installed Capacity Requirements for the Period May 2012 Through April 2013", December 2, 2011.

offset by an increase in Equivalent Forced Outage Rates (EFORs) of both NYC generation and the cables surrounding NYC. In addition, the forecast SCR performance for the NYC locality decreased, again putting upward pressure on the NYC LCR.

The factors involved in the decrease in LCR for Long Island from the current year's value are; an increase in the forecast performance of the LI SCR program, and a 1.2 percentage point drop in the load forecast uncertainty model for Long Island. Countering these factors, to a lesser degree, was an increase in the EFOR of the LI generators and the cables entering LI.

The reduction in the LCR values when compared to the IRM study report is due to the following reasons:

- the effect of the final load forecast (used in the LCR study) versus the September forecast used for the IRM study. Generally, as the ratio of downstate to upstate load decreases, the LCRs decrease. The below table shows the reduction in downstate to upstate load ratio due to the final load forecast.

<u>Area</u>	<u>IRM Load (MW) Forecast (9/11)</u>	<u>Final 2012 ICAP Forecast (MW)(12/11)</u>	<u>Decrease</u>
Zone J (NYC)	11,607	11,500	107
Zone K (LI)	5,521	5,526	-5
NYCA	33,335	33,294	41
ROS	16,207	16,268	
Downstate/Upstate ratio	1.057	1.047	

- the additional plant retirements taken into account since the IRM study was performed indicate a loss of poorer performing units. This loss increases the net availability of the fleet of units in the zones in which the retirements occur.
- wind units that were projected to materialize will not be in service before this summer's peak period. Since those units have poorer performance than that of the fleet, the removal of those units from the study database puts a minimal amount of downward pressure on the LCRs (minimal because these wind units are all expected to locate in the upstate zones).

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 attachments A and B of the NYSRC's Policy 5-5.²

² Policy 5-5 can be found on NYSRC.org website under Documents/Policies.

The 2012 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 16.1% and the lowest feasible locational requirements of 83.9% and 99.2% for NYC and LI, respectively. The NYISO's LCR study then examined the effects of the final ICAP peak load forecast, changes in additions of new resources, and changes in retirements with consideration of the 16.0% IRM provided by the New York State Reliability Council, in order to decide the final LCRs for the localities.

Based on the NYSRC base case for the 2012 – 2013 Capability Year and consideration of the changes identified above, the LOLE criterion of 0.1 days/year is met with a Minimum LCR of 83.0% for the New York City Locality and a Minimum LCR of 99.0% for the Long Island Locality.