Attachment IV

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc. **Docket No. ER11-2224-004**

REVISED AFFIDAVIT OF DAVID LAWRENCE

Mr. David Lawrence declares:

1. I have personal knowledge of the facts and opinions herein and if called to testify could and would testify competently hereto.

I. Purpose of this Affidavit

2. The purpose of this Affidavit is to present the percentage impact of each of the changes to the components of the ICAP1 Demand Curve for each of New York City ("NYC"), Long Island, and the New York Control Area ("NYCA") that the NYISO has proposed in its compliance filing.

II. Qualifications

3. My name is David Lawrence, and I am the Manager of Auxiliary Market Products for the New York Independent System Operator, Inc. ("NYISO"). In this position I am responsible for the design and implementation of, and enhancements to, the Installed Capacity product in the NYISO market, including the development of the ICAP Demand Curves and Capacity market mitigation measures, and for working with stakeholders on such matters. Prior to my

[1] Terms with initial capitalization not defined herein or in the compliance filing transmittal letter to which this Affidavit is made part of, have the meaning set forth in the NYISO's Market Administration and Control Area Services Tariff, and if not defined therein, then as defined in the NYISO's Open Access Transmission Tariff.

current position, I was employed for 24 years by Power Technologies, Inc., where, among other positions, I served as the Director of the Instrumentation and Energy Management Department. I received a Bachelor of Science degree in Engineering and a Master of Science degree in Electric Power Engineering from Rensselaer Polytechnic Institute in Troy, New York.

III. Background

4. The Commission's "January Order"[2] requires that the NYISO, among other things:

- Include a calculation of System Deliverability Upgrades ("SDUs"), if any, in the determination of CONE, based on a "deliverability analysis that reflects a level of capacity that slightly exceeds the minimum capacity requirements."[3]
- Address the Independent Power Producers of New York, Inc.'s arguments on System Upgrade Facility ("SUF") costs in NYC and provide support for the NYISO's estimate of NYC SUF costs.[4]
- Either use the level of excess Capacity in the current ICAP Demand Curves, or, "use another level of excess that equals or exceeds the minimum requirement."[5]
- Use the level of excess consistently throughout the analysis used to develop the ICAP Demand Curves.[6]
- Revise the NYC Demand Curve to exclude real property tax abatement from the calculation of net CONE.[7]

IV. Methodology of Impact Analysis

5. In determining the percentage impact of required changes to the Demand Curves, which are included in the compliance filing, I performed single sensitivity analyses. In all cases, the

[2] *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,058 (2011) ("January Order").

[3] January Order at P 62.

[4] *Id.* at P 140.

[5] *Id.* at P 129.

[6] *Id.* at P 129.

[7] *Id.* at P 90.

base conditions are those defined by the Commission's "January Order" and reflected in the NYISO's compliance filing. Individual sensitivity analyses were performed by adjusting the relevant parameter in the base condition in the compliance filing. For example, the percentage impact of including property taxes in the NYC Demand Curve was determined by comparing the ~~UCAP Offer R~~reference ~~Level~~point[8] ("Reference Point") based on the January Order with the ~~UCAP Offer~~ Reference Point~~Level~~ determined by removing the property tax component.

V. Determining the Impact of System Deliverability Upgrade Costs on the ICAP Demand Curves

6. The affidavit of Mr. Steven Corey9 describes the Deliverability Test the NYISO conducted in compliance with the January Order. The Deliverability Test applied the levels of excess ("Excess Capacity Levels") the NYISO proposes in the compliance filing, which are supported by its independent Market Monitoring Unit. The Deliverability Test found that the peaking plants for each of the ICAP Demand Curves were deliverable in the respective capacity regions. Because the Deliverability Test indicates that none of the peaking plants used to establish the ICAP Demand Curves would incur SDUs, there are no costs to be added to any of respective CONEs.

VI. Impact of NYC System Upgrade Facility Cost Adjustments on the NYC Demand Curve

[8] The reference point is the price on the ICAP Demand Curve at the minimum Installed Capacity requirement. It is the price stated at 100% in the table in Services Tariff § 5.14.1.2.

[9] Corey Affidavit at P 26

7. Based on analysis and updated estimate delineated in the Affidavit of Mr. Christopher Ungate,[10] the NYISO proposes to revise the SUF costs for the NYC peaking plant. NYC SUF costs are now calculated to be $14,479,000, which translates into a new CONE of $1915/kW. The revised SUF cost is included in the NYC peaking plant CONE that is proposed in the compliance filing.

8. The revised SUF costs for NYC are $11,399,000 more than the SUF costs included in the November Filing. The result of this revision is an increase in the NYC net CONE and corresponding ~~UCAP Offer~~ Reference ~~Price~~Point of approximately 5.1%.

VII. Inclusion of Property Taxes in the NYC Demand Curve

9. The January Order directed the NYISO to exclude tax abatement from the calculation of net CONE for NYC. [11] The NERA/S&L Report[12] identified the effective property tax rate (4.69%) applicable to the NYC peaking plant. The NERA "Revised Model" (as defined and described in the Meehan Affidavit) includes the impact on the net CONE of the NYC peaking plant of these property taxes.

10. The NYC Demand Curve included in the compliance filing reflects the addition of property taxes. Consistent with the findings reported in the NYISO Demand Curve Report,[13] inclusion of property taxes results in a 41% increase in the NYC Demand Curve.

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[10] Ungate Affidavit at P 25.

[11] January Order at P 90.

[12] Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator, November Filing, Attachment 2 (Meehan Affidavit) Exhibit B at 30.

[13] Proposed NYISO Installed Capacity Demand Curves For Capability Years 2011/2012, 2012/2013 and 2013/2014, 10/30/2010; November Filing Attachment 3 (Lawrence Affidavit) Exhibit DJL-1 at Table 1, p.12.

VIII. Impact of Excess Capacity Levels on the ICAP Demand Curves

11. As set forth in the transmittal letter for the NYISO's compliance filing, and in the Patton Affidavit, the NYISO is proposing that the ICAP Demand Curves be established using an Excess Capacity Level equal to the MW of the peaking plant (413 MW for a 2-unit Frame 7FA for the NYCA, 195 MW for a 2-unit LMS100 for NYC and Long Island).[14] Stated as a percentage, the proposed Excess Capacity Levels are 2.3% (NYC), 4.1% (Long Island), and 1.1% (NYCA).

12. For the NYC Demand Curve, a 102.3% Excess Capacity Level results in a net CONE of $278.90/kW-yr., which is a 14.6% increase over the net CONE based upon the 101.1% level of excess in the November Filing.

13. For the NYCA Demand Curve, a 101.1% Excess Capacity Level results in a net CONE of $93.68/kW-yr., which is a 1.5% increase over the net CONE based upon the 101% level of excess in the November Filing.

14. For the Long Island Demand Curve, a 104.1% Excess Capacity Level results in a net CONE of $103.36/kW-yr., which is a 44.7% increase over the net CONE based upon the 102.1% level of excess in the November Filing.

15. The above figures include the impact of using a consistent level of excess capacity for all of the years of the study period, as described in Section IX below.

IX. Consistent Use of Excess Capacity Levels for all Study Years

[14] NERA/S&L Report, November Filing, Meehan Affidavit Exhibit B, Table II-1, p. 18.

16. As described in the transmittal letter, in compliance with the January Order, the NYISO proposes to calculate the ICAP Demand Curves using a consistent Excess Capacity Level assumption for the entire study. This is a change from the November Filing's proposal, which assumed a level of excess capacity of 100.5% for years 1 through 3 of the study period. The years 1 through 3 level of excess, was utilized to compute the Energy and Ancillary Services revenue estimates approved in the January Order. [15] The NERA "Original Model" (as defined and described in the Meehan Affidavit) that was used for the November Filing has the ability to represent varying levels of excess capacity in years 1 through 3 for purposes of determining Energy revenues, but does not have the capability to determine the impact of varying Excess Capacity Levels on Capacity revenues for all years of the study period (*i.e.*, years 1 through 30).

17. The ability to model the impact of consistent Excess Capacity Levels on Capacity revenue for all years has been included within the NERA Revised Model used to calculate the ICAP Demand Curves, and is reflected in the revised ICAP Demand Curves described in and included with this Affidavit. The impact of assuming an Excess Capacity Level equal to the MW of the peaking plant, and other corresponding revisions to the Revised Model as described in the Meehan Affidavit,[16] compared with using the 100.5% level of excess used for Years 1 through 3 in the NERA Original Model, are:

- For NYC, the Demand Curve ~~UCAP Offer~~ Reference Point~~Level~~ increases by 5.5% (4.7% due to changes in the NERA model to calculate Capacity revenue (based on revenue changes proposed in this compliance filing), the remainder due to increased Energy revenue in years 1 through 3 at the 102.3% Excess Capacity Level).

- For NYCA, the Demand Curve ~~UCAP Offer~~ Reference ~~Level~~Point increases by 3.2% (2.9% due to changes in the NERA model to calculate Capacity revenue (based on

[15] January Order at P 136.

[16] Meehan Affidavit at PP 6 – 8.

revenue changes proposed in this compliance filing), the remainder due to increased Energy revenue in years 1 through 3 at the 101.1% Excess Capacity Level).

- For Long Island, the Demand Curve ~~UCAP Offer~~ Reference Point~~Level~~ increases by 15.6% (8.2% due to changes in the NERA model to calculate Capacity revenue (based on revenue changes proposed in this compliance filing), the remainder due to increased Energy revenue in years 1 through 3 at the 104.1% Excess Capacity Level).

X. Revised ICAP Demand Curves

18. Attachment 1 to this Affidavit contains:

- A summary of the annual and monthly ICAP Demand Curve parameters for each of the proposed ICAP Demand Curves for the three years covered by the current ICAP Demand Curve reset period; and

- Plots of each of the ICAP Demand Curves on an ICAP basis from Capability Years 2003/2004 through 2013/2014.

19. The revised ICAP Demand Curves result in the ICAP Demand Curve rates set forth in Attachment 1 to the compliance filing, which includes the table in proposed revised section 5.14.1.2 of the Services Tariff. That table identifies the zero crossing points at which the NYISO's three ICAP Demand Curves are to be established, as approved by the Commission in the January Order.[17]

This concludes my Affidavit.

[17] January Order at P 156.

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

_____
David J. Lawrence

Subscribed and sworn to before me
this ~~29th~~ 1st day of ~~March~~ April 2011

_____
Notary Public

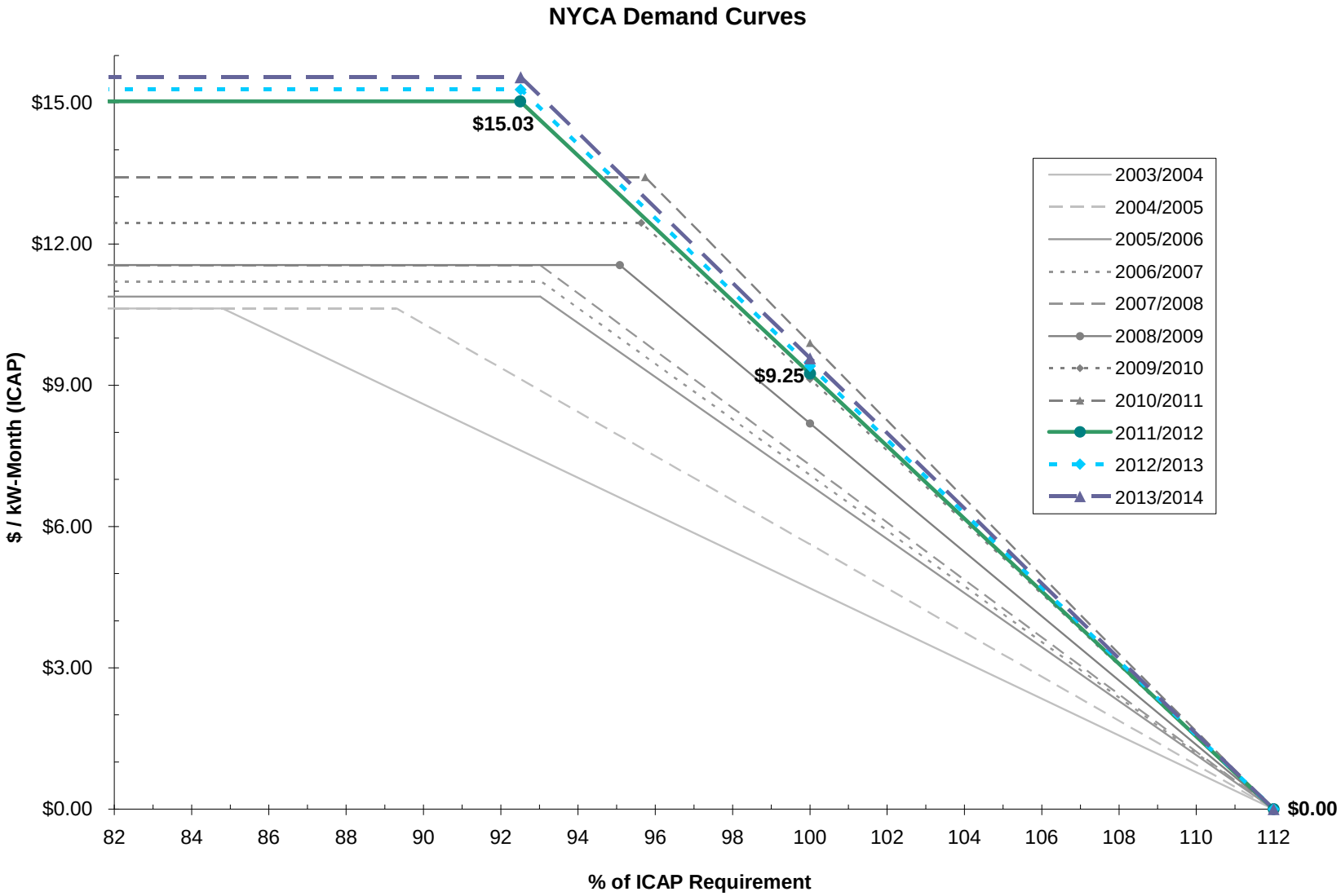
My commission expires: _____

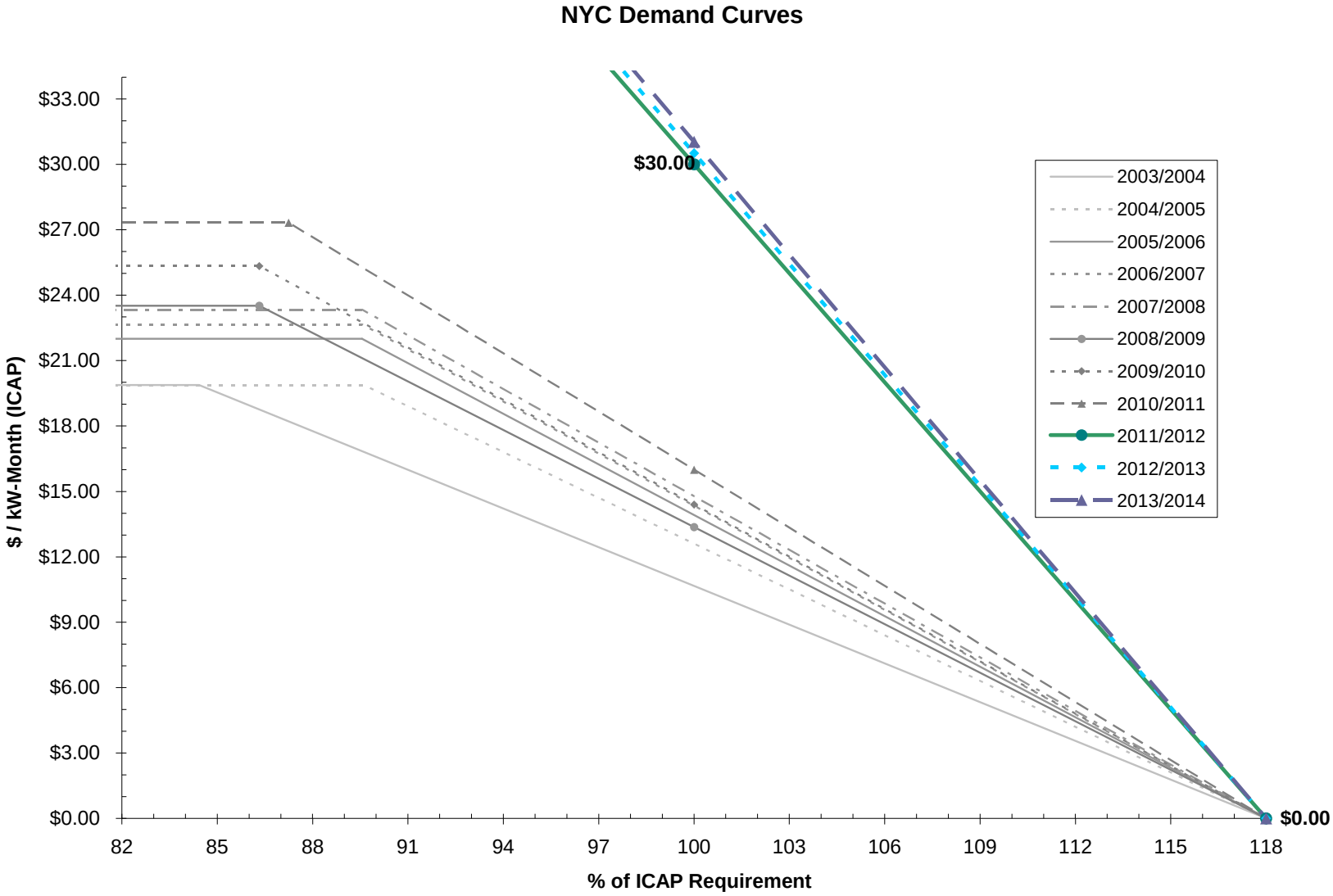
Attachment 1 – Demand Curve Parameters and Demand Curves

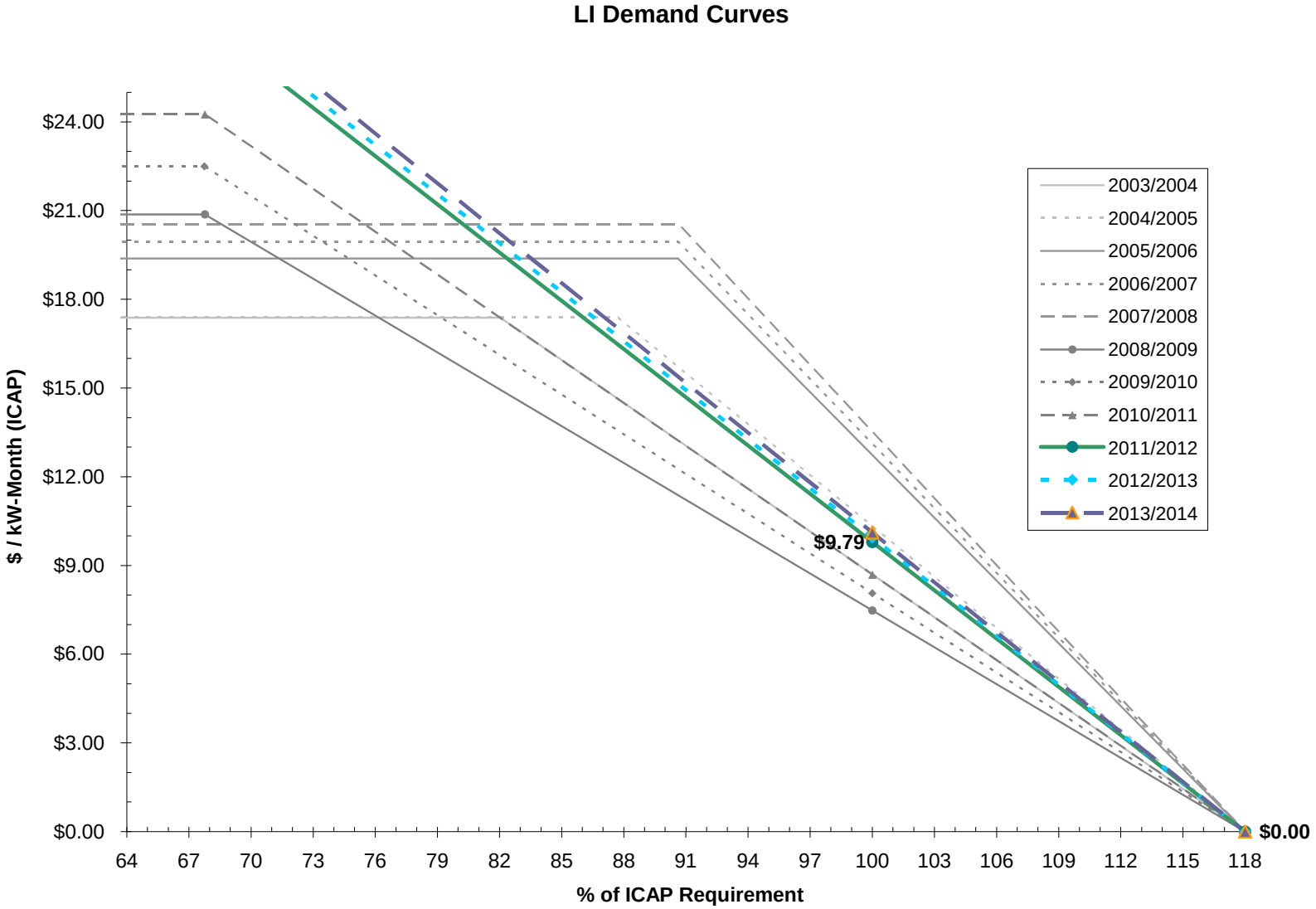
	2011/2012			NYISO Compliance Filing
	NYCA	**NYC**	**LI**	
Annual Revenue Req. (per KW)	$120.23	$372.94	$250.15	$/kW-Year (ICAP basis) - (LMS-100 updated)
Net Revenue (per kW)	$26.55	$94.04	$146.79	$/kW-Year (ICAP basis)
Annual ICAP Revenue Req. (per kW) =	$93.68	$278.90	$103.36	$/kW-Year (ICAP basis)
DMNC @ 90°	378.4	180.5	183.3	MW (@ 90°)
Total Annual Revenue Req. =	$35,447,388	$50,341,450	$18,943,821	
Ratio of Winter to Summer DMNCs	1.052	1.098	1.062	Adjusted from 2010 GB values
Summer DMNC	391.4	190.4	194.2	MW (@ 90°)
Winter DMNC	436.7	196.0	196.0	MW (@ Capital - 15.3°, NYC/LI - 28°)
Summer Reference Point =	$9.25	$30.00	$9.79	$/kW-Month (ICAP basis)
Winter Reference Point =	$5.24	$13.67	$6.42	$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	$3,620,191	$5,712,000	$1,900,826	
Monthly Revenue (Winter) =	$2,288,067	$2,679,593	$1,258,448	
Seasonal Revenue (Summer) =	$21,721,146	$34,272,000	$11,404,958	
Seasonal Revenue (Winter) =	$13,728,402	$16,077,560	$7,550,690	
Total Annual Revenue =	$35,449,548	$50,349,560	$18,955,649	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	$9.25	$30.00	$9.79	$/kW-Month (ICAP basis)
ICAP Max. Clearing Price =	$15.03	$46.62	$31.27	$/kW-Month (ICAP basis)
Demand Curve Length	112%	118%	118%	

	2012/2013			Escalation Factor = 1.7%
	NYCA	**NYC**	**LI**	
Annual Revenue Req. (per KW)	$122.27	$379.28	$254.40	$/kW-Year (ICAP basis) - (LMS-100 updated)
Net Revenue (per kW)	$27.00	$95.64	$149.29	$/kW-Year (ICAP basis)
Annual ICAP Revenue Req. (per kW) =	$95.27	$283.64	$105.12	$/kW-Year (ICAP basis)
DMNC @ 90°	378.4	180.5	183.3	MW (@ 90°)
Total Annual Revenue Req. =	$36,049,993	$51,197,255	$19,265,866	
Ratio of Winter to Summer DMNCs	1.052	1.098	1.062	Adjusted from 2010 GB values
Summer DMNC	391.4	190.4	194.2	MW (@ 90°)
Winter DMNC	436.7	196.0	196.0	MW (@ Capital - 15.3°, NYC/LI - 28°)
Summer Reference Point =	$9.41	$30.51	$9.95	$/kW-Month (ICAP basis)
Winter Reference Point =	$5.33	$13.90	$6.52	$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	$3,682,811	$5,809,104	$1,931,892	
Monthly Revenue (Winter) =	$2,327,366	$2,724,678	$1,278,050	
Seasonal Revenue (Summer) =	$22,096,863	$34,854,624	$11,591,352	
Seasonal Revenue (Winter) =	$13,964,195	$16,348,068	$7,668,302	
Total Annual Revenue =	$36,061,058	$51,202,692	$19,259,654	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	$9.41	$30.51	$9.95	$/kW-Month (ICAP basis)
ICAP Max. Clearing Price =	$15.28	$47.41	$31.80	$/kW-Month (ICAP basis)
Demand Curve Length	112%	118%	118%	

2013/2014				Escalation Factor = 1.7%
	NYCA	**NYC**	**LI**	
Annual Revenue Req. (per KW)	$124.35	$385.73	$258.73	$/kW-Year (ICAP basis) - (LMS-100 updated)
Net Revenue (per kW)	$27.46	$97.26	$151.82	$/kW-Year (ICAP basis)
Annual ICAP Revenue Req. (per kW) =	$96.89	$288.46	$106.90	$/kW-Year (ICAP basis)
DMNC @ 90°	378.4	180.5	183.3	MW (@ 90°)
Total Annual Revenue Req. =	$36,662,843	$52,067,608	$19,593,385	
Ratio of Winter to Summer DMNCs	1.052	1.098	1.062	Adjusted from 2010 GB values
Summer DMNC	391.4	190.4	194.2	MW (@ 90°)
Winter DMNC	436.7	196.0	196.0	MW (@ Capital - 15.3°, NYC/LI - 28°)
Summer Reference Point =	$9.57	$31.03	$10.12	$/kW-Month (ICAP basis)
Winter Reference Point =	$5.42	$14.14	$6.63	$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	$3,745,430	$5,908,112	$1,964,899	
Monthly Revenue (Winter) =	$2,366,665	$2,771,723	$1,299,613	
Seasonal Revenue (Summer) =	$22,472,580	$35,448,672	$11,789,395	
Seasonal Revenue (Winter) =	$14,199,988	$16,630,337	$7,797,676	
Total Annual Revenue =	$36,672,568	$52,079,009	$19,587,071	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	$9.57	$31.03	$10.12	$/kW-Month (ICAP basis)
ICAP Max. Clearing Price =	$15.54	$48.22	$32.34	$/kW-Month (ICAP basis)
Demand Curve Length	112%	118%	118%	


NYCA Demand Curves
$15.00
$12.00
$9.00
$6.00
$3.00
$0.00
$ / kW-Month (ICAP)
$15.03
$9.25
$0.00
82
84
86
88
90
92
94
96
98
100
102
104
106
108
110
112
% of ICAP Requirement
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014


NYC Demand Curves
$33.00
$30.00
$27.00
$24.00
$21.00
$18.00
$15.00
$12.00
$9.00
$6.00
$3.00
$0.00
$ / kW-Month (ICAP)
$30.00
$0.00
82
85
88
91
94
97
100
103
106
109
112
115
118
% of ICAP Requirement
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014


LI Demand Curves
$ / kW-Month (ICAP)
$24.00
$21.00
$18.00
$15.00
$12.00
$9.00
$6.00
$3.00
$0.00
64
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97
100
103
106
109
112
115
118
% of ICAP Requirement
$9.79
$0.00
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014