



HUNTON & WILLIAMS LLP
1900 K STREET, N.W.
WASHINGTON, D.C. 20006-1109

TEL 202 • 955 • 1500
FAX 202 • 778 • 2201

TED J. MURPHY
DIRECT DIAL: 202-955-1588
EMAIL: tmurphy@hunton.com

FILE NO: 55430.000072

July 23, 2010

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Errata filing of New York Independent System Operator, Inc.
Docket Nos. EL07-39-006 and ER08-695-004

Dear Ms. Bose:

It has come to the NYISO's attention that the affidavit of Eugene T. Meehan, which was submitted yesterday in the above-captioned proceedings, contained a typographical error that must be corrected in order to avoid misstating a substantive point. The NYISO is therefore submitting a clean corrected version of the complete affidavit (Attachment I) along with a black-lined version (Attachment II) of the corrected page. I hereby certify that copies of this letter, and the material referenced above, will be served on all parties in these proceedings concurrent with their electronic submission to the Commission..

Sincerely,

/s/ Ted J. Murphy

Ted J. Murphy
Counsel for the
New York Independent System Operator, Inc.

ATTACHMENT I

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.

Docket Nos. EL07-39-006
ER08-695-004

**AFFIDAVIT OF
EUGENE T. MEEHAN**

1. I, Eugene T. Meehan, submit this affidavit in support of *Request for Leave to Answer and Answer* of the New York Independent System Operator, Inc. ("NYISO") in the above captioned proceedings. The NYISO's answer responds to the *Request for Rehearing* of the Independent Power Producers of New York, Inc. ("IPNNY Request"), the similar requests submitted by two individual ICAP Suppliers¹, and the *Request for Leave to Answer and Answer* of the New York Transmission Owners ("NYTOs' Answer").
2. I am a Senior Vice President at NERA Economic Consulting ("NERA"). I have over 35 years of experience consulting on regulatory and market issues related to the electricity industry and have worked for electric utilities, regulators and governments. I have provided expert testimony before this Commission, various state regulatory bodies and in courts and arbitration proceedings. Attachment 1 sets forth my qualifications in greater detail.
3. In 2007, NERA was retained by the NYISO to provide an independent perspective on the update of the Demand Curves² for the period from May 1, 2008 to April 30, 2011. I directed that effort and developed the methodology to "levelize" the investment in a new peaking unit

¹ The NRG Companies and TC Ravenswood, LLC.

² Capitalized Terms that are not otherwise defined herein shall have the meaning specified in Article II, or Attachment H, of the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff").

that was used in that update. Levelization refers to the process of converting the investment to an annual value that provides for a return on and of capital.

4. I have been asked by the NYISO to prepare an affidavit that describes the calculation of the net cost of new entry used to establish the Demand Curves in NYISO's Installed Capacity ("ICAP") market and to address the issue of whether the price value on the New York City Demand Curve at 100% of the required In-City capacity level equals the localized levelized embedded costs of a peaking unit in the New York City Locality, net of the likely projected annual Energy and Ancillary Services revenues of such unit, as determined in connection with establishing the Demand Curve for the New York City Locality pursuant to § 5.14.1(b) of the Services Tariff; that is, the concept referred to in the context of the Demand Curves as "Net CONE".
5. The NYISO has asked me to address this issue in order to clarify and explain that the value of the New York City Demand Curve at 100% of the minimum required capacity level is equal to Net CONE. Absent such a clarification, it is possible that the Commission's May 20, 2010 determination on the term Net CONE for purposes of In-City ICAP mitigation could be erroneously applied to the development of the Demand Curves used in NYISO's ICAP market.
6. It is my unequivocal opinion that the value of the Demand Curve at 100 percent of the minimum required capacity level best represents the localized levelized embedded costs of a peaking unit in the New York City Locality, net of the likely projected annual Energy and Ancillary Services revenues of such unit, as determined in connection with establishing the Demand Curve for the New York City Locality pursuant to § 5.14.1(b) of the Services Tariff,

or Net CONE as that term is used in the 2008-2011 Demand Curves. I offer this opinion having developed the methodology used in the Demand Curve reset.

7. Net CONE for the 2007 Demand Curve reset for the New York City Locality was developed from the following parameters:

- The investment required to construct an LMS 100;
- The carrying charge or percentage of the investment that must be realized each year in order to provide a return on and of capital over the economic life of the investment;
- Other annual fixed expenses such as fixed O&M, site leasing, insurance and property taxes; and,
- An estimate of the annual net energy and ancillary service revenue that the LMS 100 would earn if installed capacity was just slightly above the minimum required level.

8. Consistent with the Services Tariff requirements for establishing the Demand Curve (§5.14.1(b)), Net CONE was developed by multiplying the investment by the carrying charge rate adding other annual fixed costs and subtracting annual net energy and ancillary service revenues that would prevail if Installed Capacity was just slightly above the minimum required level.

9. The investment used in the 2007 Demand Curve reset was developed by Sargent and Lundy, LLC., ("Sargent and Lundy"), an engineering firm with expertise in estimating the cost of constructing new power plants. The net energy revenues were developed by NERA using an econometric model. The levelization of the investment costs was developed by NERA using standard levelization formulas which were executed by Sargent and Lundy based on inputs from NERA. Those inputs included the assumed capital structure, costs of capital, amortization period and inflation rate.
10. NERA assumed an investment grade capital structure of 50% debt and 50 % equity with a debt cost of 7% and an equity cost of 12.0%. Having specified an investment grade capital structure and costs of capital, these values can be observed using market data. NERA assumed an inflation rate of 2.9%. This assumption was based on prevailing consensus forecasts. NERA then asked Sargent and Lundy to calculate economic carrying charge rates for amortization periods ranging from 10 to 35 years using these inputs. An economic carrying charge is also referred to as real carrying charge as it is developed in constant or real dollars and assumes that each year will see the nominal revenue recovery rise at the rate of inflation. This is the reason that the rate of inflation is an input in the development of the carrying charge.
11. The calculation described above provides only various possible values for the carrying charge. In order to determine a single value it is necessary to select a single value for the amortization period. Unlike the other inputs which are guided by observable third party forecasts or market data, the amortization period cannot be observed. It is the period over which the investor will seek to fully recover the capital invested and a return on that capital.

It is a critical value as the amortization period directly affects the carrying charge rate. Just as a 15 year mortgage will have a higher monthly payment than a 30 year mortgage, the economic carrying charge rate for a 15 year amortization period will be higher than that for a 30 year amortization period.

12. The amortization period does not necessarily correspond to the potential physical life of the facility. It is an economic concept. While a house may well last for well over a century, mortgages tend to be limited to 30 years. The amortization period corresponds to the period over which an investor would reasonably seek to recover invested capital.
13. The most typical method for determining the amortization period would be to make an assumption using informed judgment. PJM, for example, makes such an assumption and uses 20 years as the amortization period in developing the net cost of new entry for the Reliability Pricing Model ("RPM") demand curves. The Commission has approved those curves and hence at least implicitly approved that assumption in connection with a new peaking unit. PJM uses a nominal as opposed to real levelized carrying charge³ method and a 20 year nominal amortization period is equivalent to an approximately 16 year real amortization period. A real levelized charge is the equal annual percentage of the investment that if escalated at inflation will yield the required return on and of capital over the amortization period. A nominal levelized charge is the equal annual percentage of the investment not escalated that will yield the required return on and of capital over the

³ The report prepared for PJM states that "the total levelized value represents constant, non-escalating annual capacity revenues over the 20-year project life". See page 6 of the "2008 Update of Cost of New Entry Combustion Turbine Power Plant Revenue Requirements For PJM Interconnection, LLC. Pasteris Energy, Inc, dated January 7, 2008.

amortization period. Hence a nominal levelized charge will in the first year, which is the relevant year, be considerably higher than a real levelized charge.

14. In performing the 2007 Demand Curve reset, I considered determining the amortization period by simply making an assumption, but rejected that alternative in favor of a methodology that would determine an amortization period by explicitly modeling some of the risks that are associated with the investment in a peaking unit. Among, the risks that were explicitly modeled were the risks of excess capacity caused by an institutional bias toward having more than the minimum required level of capacity, regulatory risk and the risk of technological progress lowering real price in the future. In addition to risk, I also considered value adding items such as the residual value of the investment at the end of its potential physical life. This modeling yielded values for the amortization period of between 13.5 and 18.5 years for the NYISO localities with a value of 13.5 for the New York City Locality. The NYISO Board of Directors adjusted some of the items, including removing the regulatory risk value and, ultimately, the Demand Curves were reset in 2007 using amortization period between 17.5 and 24.5 years, with the New York City Locality set based upon a 17.5 year amortization period and a real levelized carrying charge methodology.⁴ This means that the Net CONE at the reference point (the minimum required capacity level) for New York City reflects a levelization of the investment developed using a 50% debt/50% equity capital structure, a debt cost of 7%, an equity cost of 12.0 %, and an amortization period of 17.5 years. This is the correct representation of the localized levelized embedded

⁴ As noted above a 20 year nominal amortization period is approximately equal to a 16 year real amortization period. Hence, the 17.5 year real amortization period used in the last Demand Curve reset for the New York City Locality would translate to approximately a 22 year nominal amortization period, a longer period which would result in a lower carrying charge than that approved by the Commission for PJM's RPM demand curves.

costs of a peaking unit in the New York City Locality and it corresponds to the value on the Demand Curve at the minimum required capacity level of 100% not the value at 104%.

15. I developed the amortization period using a model as opposed to simply using judgment, because there is another parameter that needs to be considered in establishing the Demand Curve. This parameter is the slope of the Demand Curve. A steeper Demand Curve increases risk as the consequences of excess capacity are greater. Given that procedures are in place to stimulate a market solution or implement a regulated solution if capacity in the NYISO is not adequate, and hence there is little chance for an upside related to a steep Demand Curve, a steep Demand Curve will increase risk and all else equal will result in an investor using a shorter amortization period to set the price at which it is willing to enter. The model developed is primarily a tool that enables an objective relationship to be established between the slope of the Demand Curve and the carrying charge by solving for the amortization period used to develop the value of the Demand Curve at the reference point or minimum required capacity level.

16. In order to solve for the impact of the slope of the Demand Curve, the model must be provided with an assumption of the average level of excess capacity that will result from the bias toward never being short. This assumed value was 104% of the minimum required level for the New York City Locality. The model was executed using this assumption and the slope of the Demand Curve for the sole purpose of determining how these factors and several other less significant risk factors would affect the amortization period, which as described above is an essential element in calculating the carrying charge rate. The NYTOs' Answer could be read as claiming that the value on the Demand Curve at the assumed level of excess


capacity (104%) is equal to the levelized localized embedded cost of a peaking unit. This would be incorrect and would imply an unrealistically long 35 plus year amortization period for the carrying charge used to develop the levelized localized embedded cost of a peaking unit. It is important to understand that although the Demand Curve model examines the recovery investment over a 30 year period assuming an average level of excess capacity in order to solve for the amortization period, the value of the Demand Curve at that average level of excess capacity is not representative of the levelized localized embedded cost of a peaking plant assuming a carrying charge based on a realistic and consistent assumptions.

17. The 2007 Demand Curve reset process set the value of the Demand Curve for the New York City Locality at the minimum required capacity level (*i.e.*, 100%) based upon the investment cost of a new LMS100 unit at a two unit site, based upon an econometric model of net energy and ancillary service revenues and based on realistic and consistent assumptions as to the parameters used to develop the carrying charge. It is my understanding that the NYTOs previous filings in this docket, and their Answer recommended that the point on the Demand Curve at 104% be utilized for purposes of In-City Capacity mitigation measures. I am not expressing an opinion on that point in this Affidavit, nor am I expressing an opinion on whether the same point be used for purposes of mitigation as is used for the Demand Curve reset. However, as described by the NYISO's Answer and above in this Affidavit, any inference drawn from the NYTOs previous filings that Net CONE corresponds to the value of the Demand Curve at 104% of the minimum required capacity level, or in fact at any value other than 100% of the minimum required capacity level, is not accurate.

18. Further affiant saith not.


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.


Eugene T. Meehan

Subscribed and sworn to before me
this 21st day of July, 2010.

SS: District of Columbia


Notary Public
Rosalind Brown
Notary Public, District of Columbia
My Commission Expires 12/14/2014

My commission expires:

ATTACHMENT II

capacity (104%) is equal to the levelized localized embedded cost of a peaking unit. This would be incorrect and would imply an unrealistically long ~~30-35~~ plus year amortization period for the carrying charge used to develop the levelized localized embedded cost of a peaking unit. It is important to understand that although the Demand Curve model examines the recovery investment over a 30 year period assuming an average level of excess capacity in order to solve for the amortization period, the value of the Demand Curve at that average level of excess capacity is not representative of the levelized localized embedded cost of a peaking plant assuming a carrying charge based on a realistic and consistent assumptions.

17. The 2007 Demand Curve reset process set the value of the Demand Curve for the New York City Locality at the minimum required capacity level (*i.e.*, 100%) based upon the investment cost of a new LMS100 unit at a two unit site, based upon an econometric model of net energy and ancillary service revenues and based on realistic and consistent assumptions as to the parameters used to develop the carrying charge. It is my understanding that the NYTOs previous filings in this docket, and their Answer recommended that the point on the Demand Curve at 104% be utilized for purposes of In-City Capacity mitigation measures. I am not expressing an opinion on that point in this Affidavit, nor am I expressing an opinion on whether the same point be used for purposes of mitigation as is used for the Demand Curve reset. However, as described by the NYISO's Answer and above in this Affidavit, any inference drawn from the NYTOs previous filings that Net CONE corresponds to the value of the Demand Curve at 104% of the minimum required capacity level, or in fact at any value other than 100% of the minimum required capacity level, is not accurate.

18. Further affiant saith not.