INTERIM REVIEW

OF

RESOURCE ADEQUACY

COVERING THE

NEW YORK CONTROL AREA

For the years 2003 – 2006

As Approved by
Northeast Power Coordinating Council's
Task Force on Coordination of Planning
January 29, 2004

Approved by the RCC on March 18, 2004

EXECUTIVE SUMMARY

This is New York Independent System Operator's (NYISO) 2003 Annual Interim Assessment of its 2002 Area Review of Resource Adequacy covering 2002 through 2006. This assessment is conducted to comply with the Reliability Assessment Program established by the Northeast Power Coordinating Council (NPCC). This assessment follows the resource adequacy review guidelines as outlined in the NPCC B-8 Document "Guidelines for Area Review of Resource Adequacy. "

Results of this interim assessment show that the New York Control Area (NYCA) will comply with the NPCC resource adequacy reliability criterion under the Base and High Load Forecasts.

The New York Control Area has locational ICAP requirements for the Long Island (LI) and New York City (NYC) zones established by the NYISO. Although existing and planned capacity is sufficient to meet Long Island's current 95% locational requirement over the period, NYC will have difficulty meeting the current locational capacity requirement of 80% of the local peak load under the scenario where proposed plants currently under construction are delayed.

INTRODUCTION

This is the first update of the New York's 2002 Triennial Review of Resource Adequacy, which was approved in November 2002.

ASSUMPTION CHANGES

Resources

The 2002 Triennial Review assumed a total of 920 MW cumulative new capacity additions by the year 2004. As of August 2003, 803 MW of new resources have materialized above the 37,100 MW identified in the 2002 Triennial Review. Plants currently under construction[1] will bring that number to 1,864 MW by the summer of 2004. That number will increase further to 3,400 MW by the summer of 2005[2].

[1] Plants deemed under construction by the New York Public Service Commission's Article X process. For plants under 80 MW, a signed interconnection agreement must be in place to be counted as under construction.

[2] Plant additions; 2003 - Athens unit 3 (360 MW), Keyspan Ravenswood (250 MW), and gas turbines in Far Rockaway and Greenport (100 MW); 2004 - Athens units 1 and 2 (720 MW) and two gas turbines in Freeport (101 MW); 2005 – East River (288 MW), Poletti expansion (500 MW), and Bethlehem (750 MW). Note that these are summer ratings.

To be consistent with studies conducted for the New York State Reliability Council (NYSRC), firm purchases are not included as a resource for this assessment. In the summer of 2003, for example, there were over 2,000 MW of external Installed Capacity (ICAP) purchases accepted into the NYCA market.

The installed capacity comparisons between the 2002 Review and this Interim Review are shown in the following summary table.

Table 1. Installed Capacity Comparison

Year	2002 Triennial Review (MW)	2003 Interim Review (MW)	Difference (MW)
2002	37,100	37,183*	+83
2003	37,420	37,903	+483
2004	38,020	38,964	+944
2005	38,020	40,502	+2482
2006	38,020	40,502	+2482

*Actual Available Capacity for summer of 2002

Load

Table 2 compares the NYCA Base and High Load Forecasts used in this assessment with those used in the 2002 Triennial Review. As shown in the table, the annual peak loads used in the 2003 Interim Review is higher than the corresponding values used in the 2002 Triennial Review. The difference is mainly due to the result of the updated load forecast parameters used for the forecast process, including both economy and weather. In addition, the NYISO has changed the load shape used from the 1995 load shape to the 2002 load shape reflecting recent trend analysis[3].

Table 2. Reference Peak Load Forecast Comparison

Year	Base Case Load Forecast		High Load Forecast	
	2002 Triennial Review (MW)	2003 Interim Review (MW)	2002 Triennial Review (MW)	2003 Interim Review (MW)
2002	30,475	31,143*	30,950	N/A
2003	31,053	31,430	31,581	32,370
2004	31,408	31,890	32,042	32,850
2005	31,755	32,290	32,458	33,260
2006	32,086	32,660	32,857	33,640

*Actual 2002 summer peak reconstituted to account for load reduction programs

[3] For a description of this analysis, see "New York Control Area Installed Capacity Requirements, For the Period May 2004 through April 2005, Technical Study Report" available on the nysrc.org website.

Interface Ties

The sub-area representation modeled in this 2003 Interim Review has been modified when compared to the 2002 Triennial Review. The Multi-Area Reliability Simulation (MARS) software now has the ability to model closed interfaces by establishing transfer limits for groups of interfaces. This eliminated the need to include the "Dummy Areas" in the model topology to represent closed interfaces. These changes had no effect on the Loss of Load Expectation (LOLE). Ties to Control Areas outside of NYCA were not changed for this assessment.

Fuel Supply Diversity

The NYISO currently enjoys the benefits of a diverse fuel supply for its capacity resources. Future resources, however, are projected to be fueled primarily by natural gas. Despite an increase in dependency on Natural Gas as a fuel source, those units in critical areas, such as New York City, are required to have a back up fuel supply available. Further, since the NYCA is a summer peaking Area and the availability of Gas supply is adequate during the summer months, the NYISO does not foresee shortages or potential interruptions as problematic over this study period.

New Market Rules

Effective June 1, 2003 the NYISO replaced its monthly Capacity Deficiency Auction with a monthly Spot Market Auction based on three FERC-approved Demand Curves developed by market participants. These Demand Curves are designed to ensure that the minimum reliability requirements in New York City, Long Island and the overall NYCA Installed Reserve Margin (IRM) would be met by increasing the amount of capacity resources purchased to levels above the minimum NYCA Requirements established by the NYSRC and providing an additional incentive for new supply resources to enter the market in advance of increased demand requirements. Instituting this change resulted in installed capacity reserve margins of over 25% for the summer of 2003.

Locational Requirements

Locational requirements are set annually by the NYISO and currently exist at 80% for NYC and 95% for Long Island. Under the scenario where the Ravenswood Cogeneration project is delayed past the summer of 2004, a shortfall of approximately 200 MW could exist in meeting the NYC locational requirement if no other resources materialize. LI will continue to meet its requirement with existing resources.

RESULTS AND CONTINGENCY PLAN

Table 3 summarizes the NYCA system Loss of Load Expectation (LOLE) results for various scenarios. It indicates that the NYCA is in compliance with the NPCC criterion under both the Base and High Load Forecast cases.

Table 3. LOLE under Base and High Load Forecasts

Year	Base Case Load Forecast		High Load Forecast	
	2002 Triennial (Days/Year)	2003 Interim (Days/Year)	2002 Triennial (Days/Year)	2003 Interim (Days/Year)
2002		N/A		N/A
2003	0.004	0.019	0.009	0.095
2004	0.003	0.010	0.010	0.050
2005	0.008	0.005	0.021	0.019
2006	0.017	0.008	0.043	0.031

Table 4 shows the locational reserves under the scenario where projects currently under construction are delayed by a year.

Table 4. Locality Reserve Margins under delayed construction

Year	Long Island Locality			New York City Locality		
	Capacity	Load	Reserve Margin	Capacity	Load	Reserve Margin
2003	5192	4849	107.1%	8824	11069	79.7%*
2004	5192	4977	104.3%	8824	11288	78.2%
2005	5192	5052	102.8%	9215	11484	80.2%
2006	5192	5124	101.3%	9347	11659	80.2%

*NYC has met its locational requirement in 2003 by purchasing over 100 MW of Special Case Resources

There has been a downturn in resource additions projected for NYC. This downturn has been the result of a poor financial climate as well as uncertainties regarding permitting, construction, and interconnection costs. The NYISO will continue to work with all involved parties to remove the barriers associated with resource additions.

CONCLUSION

The New York Control Area will meet the NPCC Resource Adequacy Criterion under both Base Case and High Load Forecast assumptions through the year 2006.

The NYISO has encouraged the addition of over 2,000 MW of external resources to participate in the New York market by the introduction of the monthly Spot Market Auction based on the concept of the three FERC approved demand curves. Even though participation is expected to continue, this report does not include these resources in its projections or findings[4].

Although existing and planned capacity is sufficient to meet Long Island's current 95% locational requirement over the period, NYC will struggle to meet its current 80% locational requirement under the scenario where proposed plants currently under construction are delayed. The NYISO will continue to work with all involved parties to remove the barriers associated with needed resource additions.

[4] The practice of not including the external resources is an extension of the conservative modeling performed under the Installed Reserve Margin studies conducted for the New York State Reliability Council.