New York Independent System Operator, Inc.

Proposed NYISO Installed Capacity Demand Curves

For

Capability Years 2008/2009, 2009/2010 and 2010/2011

DRAFT

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I. INTRODUCTION

The Installed Capacity (ICAP) obligation for New York Load Serving Entities (LSEs) and the market prices for the associated ICAP are determined according to the results of monthly ICAP spot market auctions using separately-established downward sloping ICAP Demand Curves for New York City (NYC), Long Island (LI) and the New York Control Area (NYCA).[1] Section 5.14.1(b) of the NYISO Market Administration and Control Area Services Tariff (Services Tariff) requires the NYISO to perform a review of the ICAP Demand Curves every three years to determine whether the parameters of the ICAP Demand Curves should be adjusted for the next three Capability Years. As part of this review, the NYISO must determine the cost of a peaking unit in the NYCA and each Locality, the projected net energy and ancillary services revenue, and the appropriate shape and slope of the ICAP Demand Curves. For purposes of this review, a peaking unit is defined as the unit with technology that results in the lowest fixed costs and highest variable costs among all other units' technology that are economically viable.

In accordance with the Services Tariff provisions, in the third quarter of 2006, the NYISO solicited proposals from qualified consultants to identify appropriate methodologies and to develop the ICAP Demand Curve parameters for the three Capability Years beginning in May 2008. The NYISO selected the team of NERA (National Economic Research Associates, Inc.), with Sargent and Lundy (S&L) as a subcontractor to NERA (collectively identified as the Consultants). The Consultants began their analysis in December 2006. Through twelve Installed Capacity Working Group meetings between December 2006 and August 2007, NYISO market participants and interested parties provided feedback to the Consultants on their assumptions, analysis, estimates, and preliminary results. On August 3, 2007, the Consultants released their final report for stakeholder review and comment ("NERA/S&L Report").[2]

This proposal contains the NYISO's recommended ICAP Demand Curves to be applicable for the three Capability Years beginning May 1, 2008 through April 30, 2011. In preparing this proposal, NYISO has taken into account the NERA/S&L Report, the recommendations of the NYISO's independent Market Advisor, and the views of interested parties. Issuing this proposal triggers the start of a 30-day time period in which interested parties are entitled to submit requests for review of the NYISO's recommendations to the ISO Board of Directors.

II. CONSULTANT'S METHODOLOGY

The Consultants for this ICAP Demand Curve update process used a different methodology than was used for the last update, which was performed by Levitan &

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[1] The term Rest of State (ROS) is also used when referring to supply in the part of the New York Control Area that does not include the NYC and LI Localities.

[2] "Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator," August 3, 2007, prepared by NERA Economic Consulting, available at *http://www.nyiso.com/public/webdocs/committees/bic_icapwg/meeting_materials/2007-08-07/ICAPWG_Demand_Curve_Study_Report_80307_compared_with_71407.pdf.*

Associates, Inc. ("Levitan"). The Levitan study assumed a fixed amortization period of 20 years and adjusted the weighted average cost of capital and other variables to account for certain risk factors. Levitan based its results on a classical production simulation, first on a deterministic basis (an exact result based on predetermined conditions), and later on a stochastic or probabilistic basis (a process involving a randomly determined sequence of observations each of which is considered as a sample of one element from a probability distribution). These methods do not capture random and emergency real time events. The Consultants that prepared the current study fixed the weighted average cost of capital, debt to equity ratio, and other variables and adjusted the amortization period to account for certain risks. They also used an Econometric Model that recognizes actual market experience that captures random and emergency real time events. See Table itemizing some key comparisons between the two studies. Both studies are equally valid despite following different methodologies. The Consultants that prepared the current study were able to build on the Levitan Study, their own experience and the work of others over the past three years.

Methodology Comparison		
Consultant	Levitan & Associates	NERA
Subcontractor	DMJM Harris	Sargent & Lundy
Year of Study	2004	2007
Technology	ROS – 7FA NYC, LI – GE LM6000	ROS – 7 FA NYC, LI – GE LM 6000 GE LMS-100
Study Base	First of its kind study to determine a cost of new entry (CONE). Limited construction in the Northeast except for LM6000 construction in NYC and LI	Considerable experience gained in PJM and New England in estimating CONE. LMS-100 technology emerged as a viable peaking technology.
Debt/Equity	50/50	50/50
Debt Cost	7.5 %	7.0 %
Equity Cost	12.5 %	12.0 %
Risk & Amortization Period	Assume a fixed 20-year amortization period and allow for the costs of debt and equity to reflect the risks of a rational merchant regarding the underlying investment. While they acknowledge that both capacity surpluses and regulatory uncertainties contribute to lower expected revenues and higher risks and, hence,	Allow the amortization period to vary in order to adjust for merchant risk. Incorporate both the possibility of capacity surpluses and regulatory risk by allowing for a location-specific surplus margin and a 20% likelihood that a generator will recoup only 50% of its required revenues, respectively. . Varied

	justify higher equity returns on investments in merchant plants, their modeling does not incorporate such factors.	Amortization periods: ROS – 14.5 years NYC – 15.5 years LI – 22.5 years
Energy/Ancillary Service Net Revenue (EAS)	Based on a production simulation, first on a Deterministic, then Stochastic basis. These methods did not capture random and emergency real time events.	Used an Econometric Model (with Monte Carlo simulations) recognizing actual experience adjusted to reflect reserve levels. This method was intended to capture random and emergency real time events
Demand Curve	Based Strictly on Annual Levelized Installation Cost, Fixed O&M less estimated New Energy and Ancillary Service Revenue	Explicitly analyzes risks due to bias against allowing capacity to fall below required levels and that over time market prices will be below Demand curve reference point.

The Consultants considered many risks that a developer would consider when making a decision on whether to invest in New York. For example, the Consultants considered the risk that the level of supply will exceed the minimum required in each Locality and in the NYCA. They also considered the impact of the slope of the demand curves and their zero crossing points. The Consultants determined, and the NYISO agrees, that the probability is quite low that the reliability processes in place will allow the level of capacity in either Locality or in the NYCA to fall below the minimum requirement. This means that there is a risk that a developer will not earn revenues above the cost of new entry (CONE), which are necessary to offset the times in which it earns revenues below the CONE, because it could only earn those revenues if there is insufficient capacity to meet the minimum requirements. (The demand curves set reference values at 100% of the minimum requirement.) The Consultants' methodology reflects this risk by allowing the amortization period to vary. The results, as explained in the NERA/S&L Report, are amortization periods of 15.5, 14.5 and 22.5 years for NYC, NYCA, and LI, respectively.

It should be noted that the same risk could be reflected in other mathematically equivalent ways. For example, the same risk could be reflected by a different weighted average cost of capital (WACC) and/or a different amortization period.

III. NYISO'S PROPOSED DEMAND CURVES

NYISO staff have prepared a set of recommendations for adjusting the current ICAP Demand Curve parameters and the underlying assumptions leading to those recommendations. The NYISO's independent Market Advisor has been involved in

reviewing the Consultant's work product and in the development of the NYISO's ICAP Demand Curve update recommendations. The schedule shown in Appendix B identifies the remaining effort in the demand curve update process, culminating in the NYISO's filing of updated demand curve parameters with the Federal Energy Regulatory Commission on or before November 30, 2007.

The fundamental determinants of the demand curves for each Locality and the NYCA are the reference value ($/kW-yr) and the slope of the declining portion of the demand curves. As reflected in the NERA/S&L Report, the primary factor that influences the level of reference values for NYC and LI is the choice of technology for the "peaking unit" to be used as the basis for the analysis. The current demand curve update study (as did the previous study) focused on General Electric technologies, because they are representative of other manufacturers' designs and account for over 50% of the "peaking units" sold both nationally and in New York.

In addition to the choice of technology, there are a number of other factors that significantly influence the reference value of the demand curves, including:

- Whether or not dual fuel equipment is required, particularly in NYC;
- Representation of fixed costs ($/kW or total dollars);
- Assumptions regarding the relative surplus of capacity over the assumed life of the peaking facility, and the degree of annual variation seen in those surpluses;
- Expected levels of energy and ancillary service (including reserves, regulation and voltage support) revenues; and
- Whether or not the curve zero-crossing point should be adjusted.

A. Representation of Installed Costs

In choosing the appropriate peaking technology, the NYISO's Services Tariff does not explicitly indicate whether the unit with "lowest fixed costs"[3] should be chosen based on total cost or cost per kilowatt. The previous demand curve update study selected the appropriate peaking technology based in part on $/kW figures. The relative sizes of the LMS-100 and LM6000 units combined with the numbers of units installed per plant can result in significantly different choices depending upon how the phrase "lowest fixed costs" is interpreted. The LMS-100 unit nameplate rating is 100 MW and the LM6000 nameplate rating is 49.5 MW. For both technologies, the Consultants developed costs for a two-unit installation, which significantly reduces the $/kW cost, but, for obvious reasons, increases the total plant cost. The NYISO concurs with the Consultants' analysis and recommends that fixed costs be measured on a $/kW basis, recognizing the efficiencies of building two-unit sites along with the increased energy and ancillary services revenue captured. Choosing a peaking technology based on total dollars ignores these efficiencies.

[3] Services Tariff, Sheet No. 157.

B. Choice of Peaking Technology

The NERA/S&L Report illustrates the current and proposed demand curves for the NYCA, LI and NYC on pages 19-21. For LI and NYC, the Consultants developed curves for two different peaking unit technologies, the LM6000 and LMS-100. The LM6000 has been extensively used, with more than 200 in commercial operation. The LMS-100 is a new product with little operating history -- there is only one unit in commercial operation in the United States, which has been operating for almost one year. The major components of the LMS-100 technology, however, are based on both GE Frame 6 and LM6000 designs. The gas turbine in the LMS100 has over 100 million hours of operating experience in both aircraft engines and industrial applications. The construction process and requirements for the LMS100 are similar to those of either frame or aeroderivative units. The NERA/S&L Report reflects lower capital and operating costs, per kW, for the LMS-100 than the LM6000, and the LMS-100 also has a better heat rate (9100 BTU/kWh versus 9700 BTU/kWh for the LM6000) that results in a higher capacity factor and energy revenues on a per kW basis.

Based on the Consultants' findings and discussions with the independent Market Advisor, the NYISO recommends the LMS-100 as the technology choice upon which to develop the demand curves in NYC and LI, and the 7FA unit for the NYCA. The LMS-100 has a lower fixed cost on a $/kW basis compared with the LM6000. In New York, five LMS-100 units are identified in the interconnection queue, which NRG has proposed as a market solution in the Comprehensive Reliability Planning Process (CRPP) process. GE reported to the Consultants in May 2007 that at least 13 other units have been sold: 2 in Canada and 11 in California. There are published reports of additional LMS100s planned at other locations in North America.

The gas turbine in the LMS-100 has over 100 million hours of operating experience in both aircraft engines and industrial applications. Nevertheless, there is greater uncertainty with the LMS-100 performance, particularly the forced outage rate, given that the particular configuration of the equipment is relatively unproven. Moreover, the construction process and requirements for the LMS-100 are similar to the frame and aeroderivative units. Thus, the Consultants concluded that the contingency factor in the construction cost estimates need not be increased. Recent increases in LMS-100 equipment costs have also been noted and, therefore, predicting equipment costs over the next three years is subject to some uncertainty. Recognizing these concerns, the Consultants' best estimates as of the time of their report have been left unchanged. In addition, the Consultants also address the perceived performance uncertainty of the technology. According to the Consultants, since initial reports stated the LMS100 availability-rate to be in the high 80 percent range and trending up, a twelve percent forced outage rate as the immature forced outage rate is appropriate for the three years covered by the reset period.

Considering the impact on the demand curves for NYC and LI, the LMS-100 reference value is lower than the value in the current NYC demand curve. For Long Island, the LMS-100 reference value is approximately sixty percent of the current demand curve.

Selection of the LM6000 for the reference value would increase the demand curve reference value by forty percent for NYC and ten percent for LI.

For the NYCA, the 7FA unit is recommended for use in setting the demand curve reference value. It has a lower fixed cost on a $/kW basis compared with either the LMS-100 or LM6000 and is economically viable outside of NYC and LI. Due to NOx emission restrictions and the inability to install selective catalytic reduction equipment on the unit, the 7FA would not be practical in NYC or LI.

C. Treatment of Dual Fuel Equipment

The ability to use either natural gas or fuel oil (*i.e.*, duel-fuel capability) reduces the risk of not having the ability to generate during an interruption of the natural gas supply. This capability adds to the capital cost of development and lowers the operating, or variable, costs. The NYISO's Services Tariff does not require units to be capable of dual fuel operation. Consolidated Edison (Con Edison) claimed in a filing at FERC that its retail gas service tariff can be viewed as requiring dual fuel capability to qualify for Power Generation Transportation Service.[4] Con Edison has also indicated that dual fuel capability is negotiated on a site-specific basis and is not always required. Further, the New York State Reliability Council's Reliability Rules require that the bulk power system be operated such that the loss of a single gas facility does not result in the loss of electric load in NYC.[5] Con Edison and LIPA, with NYISO review and approval, determine the application of this rule.[6]

The Consultants added the capital cost for duel-fuel capability to the hypothetical peaking unit in NYC, which added approximately $6.2 million to the capital costs of the LMS-100. The NYISO concurs with adding the cost of this capability for NYC because of the likelihood that future capacity additions will be required to either have this capability or pay to upgrade the gas system to avoid interruptions in service.

Con Edison indicated at stakeholder meetings that it would not object to adding this cost for NYC, but it also requested that the Consultants determine whether the unit would earn additional energy revenues. Preliminary analysis shows that no significant added revenue benefit would apply.

D. Capital Investment and Other Plant Costs

Capital cost estimates are provided in the NERA/S&LR Report on pages 35-37. Included

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[4] *New York Indep. Sys. Operator, Inc.*, Answer and Leave to File Answer of Consolidated Edison Company of New York, Inc., and Orange and Rockland Utilities, Inc., Docket No. ER07-748-000 (May 11, 2007).

[5] NYSRC Reliability Rules: For Planning and Operating the New York State Power System, Rule I-R3, *available at* http://www.nysrc.org/pdf/NYSRCReliabilityRulesComplianceMonitoring/RRManualVer20Final,07-13-07.pdf.

[6] I-R3 Reliability Rule Applications.

in these costs are direct costs within the Engineering, Procurement and Construction (EPC) contracts, owner's costs not covered by the EPC but including social justice costs, financing costs during construction and working capital and initial inventories. For the LMS-100 in NYC, capital costs are identified as $1,291/kW, while capital costs for the LMS-100 on Long Island are $1,222/kW. For the NYCA, the direct costs for the 7FA are $689/kW. A breakdown of these costs is included in Table II-3 of the NERA/S&L Report. The NYISO concurs with the Consultants' estimates and recommendations.

E. Fixed Operating and Maintenance Costs

Fixed operating and maintenance costs are discussed in the NERA/S&L Report on pages 37-39. It is assumed that the land associated with the plant site is leased. Property taxes are based on those typical in the jurisdictions chosen for each market (NYC, LI, and Capital zone). The NYC property taxes are substantially impacted by the Industrial and Commercial Incentive Program ("ICIP"), which grants a property tax exemption for the first 11 years of the project, followed by a 20% decline in the exemption each year for four years with full taxes due in the 16th year and thereafter. For purposes of determining cash flow over the 30-year assumed project life, NYC Class 4 property tax rate is assumed in years in which the ICIP exemption is not applied. The NYISO concurs with the Consultant's recommendations.

F. Variable Operating and Maintenance Costs

Variable operating and maintenance (O&M) costs are discussed in the NERA/S&L Report on pages 39-41. Variable O&M costs are primarily driven by periodic maintenance cycles: for the LMS-100, maintenance is recommended every 50,000 factored operating hours; for the 7FA, the shorter of 48,000 hours or 2,400 factored starts is recommended. Other variable O&M costs are directly proportional to plant generating output, as outlined in the report. The NYISO concurs with the Consultants' recommendations.

G. Fuel Costs

Fuel Costs are discussed in the NERA/S&L Report on pages 41-42. In addition to the direct fuel costs, which are determined statistically from historical fuel prices, the analysis captures transportation costs. The NYISO concurs with the Consultants' recommendations.

H. Assumptions Regarding the Expected Level of Capacity

Expectations as to the amount of installed capacity relative to the annual requirement will impact the level of energy and ancillary services revenues captured by a new peaking unit. For the three-year period covered by this demand curve update, the NYISO recommends using a capacity level of 100.5% of the target installed capacity level for computing energy and ancillary services revenue. This level comports with the language in the Services Tariff stating that energy and ancillary services calculations will be done

"under conditions in which the available capacity would equal or slightly exceed the minimum Installed Capacity requirement."[7] Since revenues are estimated for the nominal life of the facility (thirty years), capacity levels are modeled at 104% of the installed capacity requirement in NYC and LI, and at 102.8% of the NYCA requirement for years 4-30. As the Consultant notes on p. 65 of the report:

> *While we believe that we have selected variables for these values that both are plausible and consistent with the RNA [Reliability Need Assessment] process and that produce results that introduce a reasonable but not excessive degree of merchant risk, we do not claim that they are the only plausible values for these variables. We are guided in the selection of these variables by the results that they produce. We then use the Demand Curve Model to produce results that are consistent with and responsive to other assumptions – for example, the Demand Curve zero crossing point and technical progress assumption.*

I. Net Revenue Offsets

The Consultants have used historical data from 5/1/2003 through 12/31/2006 to benchmark the operation of the NYISO system. A statistical model was developed to identify and vary any causal variables that may impact future prices. These prices are used to dispatch the hypothetical peaking unit, calculating both day-ahead and real-time energy revenues while recognizing commitment considerations and operating constraints.

The study results indicate expected energy and ancillary services revenue of $7.31/kW-year for the NYCA, $64.89/kW-year in NYC, and $89.98/kW-year on LI (all figures in 2008 dollars) for the technologies chosen. Compared with the last demand curve update, these figures are higher in NYC and LI (by approximately $12 and $48, respectively), and lower for the NYCA by approximately $13. The relatively efficient heat rate of the LMS-100 is primarily responsible for the increased energy revenues seen for NYC and LI.

The Consultants observed that the increased energy prices for LI are consistent with recently–observed conditions. The decrease of energy revenue for capacity in the Rest of State is caused by explicitly modeling the maintenance-related startup costs of the 7FA units. The Consultants have adjusted for ancillary service net revenues for voltage support by adding $ 0.83 per kW year. For NYC and LI, the Consultants added a further $ 0.85 per KW year for 30 minute reserves.

J. Demand Curves Slope and Length

The Consultant reviewed the current shapes of the demand curves and found no basis to change the current shape and zero crossing points. They examined a curve with a relatively flatter slope from the reference point and a steeper slope closer to the zero crossing point (termed a "kinked" curve). Due to the greater possibility for withholding

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[7] Services Tariff, Sheet No. 157.

capacity when supply conditions are close to the slope change, and unknown interaction with summer/winter capacity levels, the Consultants advised against using a kinked formulation for the demand curve.

Regarding the zero crossing points on the existing curves (112% of the requirement in NYCA, 118% in NYC and LI), the Consultants concluded that these are reasonable and there is no compelling reason to change.

V. ESCALATION OF DEMAND CURVES

The Consultants' assumption of a 2.7% inflation rate over the three-year period is reasonable and consistent with macroeconomic forecasts from a variety of sources. The NYISO will use this rate in developing ICAP Demand Curves for the 2009/2010 and 2010/2011 Capability Years. Based on this assumption, the per-kW-Year reference price of ICAP shall be escalated accordingly at the onset of the summer-capability period in each of the three years.

Due to increases in equipment and construction costs, assumed capacity levels and other factors, the NYCA demand curve reference value will increase approximately forty percent over the current demand curve reference values.

VI. WINTER/SUMMER ADJUSTMENT

The NYISO ICAP Demand Curves are based on annual references values established through this independent review. The NYISO ICAP market operates in two six-month Capability Periods with different amounts of capacity available in each. The primary reason for this is that generators normally have higher output capacity in winter than summer due to lower ambient temperature conditions. Imported Installed Capacity, new generation, retirements and Special Case Resources also influence these quantities. The monthly ICAP reference point for the NYCA and each Locality is derived from the annual reference value for new entry less an estimate of annual net revenue from the sale of energy and ancillary services.

The annual reference value is a $/kW-year value based on an average generator rating. The ICAP Demand Curve reference point used in monthly ICAP Spot Market Auctions must include adjustments to take these seasonal effects into account. Each monthly demand curve reference point is set to the level that would permit a peaking unit to be paid an amount over the course of the year that is equal to the annual reference value established by this update.

The Services Tariff specifies that the translation of the annual net revenue requirement into monthly values take into account "seasonal differences in the amount of capacity available in the ICAP Spot Market Auctions." A table showing the NYISO estimate of "available" capacity over the 2008-2011 period of the ICAP Demand Curves is included in Appendix A. The ratio of available Winter to Summer capacity for each Capability

Year is used to calculate the ICAP Demand Curve reference points for each Locality and the NYCA following NYISO Procedures.

VII. ICAP DEMAND CURVES, REFERENCE VALUES, AND REFERENCE POINTS

The NYISO's proposed ICAP Demand Curves are derived from annual reference values, which are intended to reasonably represent the net annualized levelized revenue requirements that will be necessary to encourage the entry of new ICAP Resources into the New York market. These curves, in their simplest form, reflect the cost of installation, fixed operation and maintenance expenses, an offset for net revenues from the energy and ancillary services, as well as miscellaneous adjustments.

Because the ICAP Demand Curves simulate demand bids in the NYISO's monthly ICAP Spot Market Auctions, the annual Reference values must be converted into monthly terms with a reference point that allows suppliers to receive annual revenues approaching the annual reference values when the summer supply equals or just exceeds the minimum ICAP requirements established by the New York State Reliability Council ("NYSRC") and the NYISO. The curves reflect a winter to summer Dependable Maximum Net Capacity ratio based on statistics published in the annual NYISO Load and Capacity Report (the "Gold Book").

VIII. INDEPENDENT REVIEW OF DEMAND CURVE PARAMETERS

The NYISO has consulted with the independent Market Advisor, Dr. David Patton, and he concurs in the conclusions in this report. He independently monitors and evaluates the patterns of bids, offers and market outcomes in the New York capacity markets. He believes that the stability provided by the demand curves facilitates the forward contracting for both capacity and energy that is needed to support investment in new and existing generation.

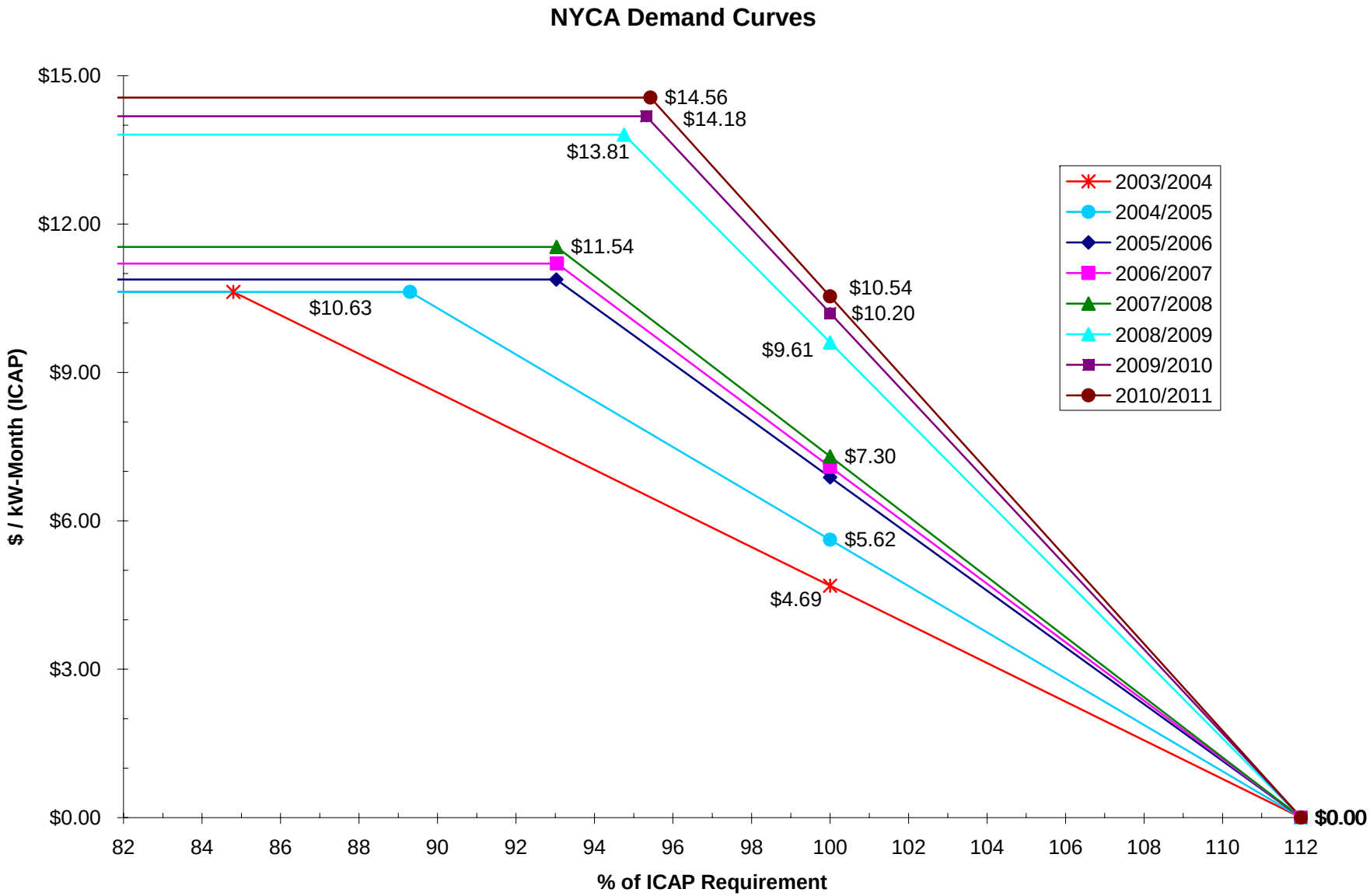
Appendix A - Demand Curve Parameters and Demand Curves

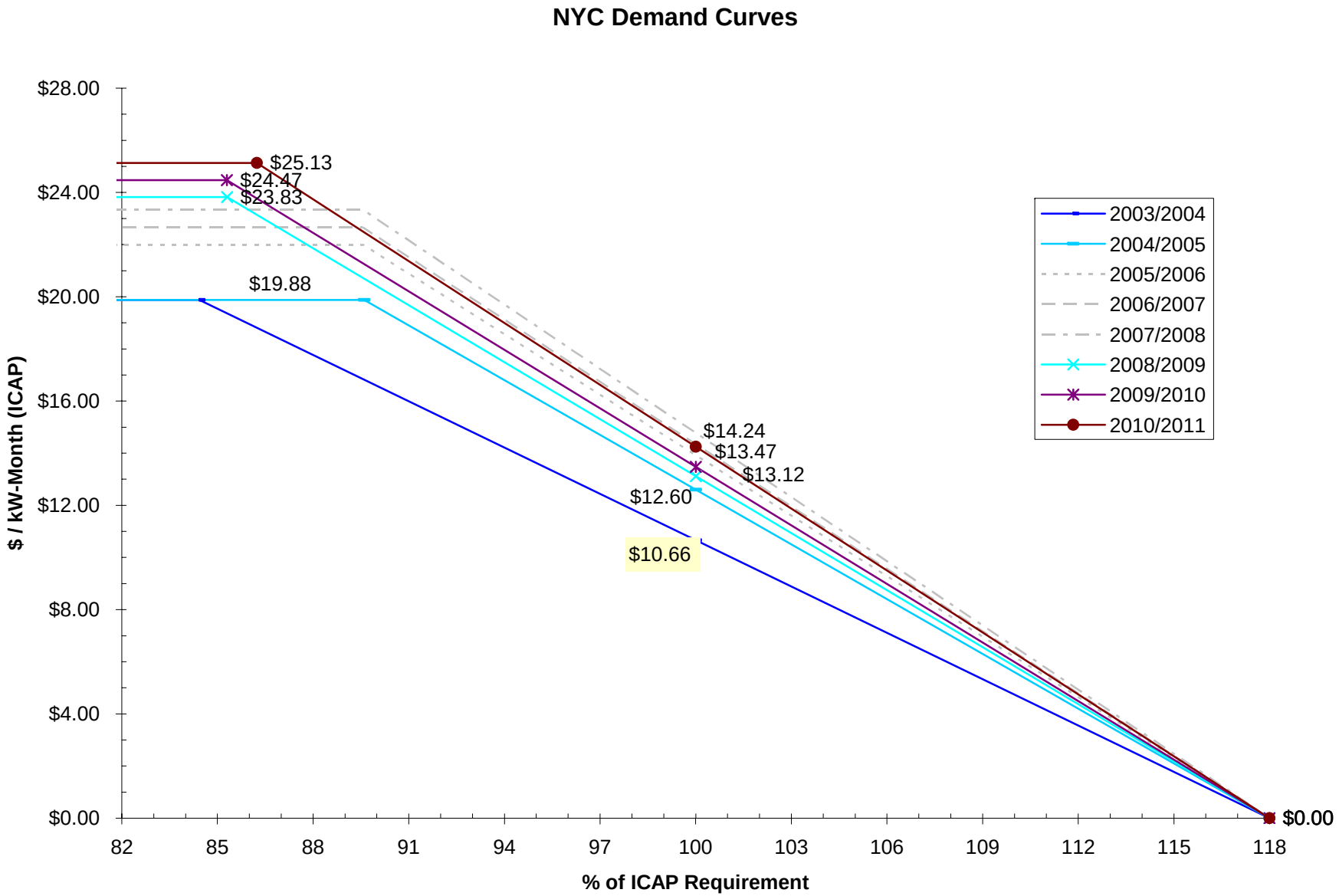
	2008/2009			NERA/NYISO Proposal
	NYCA	NYC	LI	
Annual Revenue Req. (per KW)	$110.47	$190.64	$165.93	$ / kW-Year ICAP
Net Revenue (per kW)	$7.31	$64.89	$89.98	$ / kW-Year ICAP
Annual ICAP Revenue Req. (per kW) =	$103.16	$125.75	$75.95	$ / kW-Year ICAP
Summer DMNC basis	$96.66	$119.37	$71.82	MW (@ 90°)
Winter DMNC basis	$83.79	$119.01	$71.89	MW (@ 25°)
DMNC @ Ave. Temp	300.3	188.72	188.75	MW (@ 59°)
Total Annual Revenue Req. =	$30,978,948	$23,731,540	$14,335,563	
Ratio of Winter to Summer DMNCs	1.050	1.087	1.056	Available 2008/09 adjusted from 07 GB values
Summer DMNC	320.5	198.8	199.6	MW (@ 90°)
Winter DMNC	369.7	199.4	199.4	MW (@ 25°)
Summer Reference Point =	$9.61	$13.12	$7.09	$ / kW-Month ICAP
Winter Reference Point =	$5.63	$6.76	$4.88	$ / kW-Month ICAP
Monthly Revenue (Summer) =	$3,080,005	$2,608,256	$1,415,164	
Monthly Revenue (Winter) =	$2,081,411	$1,347,944	$973,072	
Seasonal Revenue (Summer) =	$18,480,030	$15,649,536	$8,490,984	
Seasonal Revenue (Winter) =	$12,488,466	$8,087,664	$5,838,432	
Total Annual Revenue =	$30,968,496	$23,737,200	$14,329,416	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	$9.61	$13.12	$7.09	$ / kW-Month ICAP
ICAP Max. Clearing Price =	$13.81	$23.83	$20.74	$ / kW-Month ICAP
Demand Curve Length	112%	118%	118%	

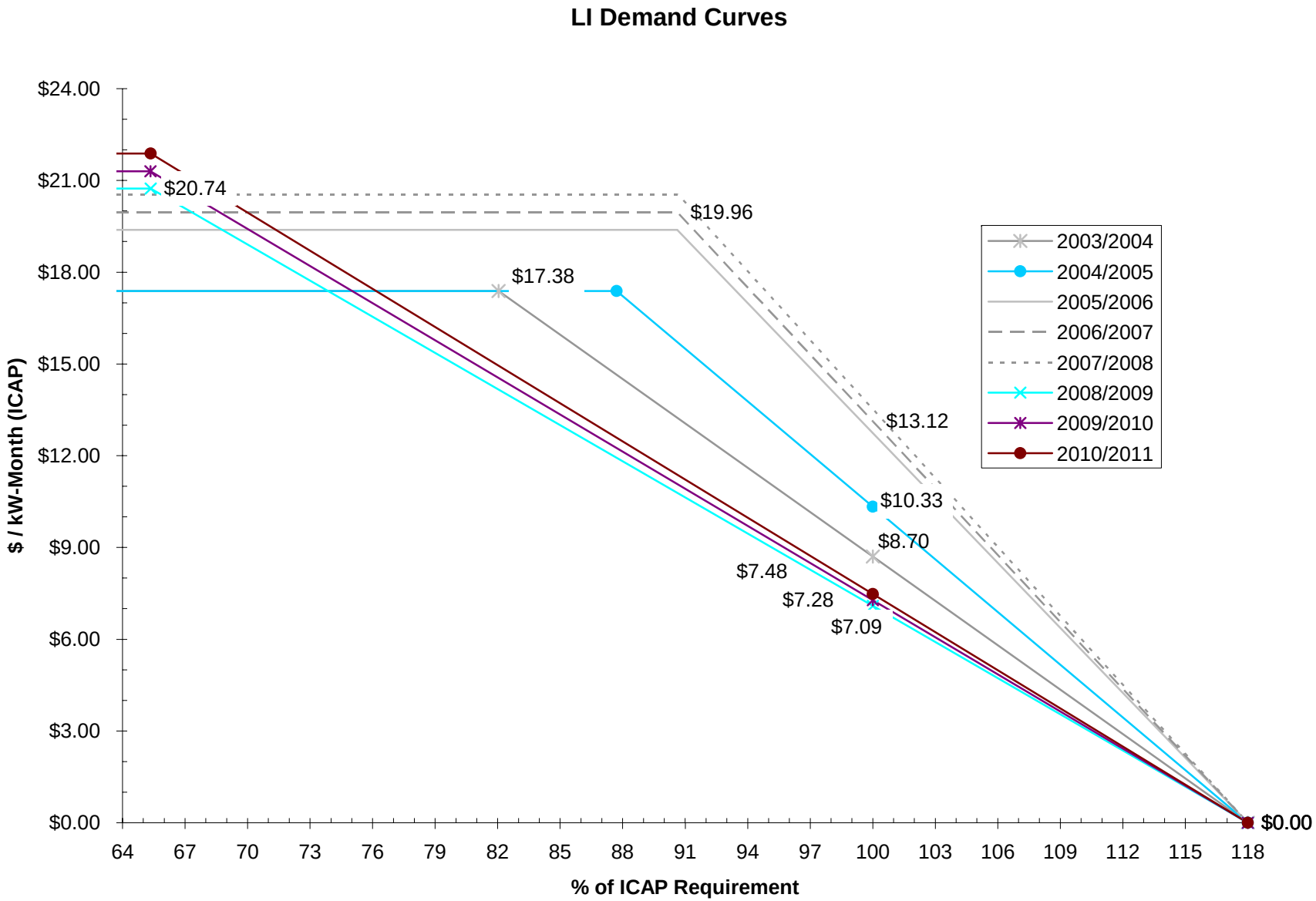
2009/2010				Escalation Factor = 2.7%
	NYCA	NYC	LI	
Annual Revenue Req. (per KW)	$113.45	$195.79	$170.41	$ / kW-Year ICAP
Net Revenue (per kW)	$7.51	$66.64	$92.41	$ / kW-Year ICAP
Annual ICAP Revenue Req. (per kW) =	$105.95	$129.15	$78.00	$ / kW-Year ICAP
Summer DMNC basis	$99.27	$122.60	$73.76	MW (@ 90°)
Winter DMNC basis	$86.06	$122.23	$73.83	MW (@ 25°)
DMNC @ Ave. Temp	300.3	188.72	188.75	MW (@ 59°)
Total Annual Revenue Req. =	$31,815,380	$24,372,292	$14,722,623	
Ratio of Winter to Summer DMNCs	1.055	1.087	1.056	Available 2009/10 adjusted from 07 GB values
Summer DMNC	320.5	198.8	199.6	MW (@ 90°)
Winter DMNC	369.7	199.4	199.4	MW (@ 25°)
Summer Reference Point =	$10.20	$13.47	$7.28	$ / kW-Month ICAP
Winter Reference Point =	$5.50	$6.94	$5.01	$ / kW-Month ICAP
Monthly Revenue (Summer) =	$3,269,100	$2,677,836	$1,453,088	
Monthly Revenue (Winter) =	$2,033,350	$1,383,836	$998,994	
Seasonal Revenue (Summer) =	$19,614,600	$16,067,016	$8,718,528	
Seasonal Revenue (Winter) =	$12,200,100	$8,303,016	$5,993,964	
Total Annual Revenue =	$31,814,700	$24,370,032	$14,712,492	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	$10.20	$13.47	$7.28	$ / kW-Month ICAP
ICAP Max. Clearing Price =	$14.18	$24.47	$21.30	$ / kW-Month ICAP
Demand Curve Length	112%	118%	118%	

2010/2011				Escalation Factor = 2.7%
	NYCA	NYC	LI	
Annual Revenue Req. (per KW)	$116.52	$201.07	$175.01	$ / kW-Year ICAP
Net Revenue (per kW)	$7.71	$68.44	$94.90	$ / kW-Year ICAP
Annual ICAP Revenue Req. (per kW) =	$108.81	$132.63	$80.11	$ / kW-Year ICAP
Summer DMNC basis	$101.95	$125.91	$75.75	MW (@ 90°)
Winter DMNC basis	$88.38	$125.53	$75.83	MW (@ 25°)
DMNC @ Ave. Temp	300.3	188.72	188.75	MW (@ 59°)
Total Annual Revenue Req. =	$32,674,395	$25,030,343	$15,120,134	
Ratio of Winter to Summer DMNCs	1.056	1.095	1.056	Available 2010/11 adjusted from 07 GB values
Summer DMNC	320.5	198.8	199.6	MW (@ 90°)
Winter DMNC	369.7	199.4	199.4	MW (@ 25°)
Summer Reference Point =	$10.54	$14.24	$7.48	$ / kW-Month ICAP
Winter Reference Point =	$5.60	$6.73	$5.15	$ / kW-Month ICAP
Monthly Revenue (Summer) =	$3,378,070	$2,830,912	$1,493,008	
Monthly Revenue (Winter) =	$2,070,320	$1,341,962	$1,026,910	
Seasonal Revenue (Summer) =	$20,268,420	$16,985,472	$8,958,048	
Seasonal Revenue (Winter) =	$12,421,920	$8,051,772	$6,161,460	
Total Annual Revenue =	$32,690,340	$25,037,244	$15,119,508	validates "Total Annual Revenue Req." is met

Demand Curve Parameters				
ICAP Monthly Reference Point =	$10.54	$14.24	$7.48	$ / kW-Month ICAP
ICAP Max. Clearing Price =	$14.56	$25.13	$21.88	$ / kW-Month ICAP
Demand Curve Length	112%	118%	118%	


NYCA Demand Curves
$15.00
$12.00
$9.00
$6.00
$3.00
$0.00
$ / kW-Month (ICAP)
82
84
86
88
90
92
94
96
98
100
102
104
106
108
110
112
% of ICAP Requirement
$14.56
$14.18
$13.81
$11.54
$10.54
$10.20
$9.61
$10.63
$7.30
$5.62
$4.69
$0.00
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011


NYC Demand Curves
$28.00
$24.00
$20.00
$16.00
$12.00
$8.00
$4.00
$0.00
$ / kW-Month (ICAP)
82
85
88
91
94
97
100
103
106
109
112
115
118
% of ICAP Requirement
$25.13
$24.47
$23.83
$19.88
$14.24
$13.47
$13.12
$12.60
$10.66
$0.00
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011


LI Demand Curves
$24.00
$21.00
$18.00
$15.00
$12.00
$9.00
$6.00
$3.00
$0.00
$ / kW-Month (ICAP)
64
67
70
73
76
79
82
85
88
91
94
97
100
103
106
109
112
115
118
% of ICAP Requirement
$20.74
$19.96
$17.38
$13.12
$10.33
$8.70
$7.48
$7.28
$7.09
$0.00
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011

Appendix B – Timeline

New York Independent System Operator, Inc.
Final Timeline for Fall 2007
Determination of New ICAP Demand Curves
For 2008 through 2010 Capability Years

The NYISO anticipates following the timeline set forth below for completing the balance of the Periodic Independent Review of the ICAP Demand Curves, as provided for in Section 5.6 of the ICAP Manual. Stakeholder and NYPSC review and input has been provided through the several ICAP Working Group meetings that have taken place since the August 3, 2007 release of the NERA/S&L Report.

All submissions of Initial and Responsive Supplemental Information will be posted on the ICAP Working Group page of the NYISO website. All submission deadlines should be considered as of "close of business," and should be provided to the NYISO electronically.

- Friday, August 31, 2007 – NYISO issues proposed ICAP Demand Curves, initiating thirty-day period for stakeholder submissions of Supplemental Information (limited to ten pages) and/or requests for oral argument before ISO Board subcommittee

- Monday, October 1 - Deadline for submitting Responsive Supplemental Information to initial stakeholder Supplemental Information submittals and close of thirty-day comment period (ICAP Manual, section 5.6)

- October 15 – ISO Board's Market Performance subcommittee considers Supplemental Information and hears oral arguments, if requested. Total time for oral argument shall be limited to no more than 90 minutes

- November 13 – at its regular November meeting, ISO Board acts on the new ICAP Demand Curves

- By November 30, 2007 – NYISO submits ISO Board-issued ICAP Demand Curves to FERC

- By February 1, 2008 – Anticipated FERC action on filing