Attachment III

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket No. ER11-2224-00_

AFFIDAVIT OF DAVID LAWRENCE

Mr. David Lawrence declares:

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

 The purpose of this Affidavit is to address two directives from the Commission's "May Order"¹ by (i) presenting the New York City ("NYC") Demand Curve² that results from inclusion of property tax abatement and (ii) demonstrating that the NYISO's computation of winter-to-summer capacity ratios ("WSRs") based on recent observed ratios at actual levels of excess is a reasonable approximation of the WSRs that would arise under the assumed average level of excess capacity. r³

¹ New York Independent System Operator, Inc., 135 FERC ¶ 61,170 (2011) ("May Order") at P 43.

² Terms with initial capitalization that are not otherwise defined herein shall have the meaning set forth in the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"), and if not defined therein, in the NYISO's Open Access Transmission Tariff ("OATT").

³ May Order at P 100.

II. Qualifications

2. 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 Installed Capacity ("ICAP") Demand Curves and Capacity market mitigation measures, and for working with stakeholders on such matters. Prior to my 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

- On May 19, 2011, the Commission issued the May Order regarding the NYISO's proposed revisions to the ICAP Demand Curves for Capability Years 2011/2012, 2012/2013, and 2013/2014. My Affidavit addresses two specific determinations within the May Order:
 - The Commission's directive on rehearing that the NYISO include property tax abatement provided under New York State Law⁴ in the calculation of the NYC net Cost of New Entry ("CONE").⁵

 $^{^4\,}$ 2011 N.Y. Laws Chapter 28 (May 18, 2011) (enacting N.Y.S. Assem. Bill 7511) ("2011 Tax Abatement"),

⁵ See May Order at P 43.

• The Commission's clarification of its January 28, 2011 Order in this proceeding⁶ with respect to the relationship between the NYISO's filed calculations of WSR capacity ratios and the assumed levels of excess capacity used in other aspects of the ICAP Demand Curve reset process.⁷

IV. Inclusion of Property Tax Abatement in the NYC Demand Curves

- 4. At the request of the NYISO, the NYISO's consultants for the ICAP Demand Curve reset process, NERA Economic Consulting ("NERA") and Sargent & Lundy revised the levelized fixed charge rates for the NYC Demand Curve peaking plant to reflect 15 years of 100% property tax abatement. The revised fixed charge rates were incorporated into the Demand Curve model for NYC developed by NERA.⁸
- 5. The NYISO notified stakeholders on June 8, 2011 that the model had been revised as described above, and that the revised model was available on the NYISO website.⁹
- 6. Inclusion of the 2011 Tax Abatement adjusts the 2011/2012 reference price for the NYC Demand Curve from \$30.00/kW-month Summer Capability Period (278.90/kW-yr) to \$20.04/kW-month Summer Capability Period186.28/kW-yr). Attachment 1 to this Affidavit contains tables summarizing the annual and monthly ICAP Demand Curve parameters for

⁶ New York Independent System Operator, Inc., 134 FERC ¶ 61,058 (2011) ("January Order")

⁷ See May Order at PP 99-100.

⁸ The model that was revised for purposes of this compliance filing was NERA's "Revised Model" as described in the Affidavit of Eugene T. Meehan filed with the NYISO's March 29, 2011 Compliance Filing; New York Independent System Operator, Inc., Compliance Filing and Request for Flexible Effective and Implementation Dates, Docket Nos. ER11-2224-004 and ER11-2224-005 (such compliance filing, "March 29 Compliance Filing") at Meehan Affidavit.

⁹ The revised NYC model is available at

<http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp> under "Reference Documents - 2011-2014 Demand Curve Reset">

each of the three Demand Curves for the three-year period associated with the NYISO's November 30, 2010 filing in this docket.¹⁰ The attachment also provides the plots of the Demand Curves on an ICAP basis for the period 2003/2004 through 2013/2014.

V. WSR Capacity Ratios and Their Relationship to Assumed Levels of Capacity Excess

- 7. In the May Order, the Commission stated that "[w]hile NYISO states that the level of excess capacity is not a factor in the winter/summer adjustment," it was "not convinced by NYISO's explanation that it should not be considered."¹¹ The Commission directed the "NYISO to include, in its compliance filing, values for WSRs in the relevant locations that are consistent with the assumed average levels of excess capacity used to calculate the other components of net CONE, or to explain why the values for WSR calculated based on recent actual data reasonably approximate the ratio of winter-to-summer DMNCs that would arise under the assumed average level of excess capacity."¹² The Commission defined "WSR" as "the ratio of (i) the sum of the winter Dependable Maximum Net Capabilities ("DMNCs") of all ICAP providers, to (ii) the sum of the summer DMNCs of all ICAP providers."¹³
- 8. The methodology the NYISO used to determine the winter/summer ratios in its November Filing was based upon observed winter/summer ratios at actual levels of excess, and utilized the following information in the NYISO's 2010 NYISO Load and Capacity Data report

¹³ May Order at P 99.

¹⁰ Docket ER11-2224-000, New York Independent System Operator, Inc., Tariff Revisions to Implement Revised ICAP Demand Curves for Capability Years 2011/2012, 2012/2013 and 2013/2014 (November 30, 2010) ("November Filing").

¹¹ May Order at P 98.

¹² May Order at P 100.

("Gold Book"),¹⁴ published in April 2010, with the addition of forecast new entry, as defined in that version of the Gold Book:

- Existing generator CRIS¹⁵-adjusted DMNCs
- Expected CRIS-adjusted DMNCs of projected capacity additions / retirements
- Expected CRIS-adjusted DMNCs of projects undergoing reratings
- Special Case Resource ("SCR") capacity
- ICAP Net purchases and sales

9. To compute winter/summer ratios based upon the assumed levels of excess capacity used to calculate other components of net CONE would require identifying changes to the current population of Installed Capacity, to each category of Installed Capacity, and for each region, in order for the total adjusted excess to equal the assumed level of excess in each region. When performing the deliverability test to determine whether System Deliverability Upgrades ("SDUs") were needed as part of its March 29, 2011 compliance filing in this proceeding ("DCR Deliverability Test"), the NYISO adjusted the actual level of capacity to the proposed level of excess capacity by adjusting various parameters, as was explained in the Affidavit of Steven L. Corey. ¹⁶ The DCR Deliverability Test was only conducted to comply with the January Order and was the only aspect of the ICAP Demand Curve reset analysis that looked at and adjusted specific supply resources to balance load and supply. It represented only peak load (*i.e.*, Summer Capability Period) conditions although the mixture

¹⁴ The 2010 Gold Book is available at

¹⁵ Capacity Resource Interconnection Service.

¹⁶ New York Independent System Operator, Inc., Compliance Filing and Request for Flexible Effective and Implementation Dates, Docket Nos. ER11-2224-004 and ER11-2224-005 (collectively, "March 29 Compliance Filing"), Steven L. Corey Affidavit ("Corey Affidavit") at PP 15-25.

of capacity resources modeled in it can be considered for both Summer and Winter Capability Periods in order to compute a WSR. In setting up the capacity model used in the DCR Deliverability Test, specific assumptions¹⁷ consistent with both the deliverability test that is conducted pursuant to OATT Attachment S¹⁸ and the level of excess assumed for the ICAP Demand Curves were needed in the following areas:

- Existing capacity
- Assumed new projects in service / retirements
- Levels of imports
- SCRs
- Demand curve peaking plant

10. As noted in the Corey Affidavit,¹⁹ the existing capacity assumption for the DCR Deliverability Test used the same Annual Transmission Baseline Assessment ("ATBA") as the Class Year 2009 and 2010 analyses. SCRs are not modeled in the ATBA. Additional projects from Class Year 2009 and 2010 were added to the DCR Deliverability Test base case, specifically Bayonne Energy Center LLC and the Long Island Solar Farm, LLC.²⁰ Capacity was then scaled down on a pro rata basis to match the minimum Installed Capacity requirement for each capacity region.²¹ External capacity associated with Quebec via

Chateauguay (1090 MW) and PJM (1080 MW), reflecting NYSEG's Existing Transmission

- ¹⁸ See OATT Attachment S §25.7.8.2.
- ¹⁹ Cite Corey Affidavit, P. 8.
- ²⁰ See Corey Affidavit at P 9.
- ²¹ See Corey Affidavit at P 15.

¹⁷ Corey Affidavit at P. 7.

for Native Load, were not scaled down.²² The MW of the Demand Curve peaking plant were included at a specific location in each capacity region, as described in the Corey Affidavit.²³

11. Table 1 below lists the Summer and Winter capacity consistent with the DCR Deliverability Test assumptions delineated above. The resulting MW levels of excess identified in the row labeled "Total (MW), Summer" are very similar to corresponding values found in Table A of the Corey Affidavit²⁴ in the row labeled "DCR Study Case – ICAP at proposed level of excess." The differences in MW values are attributable to the actual Summer and Winter ratings of the peaking plant for each of the Demand Curves compared with the nominal values used in the Corey Affidavit. Table 2 compares the resulting WSR using the capacity as modeled in the DCR Deliverability Test with the WSR values filed by the NYISO in the November Filing.

²² See Corey Affidavit at P 17.

²³ See Corey Affidavit PP18-19.

²⁴ See Corey Affidavit at Table A.

Item	NYC	LI	NYCA
Unscaled Internal	10,418	5,502	39,411
ICAP (MW), summer			
Unscaled Internal	11,460	5,955	42,263
ICAP (MW), winter			
Scaled Internal ICAP	8,813	4,508	35,803
(MW), summer			
Scaled Internal ICAP	9,694	4,879	38,394
(MW), winter			
Imports (MW),	960	990	3,881
summer			
Imports (MW),	960	990	3,030
winter			
Peaking plant (MW),	190	194	391
summer			
Peaking plant (MW),	196	196	437
winter			
Total MW, summer	9,963	5,692	40,075
Total MW, winter	10,850	6,065	41,861
Winter-to-summer	1.089	1.066	1.045
ratio			

Table 1 – Summer and Winter Installed Capacity Corresponding to DCR Deliverability Test Assumptions

Table 2 – Comparison of WSRs

	WSR – DCR Deliverability Study Assumptions	WSR – NYISO 11/30 Filing	% Difference
NYCA	1.045	1.045	+0.0%
NYC	1.089	1.099	-10.1%
LI	1.066	1.062	+6.5%

12. As can be seen from Table 2, the differences in WSRs between the NYISO November Filing and those derived from the capacity assumptions underlying the DCR Deliverability Test are either zero or small (0.0% in NYCA, -10.1% in NYC, and +6.5% in Long Island). The

analysis confirms that the WSRs proposed by the NYISO in its November Filing are reasonable and consistent with the levels of excess modeled in other aspects of the Demand Curve reset analysis set forth in the March 29 Compliance Filing. Furthermore, the NYISO believes the WSRs proposed in the November filing are superior to those based upon the DCR Deliverability Test, for several reasons. The DCR Deliverability Test assumptions are strictly based on the requirements of the loadflow-based analysis that models a peak hour load Summer condition, and do not consider winter conditions, nor do they consider the presence of Special Case Resources. Given the scope and assumptions of the DCR Deliverability Test, direct use of the WSRs derived from capacity modeled in the DCR Deliverability Test would not be appropriate in the ICAP Demand Curve reset process. This concludes my Affidavit.

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 20th day of June 2011

1

Notary Public

8/8/2012 My commission expires:

GLORIA KAVANAH Notary Public, State of New York No. 4941412 Qualified in Schenectady County Commission Expires 8/8/8

		2011/2012		NERA/NYISO Proposal
	NYCA	NYC	LI	
Annual Revenue Req. (per KW)	\$120.23	\$280.32	\$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	\$186.28	\$103.36	\$/kW-Year (ICAP basis)
	070.4	100 5	400.0	
	378.4	180.5	183.3	MVV (@ 90°)
I otal Annual Revenue Req. =	\$35,447,388	\$33,623,540	\$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	\$20.04	\$9.79	\$/kW-Month (ICAP basis)
Winter Reference Point =	\$5.24	\$9.13	\$6.42	\$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	\$3,620,191	\$3,815,616	\$1,900,826	
Monthly Revenue (Winter) =	\$2,288,067	\$1,789,663	\$1,258,448	
Seasonal Revenue (Summer) =	\$21,721,146	\$22,893,696	\$11,404,958	
Seasonal Revenue (Winter) =	\$13,728,402	\$10,737,976	\$7,550,690	
Total Annual Revenue =	\$35,449,548	\$33,631,672	\$18,955,649	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	\$9.25	\$20.04	\$9.79	\$/kW-Month (ICAP basis)
ICAP Max. Clearing Price =	\$15.03	\$35.04	\$31.27	\$/kW-Month (ICAP basis)
Demand Curve Length	112%	118%	118%	

Attachment 1 – Demand Curve Parameters and Demand Curves

		2012/2013		Escalation Factor = 1.7%
	NYCA	NYC	LI	
Annual Revenue Req. (per KW)	\$122.27	\$285.09	\$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	\$189.45	\$105.12	\$/kW-Year (ICAP basis)
	070.4	100 5	102.0	
	378.4	180.5	183.3	MW (@ 90°)
I otal Annual Revenue Req. =	\$36,049,993	\$34,195,140	\$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	MVV (@ 90°)
Winter DMNC	436.7	196.0	196.0	MW (@ Capital - 15.3°, NYC/LI - 28°)
Summer Reference Point =	\$9.41	\$20.38	\$9.95	\$/kW-Month (ICAP basis)
Winter Reference Point =	\$5.33	\$9.28	\$6.52	\$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	\$3,682,811	\$3,880,352	\$1,931,892	
Monthly Revenue (Winter) =	\$2,327,366	\$1,819,066	\$1,278,050	
Seasonal Revenue (Summer) =	\$22,096,863	\$23,282,112	\$11,591,352	
Seasonal Revenue (Winter) =	\$13,964,195	\$10,914,394	\$7,668,302	
Total Annual Revenue =	\$36,061,058	\$34,196,506	\$19,259,654	validates "Total Annual Revenue Req." is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	\$9.41	\$20.38	\$9.95	\$/kW-Month (ICAP basis)
ICAP Max. Clearing Price = \$15.28		\$35.64	\$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	\$289.93	\$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	\$192.67	\$106.90	\$/kW-Year (ICAP basis)
	378 4	180.5	183.3	MW (@ 90°)
Total Annual Revenue Reg =	\$36 662 843	\$34 776 458	\$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	\$20.72	\$10.12	\$/kW-Month (ICAP basis)
Winter Reference Point =	\$5.42	\$9.44	\$6.63	\$/kW-Month (ICAP basis)
Monthly Revenue (Summer) =	\$3,745,430	\$3,945,088	\$1,964,899	
Monthly Revenue (Winter) =	\$2,366,665	\$1,850,429	\$1,299,613	
Sassanal Poyonua (Summar) -	¢22 472 580	\$23,670,528	¢11 780 205	
Seasonal Revenue (Winter) -	\$22,472,300 \$14 100 088	\$23,070,320	\$7707676	
	\$14,133,300	\$11,102,373	\$1,797,070	volidataa "Tatal Appual Payapua Pag " ia mat
	\$30,072,300	\$34,773,101	\$19,507,071	validates Total Alindal Revenue Req. is met
Demand Curve Parameters				
ICAP Monthly Reference Point =	\$9.57	\$20.72	\$10.12	\$/kW-Month (ICAP basis)
ICAP Max. Clearing Price =	\$15.54	\$36.24	\$32.34	\$/kW-Month (ICAP basis)
Demand Curve Length	112%	118%	118%	

NYCA Demand Curves



NYC Demand Curves



LI Demand Curves

