FILED AND ENTERED ON DATE

ROCKLAND COUNTY CLERK

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF ROCKLAND
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ORANGE AND ROCKLAND UTILITIES, INC.,

Petitioner,

SOUTHERN ENERGY BOWLINE, LLC.,
MIRANT NEW YORK, INC.,
MIRANT BOWLINE, LLC,

Intervenor-Petitioners,

-Against-

DECISION & ORDER

Index Nos: 4133-95
4346-96
4424-97
4639-98
4238-99
4358-00
4694-01
5120-02
5278-03

THE ASSESSOR OF THE TOWN OF HAVERSTRAW
THE BOARD OF REVIEW OF THE TOWN OF
HAVERSTRAW and THE TOWN OF HAVERSTRAW

Respondents,

COUNTY OF ROCKLAND and NORTH ROCKLAND
CENTRAL SCHOOL DISTRICT,

Intervenors-Respondents.

For a Review of Tax Assessments Under Article 7
of the Real Property Tax Law.

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DICKERSON, J.

POST TRIAL DECISION: THE BOWLINE POINT GENERATION STATION

The trial of this Real Property Tax Law [" RPTL "] Article 7 proceeding challenging the Petitioners' real property tax assessments for the years 1995-2003 imposed upon the Bowline Point Generation Station [" Bowline "] in the Town of Haverstraw, New York [and its companion tax certiorari proceeding, Mirant New York, Inc. v. Town of Stony Point Assessor[1], challenging the real property tax assessments for the years 2000-2003 imposed upon the Petitioners' Lovett Generation Station [" Lovett "] in the Town of Stony Point, New York] lasted a total of fifty-nine (59) days during which numerous experts[2] and other witnesses[3] testified. After a careful review the trial record and exhibits and the excellent post trial memoranda of law including findings of fact and conclusions of law submitted by the parties this Court in cooperation with Judge D. Michael Lynn of the United States Bankruptcy Court of the Northern District of Texas in the matter of In Re: Mirant Corporation[4] now renders its decision regarding the full market value of Bowline.

Nature Of The Property

Bowline is situated on thirty-three (33) parcels located on, approximately, 260 acres within the Town of Haverstraw, New York [" the Town "]. Bowline consists of two conventional steam generating units with a total generating capacity rating of 1,200 MW. Constructed in the early 1970s by Orange & Rockland Utilities, Inc. [" O&R "] and

Consolidated Edison Company of New York [" Con Edison "], Bowline provides electricity to the southern Hudson River Valley of New York State. The two generating units have some common facilities including water intake structures, fuel receiving, storage and handling systems, water treatment systems, warehouses, maintenance shops, a chemistry laboratory, administrative offices and an electrical switchyard[5]. The assessments before the Court also concern two substations, two underground 345 KV transmission lines, gas lines, and 97 acres of excess land adjacent to the Plant, which have been severed from these proceedings[6].

The Tax Parcels

By stipulation and order of this Court, the Bowline parcels are identified by tax I.D. number on the assessment rolls of the Town as follows[7]:

20.16-2-4	21.17-1-2	21.17-1-3
21.17-1-4	21.17-1-5	26.07-4-4
26.07-4-5	26.07-4-6	26.07-5-71
26.07-5-72	26.08-2-39	26.08-3-32
26.08-3-33	27.05-1-1	27.05-1-2
27.05-1-3	27.05-1-4	27.05-1-5
27.05-2-2	27.05-2-3	27.05-2-4
27.05-2-6	27.09-1-1	27.09-1-2

600.00-277.1	600.00-277.2	600.00-277.3
600.00-277.4	600.00-277.5	600.00-277.6
600.00-277.7	600.00-324	600.00-325

The Equalization Rates

The parties have stipulated that the equalization rate for the Town of Haverstraw for each year in question is as follows[8]:

1995	**11.37%**
1996	**11.36%**
1997	**11.93%**
1998	**11.97%**
1999	**11.56%**
2000	**9.36%**
2001	**8.6%**
2002	**8.01%**
2003	**8.01%**

The Land Value And Equalized Full Values

The parties have further stipulated to a land value $19,800,000[9] for all years in question and equalized full values of the Bowline parcels as follows:

1995	**$668,930,519**
1996	**$670,055,458**
1997	**$638,041,073**
1998	**$689,037,594**
1999	**$713,475,779**
2000	**$881,173,077**
2001	**$959,044,186**
2002	**$1,039,625,468**
2003	**$1,029,685,393**

History Of Proceedings

Originally, O&R commenced RPTL Article 7 proceedings to review the real property tax assessments made on Bowline's real property located in the Town. The initial proceedings involved the Town's assessments made on the 1995, 1996, 1997, and 1998 final assessment rolls[10]. These assessments were used to determine O&R's 1995/1996, 1996/1997, 1997/1998, and 1998/1999 school taxes, and its 1996, 1997, 1998 and 1999

town, county and special district taxes[11]. Initially, O&R only challenged the assessments on the Bowline Station. Subsequently, it also challenged the assessed values on its transmission and distribution property located in the Town.

In July 1999, Southern Energy Bowline, LLC, [" SEB "], an affiliate of Southern Energy, Inc. [" SEI "], purchased the Bowline Station from O&R for $193,800,000 [value of real property assets][12]. As part of that transaction, O&R agreed that SEB would recover the refunds, if any, from the 1995 through 1998 proceedings relative to Bowline[13]. Subsequently, SEB changed its name to Mirant Bowline, LLC [" Mirant "]. Commencing in 2000, Mirant brought tax certiorari proceedings against the Town challenging the assessments made on the Town's 1999, 2000, 2001, 2002 and 2003 final assessment rolls[14]. These assessments were used to determine Mirant's 1999/00, 2000/01, 2001/02, 2002/03 and 2003/04 school taxes, and its 2000, 2001, 2002, 2003 and 2004 town, county and special district taxes[15]. During the trial this Court granted Petitioners' motion[16] deeming Mirant New York, Inc. to be an aggrieved party within the meaning of the Real Property Tax Law in the proceedings commenced by it, and further granting Mirant Bowline, LLC permission to intervene in these proceedings. The Court also allowed substitution of Mirant Bowline, LLC in each of the proceedings commenced by Southern Energy Bowline, LLC.

The Valuation Floor

In establishing Bowline's full market value this Court must be guided by its earlier decision [Orange and Rockland Utilities, Inc. v. Assessor of the Town of Haverstraw, 7 Misc. 3d 1017, 801 N.Y.S. 2d 238 (2005)] wherein the Petitioners sought " ' to amend its petitions [for the years 1995 through 2003] to conform them to the proof of the fair market value opined by (Mirant's) appraiser at trial ' ".

The Petitions set forth the following full value figures;

1995 Full Value of **$409,115,435**

1996 Full Value of **$420,116,095**

1997 Full Value of **$321,733,445**

1998 Full Value of **$224,471,245**

1999 Full Value of **$156,995,675**

2000 Full Value of **$771,026,464**

2001 Full Value of **$191,723,256**

2002 Full Value of **$205,333,333**

2003 Full Value of **$180,340,000**

At trial, Petitioners' appraiser, after reconciling the cost[17] [reproduction cost new less depreciation [" RCNLD "][1995-2003]], income[18] [discounted cash flow [" DCF "]] [1998-2003] and sales

comparison[19] [2000-2003] approaches[20], concluded that the fair market value of Bowline was as follows;

1995 Fair Market Value of **$211,000,000**[21]

1996 Fair Market Value of **$187,000,000**[22]

1997 Fair Market Value of **$146,000,000**[23]

1998 Fair Market Value of **$150,000,000**

1999 Fair Market Value of **$125,000,000**

2000 Fair Market Value of **$175,000,000**

2001 Fair Market Value of **$150,000,000**

2002 Fair Market Value of **$200,000,000**

2003 Fair Market Value of **$200,000,000**

This Court denied the Petitioners' request but did reduce the 2000 Petition full value figure from $771,026,464 to $341,000,000 because " [t]he Respondents' appraiser concluded a fair market value for the bowline Station for the year 2000 of $341,000,000. The Respondents are bound by their admission against interest ". Based on the same principal this Court hereby substitutes Petitioner's 2003 fair market value of $200,000,000 for the $180,340,000 full market figure set forth in the 2003 Petition.

Based on the foregoing the floor of full values, below which this Court may not go, are as follows:

1995 Full Value of **$409,115,435**

1996 Full Value of **$420,116,095**

1997 Full Value of **$321,733,445**

1998 Full Value of **$224,471,245**

1999 Full Value of **$156,995,675**

2000 Full Value of **$341,000,000**

2001 Full Value of **$191,723,256**

2002 Full Value of **$205,333,333**

2003 Full Value of **$200,000,000**

The Valuation Ceiling

Having established a valuation floor, it is necessary to establish a valuation ceiling, above which this Court may not go. The Town's equalized full value figures are as follows;

1995 Equalized Full Value of **$668,930,519**

1996 Equalized Full Value of **$670,055,458**

1997 Equalized Full Value of **$638,041,073**

1998 Equalized Full Value of **$689,037,594**

1999 Equalized Full Value of **$713,475,779**

2000 Equalized Full Value of **$881,173,077**

2001 Equalized Full Value of **$959,044,186**

2002 Equalized Full Value of **$1,039,625,468**

2003 Equalized Full Value of **$1,029,685,393**

However, the Respondents' appraiser, after reconciling the cost [RCNLD][1995-2003] and income [DCF][2000-2003] approaches concluded[24] that the fair market value of Bowline was as follows;

1995 Fair Market Value of **$664,000,000**

1996 Fair Market Value of **$671,000,000**

1997 Fair Market Value of **$626,000,000**

1998 Fair Market Value of **$486,000,000**

1999 Fair Market Value of **$572,000,000**

2000 Fair Market Value of **$341,000,000**

2001 Fair Market Value of **$531,000,000**

2002 Fair Market Value of **$411,000,000**

2003 Fair Market Value of **$454,000,000**

The 1996 Petition Has Been Dismissed

The Petition challenging the 1996 assessment imposed upon Bowline has previously been dismissed [Orange and Rockland Utilities, Inc. v. Assessor of the Town of Haverstraw, 4 Misc. 3d 1005, 791 N.Y.S. 2d 871

(2004)(“ Respondent’s motion to strike the Note of Issue and dismiss the 1996 tax assessment review proceeding, pursuant to RPTL § 718 is granted “)].

Purchase Price As The Best Evidence Of 2000 Full Market Value

In July 1999 [after the 1999 taxable status date of January 1, 1999] SEB purchased Bowline from O&R and Con Edison for $193,800,000 [value of real property assets] within the context of a two phase auction process. An interesting but moot issue [since Petitioner is bound by the $341,000,000 floor for tax year 2000 in any event] is the extent to which a purchase price “ of recent vintage “ is the best evidence of the true value of Bowline, at least, for tax year 2000.

The Sale Of Bowline Was An Arm’s Length Transaction

After a careful review of the circumstances of that transaction *as encouraged* by the New York State Public Service Commission [“ P.S.C. “] in Opinion No. 92-12, pp. 65-66[25] (“ We strongly encourage divestiture, particularly of generation assets, but do not require it immediately...While divestiture of energy service company operations is encouraged, for now we will allow utilities to continue to provide energy services to their customers either directly or through an

affiliate "), *as monitored* by the P.S.C. in Order Authorizing The Process For Auctioning Of Generation Plant dated April 16, 1998[26] (" O&R's Divestiture Plan provides for the auctioning of all of its generation assets, a portfolio that totals slightly less than 1000 MW of capacity with a book value of about $280 million. O&R owns the fossil-fueled Lovett Station, sized at 416 MW and a one-third interest in the Bowline Station or 400 MW out of a total of 1200 MW...the utility proposed essentially a two-phase auction process ") and *as approved* by the P.S.C. in Order Approving Transfer Of Generating Facilities And Making Other Findings dated June 24, 1999[27] (" The Auction Plan Order approved (O&R's) proposal to conduct a two-phase auction...Donaldson, Lufkin and Jenrette Securities Corporation (DLJ) served as (O&R's) financial advisor as well as the auction administrator...DLJ began the auction process in early June 1998 by soliciting expressions of interest in the auction from approximately 175 interested entities...DLJ invited qualified bidders to participate in Phase I and submit non-binding initial bids...Upon D.J.'s...recommendation, (O&R) invited a select group of bidders to participate in Phase II...(O&R) asserts that the identity of Phase II bidders was kept confidential...DLJ received Phase II bids on October 23, 1998. Subsequently, after a period of negotiations, (O&R), Con Edison and the (SEI) Affiliates executed final contracts for Southern's purchase of all of the generating assets...on November, 24, 1998...<u>Transition Power Contracts</u>...While the capacity price appears somewhat high...it is offset by the energy

price...the benefit provided by the energy price appears to justify the capacity payment...Load Pocket Agreements...The payment that (O&R) will make to (SEI) for energy required during load pocket hours is a function of historical generation characteristics, fuel price indices and market revenues. The penalties and legal provisions...which are meant to ensure that reliability will be safeguarded are reasonable...Energy Sales Agreements. The energy price derivations contained in the Incremental Energy Sales Agreement(s)...are reasonable...the energy prices contained in these agreements are reasonable as compared to the market price of electric futures...Comparison to Other Auctions. A large number of generation auctions have been completed to date...Overall, generation auctions for all types of assets have seen prices averaging $319 per KW. This auction resulted in an average price of $268 per KW, which is acceptable given the operating characteristics of the Purchased Assets...with the adjustments discussed above, the utilities' ratepayers have received fair and reasonable value for the Purchased Assets...the proposed transfer is approved as in the public interest "), and as discussed in the Record[28] and in Petitioners' and Respondents' Memoranda of Law[29], this Court finds that the transaction was arm's length and the sale price of $193,800,000 [value of real property assets] is the best evidence of value of Bowline for the tax year 2000, the sale occurring before the January 1, 2000 taxable status date [See e.g., Plaza Hotel Associates v. Wellington Assocs., 37 N.Y. 2d 273, 277, 372 N.Y.S. 2d 35 (1975)

(“ the purchase price set in the course of an arms’s length transaction of recent vintage, if not explained away as abnormal in any fashion, is evidence of the ‘ highest rank ’ to determine the true value of the property at that time “) quoting, Matter of Woolworth Co. v. Tax Comm., 20 N.Y. 2d 561, 285 N.Y.S. 2d 604 (1967); Matter of Reckson Operating Partnership, LP v. Assessor of the Town of Greenburgh, 289 A.D. 2d 248, 734 N.Y.S. 2d 478 (2nd Dept. 2001); Matter of Robert Lovett v. Assessor of the Town of Islip, 298 A.D. 2d 521, 748 N.Y.S. 2d 517 (2nd Dept. 2002); Matter of Application of 325 Highland, LLC v. City of Mount Vernon, 5 Misc. 3d 1018 (West. Sup. 2004); Review and Reduction of Real Property Assessments in New York[30] (“ it has been held that an actual sale of the subject property at arm’s length is the very best evidence because it is directly reflective of market value, if recent in time and not explained away as abnormal in any fashion “)] notwithstanding that the transaction took place within the context of an auction [See e.g., Matter of City of New York(Grimm), 98 A.D. 2d 166, 471 N.Y.S. 2d 105 (2d Dept. 1983)(“ Under all of these circumstances, we conclude that the auction sales were not of a ‘ panic ‘ or ‘ distress ‘ sale nature and that, on the facts at bar, they were not so abnormal in nature as to preclude their use or to minimize their weight “)].

The Floor & Ceiling For Each Year At Issue

1995	Valuation Ceiling	**$664,000,000**
	Valuation Floor	**$409,115,435**
1997	Valuation Ceiling	**$626,000,000**
	Valuation Floor	**$321,733,445**
1998	Valuation Ceiling	**$486,000,000**
	Valuation Floor	**$224,471,245**
1999	Valuation Ceiling	**$572,000,000**
	Valuation Floor	**$156,995,675**
2000	Valuation Ceiling	**$341,000,000**
	Valuation Floor	**$341,000,000**
2001	Valuation Ceiling	**$531,000,000**
	Valuation Floor	**$191,723,256**
2002	Valuation Ceiling	**$411,000,000**
	Valuation Floor	**$205,333,333**

2003 Valuation Ceiling	**$454,000,000**
Valuation Floor	**$200,000,000**

Overcoming The Presumption Of Validity

Notwithstanding the Petitioners' accurate observation that Bowline was " grossly over-assessed " during the years in dispute[31] [See e.g., Matter of Arsenal Housing Associates v. City Assessor of City of Watertown, 298 A.D. 2d 830, 747 N.Y.S. 2d 814 (4th Dept. 2002); Matter of South Slope Holding Corp. v. Comstock, 280 A.D. 2d 883, 721 N.Y.S. 2d 171 (4th Dept. 2001)(" We conclude that the court was required to consider the entire record and that respondents' appraisals, received in evidence, constituted admissions against interest by respondents that the assessments were excessive to the extent that they exceeded those appraisals ")], the Petitioners must, through the submission of substantial evidence, overcome the presumptive validity of the disputed assessments [See e.g., Matter of FMC Corp. [Peroxygen Chems. Div.] v. Unmack, 92 N.Y. 2d 179, 677 N.Y.S. 2d 269 (1998)(" ' In the context of tax assessment cases, the substantial evidence standard merely requires that petitioner demonstrate the existence of a valid and credible dispute regarding valuation. The ultimate strength, credibility and persuasiveness are not germane during this threshold inquiry...a court should simply determine whether the documentary evidence and testimonial evidence proffered by petitioner is based on ' sound theory and

objective data ‘ “; Matter of Niagara Mohawk Power Corp. v Assessor of the Town of Geddes, 92 NY 2d 192, 677, N.S. 2d 275 (“ In the context of a proceeding to challenge a tax assessment, substantial evidence proof requires a detailed, competent appraisal based on standard, accepted appraisal techniques and prepared by a qualified appraiser ”); Matter of Reckson Operating Partnership v. Assessor of the Town of Greenburgh, 2 Misc. 3d 1005 (West. Sup. 2004)(“ This Court finds that the Petitioner has submitted substantial evidence based upon ‘ sound theory and objective data ‘ consisting of an Appraisal and the testimony of (its appraiser), and as such has demonstrated the existence of a valid dispute concerning the propriety of the assessments. Having met its initial burden, the Petitioner must prove, through a preponderance of evidence, that the assessments are excessive. The Court has considered and evaluated the weight and credibility of the evidence submitted to determine whether the Petitioner has proven that the assessments are excessive “)].

The Petitioners through the testimony and evidentiary submissions of Dr. Lawrence Makovich[32], a Ph.D. economist and senior director at Cambridge Energy Research Associates [“ CERA “], who provided forecasts of pricing for electricity, natural gas, oil and coal as of January 1, 1998, 1999, 2000, 2001, 2002 and 2003, William Crean[33], a licensed professional engineer and cost estimator of electric generating plants and employed by Black & Veatch, who provided calculations of the reproduction and replacement costs and depreciation of Bowline as of

each of the valuation dates and Michael Remsha[34] of American Appraisal Associates, an appraiser and licensed professional engineer in the State of Wisconsin, who provided an appraisal of Bowline using three valuation methods, i.e., cost [RCNLD] [1995-2003], income capitalization [DCF] [1998-2003] and sales comparisons [2000-2003], Victoria Lynch[35], an employee of Mirant Corporation and former employee of O&R who testified regarding O&R's trading arm that was formed in 1997 to trade in various wholesale markets including the New York Power Pool and Eddie Dorsett[36], a former employee of Southern Energy International [" SEI "] and Mirant Corporation, who testified about the sale of Bowline to SEB and about the trading activities of SEI in the electricity wholesale market, the Petitioners have met their threshold burden of presenting substantial credible evidence, including an appraisal based on " standard accepted appraisal techniques and prepared by a qualified appraiser ", to overcome the presumption of validity of the assessments imposed by Respondents upon Bowline for each of the disputed tax years.

Petitioners' Valuation Methodologies

What is the true value of Bowline? It is clear that for the remaining tax years in dispute [1995, 1997-2003] Bowline's true value must be between its valuation floor and ceiling. It is for this reason that an extensive analysis of the valuation methodology used by Petitioners [i.e., cost [RCNLD][1995, 1997-2003], income [DCF]

[1998-2003] and sales comparison [2000-2003] approaches] is unnecessary[37] since, in any event, all of Petitioners' reconciled values are at or below the valuation floor[38]. Nonetheless, this Court will evaluate each one of Petitioners' valuation methodologies.

Respondents' Valuation Methodologies

This is not to say, however, that Respondents' reconciled values[39] which serve as the valuation ceiling are not subject to reduction based upon an evaluation of their methodologies.

Selecting A Reasonable Valuation Methodology

Stated, simply, the Court rejects the Respondents' income [DCF] [2000-2003] and cost [RCNLD][1995, 1997-2003] methodologies, rejects the Petitioners' income [DCF] [1998-2003] and sales comparison [2000-2003] methodologies and accepts Petitioners' cost [RCNLD][1995, 1997-2003] methodology [with modifications] as the only reasonable method of establishing the true value of Bowline, particularly, given the inconsistency and anecdotal[40] nature of market data pre-NYISO and the unreliability and volatility of market data post-

NYISO, all of which developed during a tumultuous and disheartening[1] period of deregulation leading up to and after the benchmark date of December 1, 1999 when the New York Independent System Operator [" NYISO "] opened its doors for business [See e.g., Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 2003 WL 211726636 (N.Y. Sup. 2003)(valuation of hydroelectric facility for tax years 2000 and 2001), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)(" At trial, petitioner presented extensive appraisal evidence employing the comparable sales, DCF and RCNLD methods of valuation. Supreme Court accepted Petitioner's argument that, following deregulation of the industry, a market had developed for power facilities and, thus, they should no longer be considered specialty

[1] It's Beyond Mirant-Editorial, Journal News (June 16, 2006)(" ...Deregulation, promised in the 1980s by presidents and Congress as salvation for an energy-hungry nation, has not given consumers new sources of supply nor lowered their rates. Instead, it has put energy at risk, removed long-serving utility expertise from the market, encouraged bottom-line only profit seeking and mismanagement by such companies as Enron and confused consumers who were long used to the protection given by state regulators...The system wasn't broken, and deregulation seriously wounded it. The future ahead is in ever-escalating costs, a burden for local taxpayers and consumers and inadequate supply..."); See also: Conspiracy of Fools, Kurt Eichenwald, Broadway Books (2005)(" The implications of the Enron debacle were so vast that even years in hindsight, they are still coming into view. It set off what became a cascading collapse in public confidence...trillions of dollars in stock values vanished translating into untold numbers of second jobs, postponed retirements, lost homes, suspended educations and shattered dreams "); McLean & Elkind, The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron, Portfolio Trade (2004).

properties to be valued using only the RCNLD method...Inasmuch as the record supports Supreme Court's finding that petitioners' DCF analysis was based on unreliable price forecasts and overstated operating expenses, it was appropriate for the court to reject it and elect to use the RCNLD method. While this approach must be used with caution, since it may overvalue property if insufficient obsolescence is applied...Supreme Court met this concern by adopting petitioner's own figures. Contrary to petitioner's contention, *there is nothing inherently inappropriate about this approach, as we regularly upheld it for the valuation of hydroelectric facilities before deregulation* [emphasis added](see Matter of Niagara Mohawk Power Corp. v. City of Cohoes Bd. of Assessors, 280 AD 2d 724 (3d Dept. 2001) "); Matter of Consolidated Edison Company of New York v. City of New York, Index No. 8564/98 (Kings Sup. 2004)(Slip. Op. pp. 5-6)(Hon. Michael L. Peace)(" Historically, electric generating facilities (prior to deregulation) have been held to fall into a narrow category of ' specialty property ' which was required to be assessed using the RCNLD method of valuation...During the tax years under review [1994-1998] both appraisers found that the subject property was speciality property and stipulated at trial that the RCNLD method is the appropriate method of valuation in these proceedings "); Matter of TBG Cogen Partners v. The Assessor of the County of Nassau, New York Law Journal, August 15, 2001, p. 21, col. 3 (Nassau Sup. 2001)(J. Winslow)(" The property owners...contend that the property was over-assessed for the tax years

1994 through 2000. The property...is improved with a co-generation plant that was constructed in 1998 to produce steam and electricity from natural gas-powered turbines. Grumman/Northrup-Grumman has been the Plant's sole purchaser of steam for the Plant's entire working life to date...the parties agree that this is a ' specialty property ' and that...(RCNLD) is the proper method of valuation for determining true market value...The Court is being asked to consider the nature, applicability and extent of depreciation for functional and economic obsolescence on the value of specialty property *that is about to lose its specialty status and its statutorily dependent profit-producing capability* [emphasis added] ")].

<u>The Impact Of Deregulation On Valuation Methodologies</u>

Before computing the true value of Bowline using the cost [RCNLD] method it is necessary to discuss the deregulation of the markets in New York State for wholesale electricity and the sale of generating facilities, the creation and operation of the NYISO and the need, for tax certiorari purposes, to use reliable and actual data in valuing electricity generating facilities.

<u>The Market For Electricity</u>

The electricity industry is comprised of four functions: generation, transmission, distribution, and customer service[41]. Traditionally, these functions were integrated and provided by publicly owned electric utilities[42]. Starting in the late 1970s, general public concern about high-energy costs and the need for conservation caused federal and state governments to consider alternative solutions[43].

Rate Based Regulation

Historically, public electric utility companies [" PUCs "] or investor owned utilities [" IOUs "] were vertically integrated monopolies[44]. A state's public service or utility commission [e.g., New York State Public Service Commission [" P.S.C. "]] regulated the PUC's/IOU's rate of return on investments and compensable operating expenses. That is, the PUC/IOU provided service to the public at a determined " reasonable rate " on its investments in physical assets and operating expenses. This is known as rate-based regulation[45].

The Northeast Blackout

In 1965, the Northeast blackout occurred[46]. As a result, the North American Electrical Reliability Council [" NERC "] was formed to improve the United States' interconnection and communication between electric power pools or regions[47]. This Council increased the number of transactions between PUCs/IOUs to lower electricity production costs and increase reliability in the electric grid[48].

Regulating Interstate Energy Transmissions

Following the increase in oil prices during the early 1970's, the Federal Energy Regulatory Commission [" FERC "] was established in 1977[49]. FERC was created to regulate interstate electric and gas transmissions[50].

Opening The Market To Non-Utility Generators

To promote increased reliance on market forces, Congress passed the Public Utility Regulatory Policy Act [" PURPA "] of 1978[51]. PURPA permitted non-utility generators [" NUGs "] to enter the wholesale or bulk power market, by encouraging them to either buy or construct generating facilities, and to operate them independently of PUCs/IOUs[52]. As a result, NUGs sold power to PUCs/IOUs[53]. PURPA opened the market for small generators [e.g., eighty (80) megawatts [" MW "] or smaller], that were, primarily, hydroelectric, wood-burning, and co-generation

stations[54]. In 1981, the P.S.C. enacted the " 6-cents law "[55] which made operating NUGs " very lucrative...at times "[56].

A Wholesale Market For Electricity Evolves

Although not its original intent, PURPA resulted in increased competition in the wholesale market[57]. NUGs needed to find buyers for their excess capacity [i.e., excess of the capacity they sold to PUCs/IOUs][58]. Many of these transactions were telephonic and/or bilateral contracts that, generally, had to be filed with FERC[59].

Traders & Brokers

By the 1990s traders and brokers had entered the market and transacted sales of electricity even though they did not own any generation or transmission assets[60]. The entrance of these traders and brokers further increased the competitive forces driving the wholesale electricity market. Ultimately, to compete with traders and brokers, PUCs/IOUs set up their own trading rooms for wholesale transactions[61].

Merchants Of Electricity

In 1992, Congress passed the National Energy Policy Act

[" NEPA "][62]. This legislation allowed merchants [" independent power producers " or " IPPs "] to sell their generated electricity to PUCs/IOUs.

Open Access To Transmission Lines

In recognition of the increasing marketplace for electricity, in 1996 FERC issued Order 888[63] which required open access to PUCs' transmission facilities for all generators and lead to the proliferation of Purchase Power Agreements[64].

New York State Restructuring Begins

In the same year the P.S.C. issued Opinion No. 92-12[65] (" We strongly encourage divestiture, particularly of generation assets, but do not require it immediately...While divestiture of energy service company operations is encouraged, for now we will allow utilities to continue to provide energy services to their customers either directly or through an affiliate ") which culminated a three year investigation into " how elements of competition could be introduced into the State of New York electric industry "[66].

OASIS

FERC also issued Order 889 which required transparency in transmission line cost and access information, by making such information electronically available [known as the Open Access Sametime Information System [" OASIS "]][67].

Separating Transmission & Sales Employees

FERC Order 889 also required transmission providers to functionally separate their transmission employees from wholesale energy sales and purchase employees. These pieces of legislation and administrative orders encouraged the continued development of a competitive wholesale electricity market[68].

Publication Of Wholesale Pricing Information

In 1994 DRI/McGraw Hill [" McGraw Hill "] began publishing wholesale electricity prices [DRI Electricity Review[69]]. By 1995, McGraw Hill[70] also published reports of New York wholesale electricity prices[71]. In 1997, McGraw Hill daily reported electricity prices for both western [Zone G] and eastern [Zone A] New York. McGraw Hill sold its publication of eastern and western New York electricity prices to persons and entities that were trying to ascertain market trends, including traders and brokers, municipal utilities, trading rooms of PUCS and IPPs[72]. In addition to McGraw Hill's publication, competitive

wholesale transactions were reported by PUCs to FERC on FERC Form 1[73].

The Need For Cheaper Energy Sources

Wholesale electricity transactions in the 1990s may have resulted, in part, from production cost differentials between the various generators and their owner's desire to reduce costs by purchasing electricity from the lowest cost producers[74]. For example, O&R routinely sought cheaper energy sources [e.g., in the PJM and NEPOOL markets] to avoid having to run Bowline due to its high operating costs[75]. During this period some states determined that electricity prices were too high. As a result, some states began considering ways in which to encourage competition in an effort to reduce electricity prices.

The Market For Generating Plants In New York

As noted the P.S.C. issued Opinion No. 96-12[76] which encouraged investor-owned utilities [" IOUs "] to prepare proposed plans to restructure the generation portion of their companies, a process known as unbundling [" The provision of electric service in a time of

increasing competitive options facing consumers raises numerous complex issues. This proceeding was established to seek ways the industry could be restructured in light of these options, taking account of the need to lower rates for all customers in order to spur economic development in the State and to avoid jeopardizing safe and reliable electric service[77]...The recommended decision also suggested that all investor-owned utilities [" IOUs "] be directed to file, within six months...comprehensive long-term...(3) proposals for separating generation from transmission and distribution[78]...Critical to a movement toward a restructured industry is the need to avoid undue concentration of market power and particularly the use of monopoly power on the distribution side to unduly restrict choice on the generation side. Divestiture of generation and energy services is a clear way to allay concerns about vertical market power...Divestiture may create a number of competing generating companies...an advantage of divesting generation is that a clear market value for generating assets is established[79] "].

Unbundling Generation Assets

As part of their strategic planning to unbundle generation assets, most New York PUCs/IOUs determined that their core businesses did not include operating generating assets in a deregulated environment. New York's PUCs/IOUs had the choice[80] to either retain their generation

assets in a subsidiary non-regulated company [IPP] or to divest themselves of those assets[81].

Sales Of New York Generation Assets: 1999-2001

Following these policy developments, sales of electric generating stations began to occur[82]. In New York during the period 1999-2001, purchasers entered the market and bought existing generating facilities[83], including the purchase of Bowline and Lovett in 1999[84]. There were no sales of generating stations in New York State in 1997 or 1998[85].

The Creation Of NYISO

On December 1, 1999, the New York Independent System Operator [" NYISO "] opened its markets and took over operation of the State's bulk electric transmission system[86] from the New York Power Pool [" NYPP "][87].

NYISO Markets

The NYISO established several types of energy markets[88], many of which did not previously exist[89] and all of which were essential for the operation of a deregulated yet reliable market for wholesale

electricity[90]. " [T]he creation of the ISO has established several types of markets...The primary markets that were created by the ISO are the installed-capacity market and the energy market. There are two primary markets: the day-ahead market[91] (and)... the realtime market[92]...there are ancillary service markets for other electric commodities that are required to provide safe and reliable electric systems...So there are services provided to make sure that on an instantaneous basis, generation can be put on line to assure that the balance of demand for energy and supply of energy are in equilibrium...there are other services...there is the Black Start capability...The ISO...is the entity responsible for facilitating these markets and overseeing the markets. And it establishes the level of reliability and level of Black Start units that are required in the system...(The ISO) is the entity responsible for assuring that there are sufficient spinning reserves and it conducts the markets or facilitates the markets associated with that commodity...there are two basic markets (for capacity payments) ...There is the bilateral market...to parties entering into a contract to purchase...capacity...the ISO has a series of capacity auctions that it conducts "[93]

The NYISO Market Data Exchange

In addition to numerous services the NYISO provides an extraordinary amount of information online in its Market Data Exchange[94].

How NYISO Works To Meet Demand For Electricity On A Daily Basis

Dr. Makovich, in response to a question posed by the Court regarding the bidding process for wholesale electricity, described how NYISO works. " With the (NYISO) in place there is actually a routine function right now where all the suppliers (of electricity) put in their bids, what price you are willing to supply power and one of the jobs in (NYISO) is to collect them all, figure out who they want to be running at any point in time and they typically do this a day ahead. So they ask for all the bids for the next day and they estimate what they think demand is going to be the next day. They come up with this plan of who is going to run and who is not and what the market clearing price is likely to be. Then as the day happens it may be that anticipated supply and demand is a little bit different from what they planned the previous day. They have to now look for who (has) got that marginal cost, who would be the most economic one to go for based upon the bid they put in. That kind of a frequent rebidding is what goes on in the market place " The Court: Is that done every day for the entire state? The Witness: Yes. The Court" Where is the physical location of this...stock market, if you will, of electricity? The Witness: That all comes together in a center in Albany, I believe. Q. Did New York Power Pool serve the same function before NYISO? A. The New York Power Pool did something different in that people would provide their marginal cost information

and they would then create a plan of dispatch based upon those marginal costs. It's a similar thing but not exactly the same. "[95]

When Did Deregulation Officially Start In New York State?

When was the market for wholesale electricity and generating facilities in New York State sufficiently developed and of such a character that observations of that market could reasonably and reliably predict the future market for such commodities? At what point in time did it become appropriate to use an income and sales comparison[96] approach [in addition to the cost [RCNLD] approach] in valuing electricity generating facilities such as Bowline? [See e.g., Matter of Niagara Mohawk Power Corp. v. Town of Moreau Assessor, 307 A.D. 2d 669, 762 N.Y.S. 2d 847 (3d Dept. 2003)(" In the mid-to-late 1990s, however, the industry underwent deregulation and, according to evidence presented in the record by petitioners, a market began to emerge for the purchase and sale of electric generating facilities. Petitioners argue that the emergence of such a market provides a framework for a shift in the paradigm for valuing utility properties such as those implicated in these petitions. Given the procedural posture in which the issue has reached us, we need not engage in a protracted discussion of the ultimate merits of the purported arguments regarding valuation of electric generating facilities in the age of deregulation...*They should thus be afforded an opportunity to attempt to convince the trier of fact*

of the existence of a such a market. If successful...they can further attempt to persuade Supreme Court that...the income method best reflects actual value [emphasis added] ")].

The Petitioners and Respondents have devoted considerable energy in answering these questions[97]. The Petitioners have even sought to enlist the " support " of the Respondents' engineer, George E. Sansoucy, and appraiser, Glenn Walker, by eliciting seemingly inconsistent statements regarding the existence of a pre-NYISO market in their prior appraisals prepared for other generating facilities in New York, Maine, Michigan and Ohio[98]. Both Petitioners [1998-2003] and Respondents [2000-2003] use an income [DCF] approach to valuation but differ in terms of when such an approach can be used, i.e., January 1, 1998 for Petitioners or January 1, 2000 for Respondents.

Petitioners' Contentions

The Petitioners contend that prior to 1997 a wholesale market existed that was both liquid and based on publicly available information[99]. Wholesale transactions were reported to the New York Power Pool [" NYPP "] which established a dispatch scheme based on marginal cost. Although the FERC and P.S.C. sought to develop a fully competitive market to set electricity prices, that market has never been totally devoid of regulatory oversight[100]. Therefore, the wholesale electricity

market has not been " deregulated " but rather was re-structured to function similar to a " stock market "[101]. The NYISO was the natural progression to greater facilitation of wholesale market activity[102]. The NYISO strengthened a pre-existing wholesale market[103].

Respondents' Contentions

The Respondents contend that the time period 1995 to 1999 encompasses what the Petitioners refer to as a " paradigm shift " in the economic environment in which facilities such as Bowline operate. During that period, however, Bowline was owned and operated as a rate-regulated electricity generation station . Such facilities have historically been deemed " specialties " to be valued using the cost method [RCNLD]. In the summer of 1999, in furtherance of P.S.C. policies intended to encourage divestiture and to alter the structure of electricity markets in New York State, Bowline was sold to Petitioners. Since that time Bowline has operated within the NYISO in an increasingly deregulated market. The Petitioners' contention that valuation methodologies other than RCNLD were permissible as early as 1998 required proof of sufficient sales in New York State[104] of generating facilities in 1998. The Petitioners have failed to prove that there was a sufficiently liquid and competitive market for wholesale electricity to generate reliable market data to support an income approach for the tax years 1995 to 1999. The Petitioners have failed to distinguish between pre-1999 market data generated by competitive sales as opposed to regulated

transactions. The Petitioners have failed to explain how data and market characteristics of the regulated market can reasonably provide the foundation for forecasting into the unregulated market, particularly, when the very purpose of deregulation was to alter the nature of the market. The Petitioners have failed to quantify the degree to which the market for electric commodities [including the prices paid for such commodities] prior to NYISO consisted, primarily, of competitive wholesale transactions or whether such transactions were those occurring in a regulated market.

The Market Started On December 1, 1999

Stated, simply, the Court finds that based upon the credible evidence the beginning of deregulation of the market in New York State for wholesale electricity and the sale of generating facilities, for tax certiorari purposes [i.e., when was it appropriate to use all three valuation methodologies [See e.g., Saratoga Racetrack, Inc. v. Williams, 91 N.Y. 2d 639, 697 N.E. 2d 164, 674 N.Y.S. 2d 263 (1998)(" there must be no market for the type of property and no sales of property for such use ")], coincided with the opening of the NYISO on December 1, 1999. In essence, for tax certiorari purposes, there was no meaningful market for wholesale electricity and the sale of electricity generating facilities [the first such sale took place in March of 1999 with additional sales in 2000 and 2001[105]] in New York State before December 1, 1999.

Early NYISO Data Unreliable And Volatile

However, although the creation of the NYISO justified the use of the income[106] and sales comparison[107] [in addition to cost [RCNLD]] approaches in valuing generating facilities in New York State, NYISO data generated during its early years has been found to be unreliable and volatile[108] [See e.g., Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 2003 WL 211726636 (N.Y. Sup. 2003)(valuation of hydroelectric facility for tax years 2000 and 2001; " The accuracy of these opinions of value is dependent upon the data from which they were derived. It is on this point that petitioner's appraisal falters. As pointed out, the revenue forecast is mostly predicated upon data derived from the first 14 months of an emerging market [NYISO] for a commodity subject to price volatility due to the vagaries of supply and demand as well as market manipulations...There is nothing in the record that addresses the Court's concern that this relatively small sample provided an accurate precursor of the price of electricity in five or ten years. Interestingly, in the California cases [See e.g., Watson Cogeneration Co. v. County of Los Angeles, 98 Cal. App. 4th 1066, 120 Cal. Rptr. 2d 42134 (3d Dept. 2004) (" selling its power...pursuant to the power purchase agreement...Where as here, the income flow can be expected to remain stable, based on controlled pricing and assured usage, the value of the property ' can best be estimated in terms of actual income rather than imputed income "); Freeport-McMoran Resource Partners v. County of Lake, 12 Cal. App. 4th

634, 16 Cal. Rptr. 2d 428 (1993)] the income projections were predicated upon power purchase agreements rather than assumptions of revenue...Therefore, in light of this analysis the Court rejects petitioner's appraisal based on the DCF methodology since it does not appear that the ingredients of the appraisal were sufficiently in place to arrive at an accurate valuation "), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004) (" Inasmuch as the record supports Supreme Court's finding that petitioners' DCF analysis was based on unreliable price forecasts and overstated operating expenses, it was appropriate for the court to reject it and elect to use the RCNLD method ")].

What Is The Income [DCF] Methodology?

The Appraisal of Real Estate[109] defines discounted cash flow [DCF] methodology as " being appropriate for any pattern of regular or irregular income. In many markets DCF analysis is the technique investors prefer...*Investors do make forecasts and rely on DCF analysis, particularly in regard to investment grade, multi-tenant properties such as shopping centers and office buildings* [emphasis added]. In keeping with the principal of anticipation, market-supported forecasting is the essence of valuation... *(DCF) analysis can only provide accurate results if the forecasts developed are based on accurate, reliable information..*[emphasis added]." (DCF) analysis a " procedure in which a yield rate is applied to a set of projected income streams and

a reversion to determine whether the investment property will produce a required yield given a known acquisition price. If the rate of return is known, DCF analysis can be used to solve for present value of the property ".

Valuing Machinery and Equipment[110] defines DCF as a method " most frequently developed on a debt-free, net cash flow basis...This technique measures the direct economic benefits derived from ownership, in the form of future cash inflows and outflows attributed to the property, stated at their present value. Cash inflows are derived from income plus noncash expenses (depreciation expense). Cash outflows arise from future operating and general/administration expenses, future capital expenditures and any required influxes of working capital necessary to support growth and sales revenue ".

Acceptance Of DCF Methodology

Although some New York State Courts have accepted the DCF valuation methodology in cases involving public utility rate increases[111], valuing stock in closely held corporations[112] and valuing real property taken in condemnation proceedings[113], DCF methodology has yet to be accepted in valuing electricity generating facilities in New York State [See e.g., Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 2003 WL 211726636 (N.Y. Sup. 2003)(valuation of hydroelectric facility for tax years 2000 and 2001), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)(" At trial, petitioner

presented extensive appraisal evidence employing the comparable sales, DCF and RCNLD methods of valuation. Supreme Court accepted Petitioner's argument that, following deregulation of the industry, a market had developed for power facilities and, thus, they should no longer be considered specialty properties to be valued using only the RCNLD method...The first defect in petitioner's DCF approach is the failure...to use actual income based on two power purchase agreements...(Appraiser) used market rate information accumulated from November 1999 through December 2000, which Supreme Court found to be an unreasonably narrow time frame for purposes of collecting a sample in an indisputably volatile market...To the extent that petitioner urges that its DCF method must be adopted because purchasers regularly utilize it to determine the value of power plants, we need only note that such sales are of ongoing businesses where numerous factors beyond the value of the real property and generating equipment are involved...Inasmuch as the record supports Supreme Court's finding that petitioners' DCF analysis was based on unreliable price forecasts and overstated operating expenses, it was appropriate for the court to reject it and elect to use the RCNLD method ")].

Respondents' DCF Methodology Is Rejected

The recognized unreliability and volatility of NYSIO data during its early years of operation is sufficient grounds for rejecting the

Respondents' income [DCF] approach for tax years 2000-2003 since in preparing his unitization curve[114] and price duration curve[115] [PDC] the Respondents' appraiser, Mr. Walker, used actual NYISO data for the years 2000-2001[116] reflecting anomalous electricity price activity. As a result, Mr. Walker's PDC was based on abnormally high average electricity prices. This caused the dispersion in the PDC to capture extremely high electricity prices leading to an overstatement of Bowline's projected generation and generation income. By failing to adjust his DCF model, based on a comparison of projected generation with actual generation, Mr. Walker necessarily overstated generation for all thirty one
(31) years of his DCF model.

The Holding Period Of 31 Years Is Too Long

In addition, Mr. Walker's DCF approach must be rejected because his holding period was too long. Mr. Walker developed a DCF model that encompassed thirty-one (31) years of forecasting revenues and expenses. Such a " holding period " is too long, increases the risks and uncertainties of developing reasonable and realistic cash flow projections and is well beyond the holding period recommended in The Appraisal of Real Estate[117] (" The procedural steps typically include forecasting income, vacancy, operating and capital expenses...over ownership periods of 5 to 15 years. In some markets, 10 years is cited as an average or standard study period ") and Valuing Machinery and

Equipment[118] (" The above schedule represents the basic model that is used to restate the facility's actual historical operating statements and to forecast the future in a DCF analysis. The number of years included in what is called the ' specific forecast ' period is based on several factors, such as the economics of the subject industry and the economics and the physical attributes of the subject property. If the subject assets are physically very old and obsolete, the remaining life of the property may be very short...Hence, the forecast period in such a case could be very short...Generally, after the changes in net cash flow begin to stabilize (for example, after 5, 10 or 15 years)...")[119].

A Holding Period Of 20 Years Is Still Too Long

In Bass v. The Tax Commission of the City of New York, 1991 N.Y. Misc. LEXIS 89 (N.Y. Sup. 1991) the Court rejected a twenty-year (20) holding period (" Petitioner's appraiser found it necessary to go out 20 years to 2003 to stabilize cash flow...the court finds that the DCF method as employed by petitioner's appraiser is not particularly suited for valuation of this property [office building] for tax purposes. DCF must be applied with caution particularly when the analysis involves cash flow projections over a long period of time. The degree of uncertainty in long term analysis of variable cash flows limits the reliability of DCF for appraisal purposes....buyers and sellers would be

wise to look upon long term projections with caution. DCF analysis is much more convincing when used to estimate stabilized incomes within shorter time frames ")].

Petitioners' DCF Methodology

Since Bowline [post-NYISO] is an income stream it is appropriate to use the " capitalization of income method for determining the value of income-producing property " but " it is a ' method [that] can be effective only with thorough data, including accurate actual income and operating expenses of the subject properties "[Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)].

Not Infected With Unreliable NYISO Data

The Petitioners seek to avoid rejection of their DCF analysis by asserting that, unlike Mr. Walker's DCF analysis, it is not infected with the unreliable and volatile early NYISO market data. Petitioners claim that " neither Dr. Makovich nor Mr. Remsha used NYISO or pre-NYISO transactions to project electricity prices. Dr. Makovich's electricity price forecasts were based on economic fundamentals ".[120]

Petitioners' DCF Economic Fundamentals

The Petitioners' income methodology for valuing Bowline " used the DCF to look at the potential revenue streams based on historical supply and demand, as statistically reviewed (regression analysis) and projected, by...Dr. Makovich to forecast future revenues by forecasting electricity prices and capacity payments "[121]. Generation revenues arise from the production and sale of electricity into the marketplace[122] while capacity revenues are payments to Bowline for its generating capability apart from its actual production[123]. Capacity payments are intended to ensure sufficient reserve capacity in the electric grid.

The Holding Period

To apply the DCF Mr. Remsha determined a holding period (i.e., the length of time over which the future cash flow was projected under the DCF)[124] of seven years[125]. Mr. Remsha observed that by the seventh year the cash flow had sufficiently stabilized to permit an assumed long-term growth on a normalized cash flow (i.e., the seventh year was used to compute the terminal value)[126].

Short Run Marginal Costs

Dr. Makovich generated supply and demand curves, the intersection of which is the price of electricity and " occurs at a suppliers' short-

run marginal cost (' SRMC ') "[127]. The SRMC [for purposes of electric generation] is the fuel cost plus variable costs associated solely with actual generation[128]. The supply curve, then, is a compilation of the SRMC of all suppliers-ordered from lowest SRMC to the highest SRMC[129].

The Demand Curve

To project electricity prices, Dr. Makovich also constructed a demand curve starting with a base year of 1995[130] and, after adding a two percent (2%) growth factor, computed an average demand for both 1997 and 2012 (the book end years of his DCF analysis) for his projections of electricity prices for 1998 through 2003[131].

The Supply Curve

To determine the supply curve for his electricity price projections Dr. Makovich began with 1997 as a base year ranking each generating unit in New York by its SRMC computed by multiplying each unit's heat rate by its fuel and avoidable costs[132]. Dr. Makovich performed a similar analysis for 2012 by compounding the projected two (2%) percent electricity demand growth for each year from 1995 to 2012[133]. Dr.

Makovich determined the marginal fuel shares which he used to compute the average electricity price for each year[134].

The Price Duration Curves

Dr. Makovich developed price duration curves [" PDC "] as of each valuation date to determine the volatility and dispersion for each hour across the year (all 8760 hours) of electricity prices (based upon his determined supply and demand)[135]. Using Bowline as an example of how the PDC worked, Dr. Makovich testified that it was not economical to run Bowline most of the time, as its dispatch cost was too high. By the PDC Bowline was estimated to run a mere 1.4% of the time[136]. After calculating an integrated price duration curve, Dr. Makovich projected hourly electricity prices as of each valuation date in question[137].

Projected Capacity Payments

Dr. Makovich projected capacity payments for each valuation date, the premise being that a developer would not provide new generating resources unless the expected total price (energy plus capacity) covered all costs, including a competitive profit[138]. For each year in dispute Dr. Makovich evaluated market conditions to determine whether the market would have surplus capacity in any particular year, be balanced or experience a shortage of capacity in the market. For his

evaluation, Dr. Makovich included the required eighteen percent (18%) reserve[139]. In projecting capacity payments, Dr. Makovich did not rely upon the NYISO auction prices considering them to be too volatile, the data base not sufficiently large enough and otherwise statistically unreliable[140]. According to Dr. Makovich when the supply of electricity (including the required reserve margin of eighteen (18%) percent) was less that the anticipated demand, capacity payments will permit the entry of additional capacity, i.e., bringing on line a simple cycle generation station or peaking plant. As the market approaches balance or supply deficiency, the capacity payment increases to the cost of a new peaking plant, plus its fixed operation and maintenance expenses[141].

Projecting Revenue Streams, Expenses & Capital Expenditures

Petitioners' appraiser, Mr. Remsha, applied Dr. Makovich's energy and capacity price projections to compute Bowline's revenue streams for each year of the DCF holding period[142]. To receive the projected capacity payments, Bowline needed to demonstrate that it could operate at least a minimal amount to be ' available ' should a demand for its output be made[143]. Capacity payments are based on the reliability factor of a plant, while generation or energy revenue is based on the actual sale of electricity. To receive capacity payments Bowline was required to open its doors, have employees, spend money on needed improvements and be

able to run when called upon to do so. Mr. Remsha developed an opinion of Bowline's annual generation of electricity and concluded that Bowline's value was maximized between one and two percent capacity factor[144]. Bowline's primary income contributor was its capacity payment. Mr. Remsha testified that " The primary value component for the Bowling plant is the capacity payment. Without the capacity payment, it would be scrap iron "[145]. For 2003, for example, Mr. Remsha projected generation revenue of $10 million (13.1%) and projected capacity payments of 67 million (86.9%)[146]. Mr. Remsha also applied Dr. Makovich's costs for natural gas and fuel oil, both of which Bowline utilized, and computed total fuel costs for his DCF model using the lesser projected cost of natural gas or residual fuel oil for each year[147]. Mr. Remsha calculated Bowline's operating expenses starting with actual expense data at various production levels of thirteen to sixteen percent for the years 2000-2002[148]. Mr. Remsha accounted for capital expenditures that could reasonably be expected to occur during the holding period, primarily, replacements or environmental costs such as the installation of a " gunderboom " which was constructed to address entrainment mitigation for fish larvae in the Hudson River[149].

Discounting The Cash Flow

Having determined the annual income, expenses and capital expenditures for each year of the holding period, Mr. Remsha computed the annual net cash flow for each year and its present value[150]. For the

seventh year of the holding period Mr. Remsha projected the long-term growth and, then, capitalized the cash flow into the future to derive a value as of the beginning of the seventh year. The seventh year's terminal value was added to the summed six years of cash flow, which resulted in the business enterprise value which included intangible and tangible assets, as well as working capital[151]. Intangible assets and working capital were quantified and deducted to arrive at the value attributable to the real property.

The Premise Of A Pre-NYISO Wholesale Market

In creating his DCF demand curve Mr. Remsha's used a base year of 1995, and after adding a two percent (2%) growth factor, computed an average demand for 1997 and 2012, the book end years of his DCF analysis, and then projected electricity prices for 1998 through 2003. Mr. Remsha also used 1997 as his base year in creating his DCF supply curve and ranking each generating unit in New York State by its SRMC, which estimates were then used to determine marginal fuel shares for the first of his DCF bookend years.

Mr. Remsha's income [DCF] approach [both for the 1998 and 1999 valuation years and, based on the manner in which Mr. Remsha constructed his DCF analysis, for 2000-2003] was premised on the assumption that a wholesale market [sufficiently developed and of such a character that observations of that market could reasonably and reliably inform predictions about the future market for electricity commodities]

existed in New York State in 1997 and 1998, an assumption which this Court has rejected.

Reality Check

Notwithstanding that Mr. Remsha's assumptions may be inconsistent with those of Dr. Makovich[152] they are also inconsistent with reality. Mr. Remsha assumed for each year of his DCF model a capacity factor for Bowline of only 2%[153] when, in fact, the actual capacity factors for Bowline were considerably higher[154] [1995 (29%), 1996 (8%), 1997 (15%), 1998 (33%), 1999 (28%), 2000 (13%), 2001 (16%), 2002 (16%)] averaging 21%. Mr. Remsha's capacity factor for 1998 was 1% compared to the actual capacity factor of 33%[155]. When asked why Bowline operated 33% in 1998 when according to his DCF model " it would have maximized its profitability running at one percent ", Mr. Remsha suggested that it was because Bowline was operated in a regulated environment governed by the principal of rate-based pricing not maximizing profit[156]. For 2001, Mr. Remsha assumed a capacity factor for Bowline of 1% whereas the actual capacity factor was 16%. Mr. Remsha's explanation this time for the difference between his DCF model and reality was that " the subject property isn't very flexible "[157].

Petitioners' DCF Methodology Is Rejected

The Petitioners have failed to prove that there was a sufficiently liquid and competitive market for wholesale electricity to generate reliable market data to support an income approach for the tax years 1995 to 1999. The Petitioners have failed to distinguish between pre-1999 market data generated by competitive sales as opposed to regulated transactions. The Petitioners have failed to explain how data and market characteristics of the regulated market can reasonably provide the foundation for forecasting into the unregulated market, particularly, when the very purpose of deregulation was to alter the nature of the market[158]. The Petitioners have failed to quantify the degree to which the market for electric commodities [including the prices paid for such commodities] prior to NYISO consisted, primarily, of competitive wholesale transactions or whether such transactions were those occurring in a regulated market. The Petitioners' income [DCF] approach for tax years 1995, 1997-2003 is rejected.

A Proper Income Approach Should Rely Upon Actual Market Data

The Petitioners' rejection of " NYISO or pre-NYISO transactions to project electricity prices " by " applying [only] the economic fundamentals of a competitive market "[159] [premised upon a wholesale market in 1997 and 1998 which did not exist] in preparing their income [DCF] analysis is not a useful alternative when faced with unreliable

and volatile NYISO market data which the Respondents chose to rely upon. It may be, that for tax certiorari purposes [e.g., taxing authorities, taxpayers and the courts need well defined and comprehensible valuation methodologies], it is reasonable to continue using the cost [RCNLD] methodology [with appropriate modifications] until such time as NYISO market data is deemed sufficiently reliable and stable to support an income approach [whether it be direct capitalization or DCF methodologies] to value electricity generating facilities [See e.g., Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 2003 WL 211726636 (N.Y. Sup. 2003)(valuation of hydroelectric facility for tax years 2000 and 2001; DCF methodology rejected because NYISO market data unreliable and volatile; " While the direct capitalization method is useful when a property is operating on a stabilized basis, where, as here, income changes in an irregular pattern, it is less useful (citing The Appraisal of Real Estate [160]) "), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)(" Inasmuch as the record supports Supreme Court's finding that petitioners' DCF analysis was based on unreliable price forecasts and overstated operating expenses, it was appropriate for the court to reject it and elect to use the RCNLD method. While this approach must be used with caution, since it may overvalue property if insufficient obsolescence is applied...Supreme Court met this concern by adopting petitioner's own figures. Contrary to petitioner's contention, *there is nothing inherently inappropriate about this approach, as we regularly upheld it*

for the valuation of hydroelectric facilities before deregulation [emphasis added] ")].

What Is The Sales Comparison Methodology?

The Appraisal of Real Estate[161] defines the sales comparison approach as " A set of procedures in which a value indication is derived by comparing the property being appraised to similar properties that have been sold recently, applying appropriate units of comparison, and making adjustments to the sales prices of the comparables based on the elements of comparison. The sales comparison approach may be used to value improved properties...".

Valuing Machinery and Equipment[162] defines the sales comparison approach as an indication of value " by analyzing recent sales (or offering prices) of properties that are similar (i.e., comparable) to the subject property. If the comparables are not exactly like the properties being appraised, the selling prices of the comparables are adjusted to equate them to the characteristics of the properties being appraised...Like the cost and income approaches, the sales comparison assumes that the informed purchaser would pay no more for a property than the cost of acquiring a comparable property with the same utility ".

Review and Reduction of Real Property Assessments in New York[163] notes that " the foundation must be laid that the same were not too

remote in time and did not involve property too remote in location, in addition to the fact that the other properties were fairly comparable to the subject property ".

Acceptance Of The Sales Comparison Methodology

The sales comparison approach has been well accepted by New York State courts [See e.g., 860 Fifth Ave, Corp. v. Tax Commission, 8 N.Y. 2d 29, 167 N.E. 2d 455, 200 N.Y.S. 2d 817 (1960)(" it came to be realized that they furnish valuable evidence of market value if consummated between willing buyers and sellers under ordinary market conditions "); Matter of Merrick Holding Corp. v. Board of Assessors, 45 N.Y. 2d 538, 382 N.E. 2d 1341, 410 N.Y.S. 2d 564 (1978)(" Thus, though commonly the most accurate standard is provided by the sales prices of comparable properties located within the same or similar competitive area in which a parcel being assessed is located, in the absence of sufficiently reliable market data, alternative methods such as income capitalization or, when necessary, reproduction cost, may be employed...as to income producing property, income capitalization has been the preferred mode "); General Motors Corp. v. Assessor of Massena, 146 A.D. 2d 851, 536 N.Y.S. 2d 256 (3d Dept. 1989), appeal denied, 74 N.Y. 2d 604, 543 N.Y.S. 2d 397, 541 N.E. 2d 426 (1989) (failure to select appropriate comparables leads to dismissal of petition).

In the case of income producing properties [" income streams "] such as Bowline the comparable sales and income methods merge [See e.g., Matter of The New Country Club of Garden City v. Board of Assessors, 1991 N.Y. Misc. LEXIS 606 (Nassau Sup. 1991)(" In his income approach, petitioner's golf appraiser relied on comparable leases [with] generally fixed rental income on the basis of different percentages of the gross receipts from various revenue sources typically found in golf courses. Not all the leases used identical classifications of revenue, but they supported this appraiser's dichotomy of subject's gross receipts into golf revenue (i.e., golf, tennis and social fees and dues and cart and locker rentals) and departmental sales (i.e., food, beverage and golf shop sales. While most leases had minimum rent requirements...such were exceeded in almost all cases and, more importantly, the overriding percentages were the figures relied on by investors in valuing golf course properties... ")].

Income Streams: The Need For Actual Income And Expense Data

An electricity generating facility is [post NYISO] an income stream. Although Petitioners' appraiser, Michael Remsha, used a sales comparison approach for the tax years 2000-2003[164] he failed to properly treat Bowline as an " income stream " by obtaining and using actual income and expense data for each comparable sale[165] [See e.g., Reckson Operating Partnership, L.P. v. Assessor of the Town of Greenburgh, 2 Misc. 3d 1005 (West. Sup. 2004)(" The Court rejects the sales-

comparison approach...without a detailed understanding of the income and expenses of the proposed comparable sales, there is no factual basis for concluding that such sales are in fact comparable to 555 White Plains Road. Both (appraisers) agreed that a buyer of income producing property purchases an income stream. As stated in The Appraisal of Real Estate (12th ed.), Appraisal Institute, Chicago, Ill., 2001, at 419-420, " The sales comparison approach usually provides the primary indication of market value in appraisals of properties that are not usually purchased for their income producing characteristics. These types of properties are amenable to sales comparison because similar properties are commonly bought and sold in the same market. Typically, the sales comparison approach provides the best indication of value for owner-occupied commercial and industrial properties. Buyers of income-producing properties usually concentrate on a property's economic characteristics. Thoroughly analyzing comparable sales of large, complex, income-producing properties is difficult because information on the economic factors influencing the decisions of buyers is not readily available from public records or interviews with buyers and sellers. For example, an appraiser may not have sufficient knowledge of the existing leases applicable to a neighborhood shopping center that is potentially comparable to the subject. Property encumbered by a lease is a sale of rights other than fee simple rights and requires knowledge of the terms of all leases and an understanding of the tenant(s) occupying the premises. Some transactions include sales of other

physical assets or business interests. In each instance, if the sale is to be useful for comparison purposes, it must be dissected into its various components. Even when the components of value can be allocated, it must be understood that because of the complexity of the mix of factors involved, the sale may be less reliable as an indicator of the subject's real property value " (The Respondent's appraiser) acknowledged that (his appraisal) contained no financial or other economic data for any of his comparable sales. Without information on the most crucial aspect of comparability, the income stream, his sales comparison approach will be given no weight [See e.g., Matter of Blue Hill Plaza Associates v. Assessor of Town of Orangetown , Sup. Ct. Rockland Co., Index Nos. 5093/90 et al., Slip Op. dated December 23, 1994 (n.o.r.), *mod*. 230 AD2d 846, 646 N.Y.S. 2d 836 (2d Dept.1996), *lv. den*. 89 NY2d 804 (1996); Taxter Park Associates v. Assessor of Town of Greenburgh , Sup. Ct. West. Co., Index Nos. 16189/96 et al., Slip Op. dated October 8, 1996 (n.o.r.)]"].

Petitioners' Comparable Sales Methodology Is Rejected

Although Mr. Remsha attempted to measure profitability for each comparable sale in his " Market Conditions " adjustment[166] by using an electricity price/fuel price ratio, such a ratio[167] was based upon generalized data including, *inter alia*, an average NYISO daily price and a standard 10% capacity factor[168], none of which were specific to each

comparable sale. As a consequence, Mr. Remsha failed to obtain and compare the actual income stream of each comparable sale with that of Bowline. In addition, Mr. Remsha's assertion in describing his " Conditions of Sale " adjustment that " it was concluded that all of the sales reflect arm's-length transactions "[169] is unsupported by credible evidence with the exception of the sale of Bowline to SEB which this Court has found to be an arm's length transaction based upon credible evidence. For these reasons the Petitioners' sales comparison approach for tax years 2000-2003 is rejected.

What Is The Cost [RCNLD] Approach?

The Appraisal of Real Estate[170] states that " In the cost approach the appraiser compares the cost to develop a new property or a substitute property with the same utility as the subject property. The estimate of development cost is adjusted for differences in the age, condition and utility of the subject property to generate a value indication by the cost approach...In applying the cost approach, an appraiser estimates the market's perception of the difference between the property improvements being appraised and a newly constructed building with optimal utility. Generally, the cost approach supports two methods for estimating cost [i.e., reproduction cost or replacement cost using one of three methods, comparative-unit method, unit-in-place method, quantity survey method (sticks & bricks)] and three methods of estimating depreciation (physical, functional and external) ".

Valuing Machinery and Equipment[171] states " Using the cost approach, the appraiser starts with the current replacement cost of the property being appraised and then deducts for the loss in value caused by physical deterioration, functional obsolescence and economic obsolescence. The logic behind the cost approach is the principal of substitution: a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent utility ".

Acceptance Of The Cost [RCNLD] Methodology

The cost [RCNLD] approach has been well accepted by New York State Courts [Piazza v. Town Assessor, 16 A.D. 2d 863, 228 N.Y.S. 2d 397 (4th Dept. 1962)(distinction between functional and economic obsolescence); Guilderland Center Nursing Home v. Town of Guilderland Board of Assessment Review, 195 A.D. 2d 902, 600 N.Y.S. 834 (3d Dept. 1993)(an expert familiar with construction costs is needed on the issue of reproduction or replacement costs; " Key to calculating value using reproduction cost method is a working knowledge of current construction costs and methods and the ability to perform a detailed analysis of the structure being appraised ")], particularly, in valuing electricity generating facilities [see e.g., Matter of Erie Boulevard Hydropower L.P. v. Town of Ephratah Board of Assessors, 2003 WL 211726636 (N.Y. Sup. 2003)(valuation of hydroelectric facility for tax years 2000 and 2001), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)(" While this approach [RCNLD] must be used with caution,

since it may overvalue property if insufficient obsolescence is applied...Supreme Court met this concern by adopting petitioner's own figures. Contrary to petitioner's contention, *there is nothing inherently inappropriate about this approach, as we regularly upheld it for the valuation of hydroelectric facilities before deregulation* [emphasis added](see Matter of Niagara Mohawk Power Corp. v. City of Cohoes Bd. of Assessors, 280 AD 2d 724 (3d Dept. 2001) "); Matter of Consolidated Edison Company of New York v. City of New York, Index No. 8564/98 (Kings Sup. 2004)(Slip. Op. pp. 5-6)(Hon. Michael L. Peace)(" Historically, electric generating facilities (prior to deregulation) have been held to fall into a narrow category of ' specialty property ' which was required to be assessed using the RCNLD method of valuation...During the tax years under review [1994-1998] both appraisers found that the subject property was speciality property and stipulated at trial that the RCNLD method is the appropriate method of valuation in these proceedings "); Matter of TBG Cogen Partners v. The Assessor of the County of Nassau, New York Law Journal, August 15, 2001, p. 21, col. 3 (Nassau Sup. 2001)(J. Winslow)(" The property owners...contend that the property was over-assessed for the tax years 1994 through 2000. The property...is improved with a co-generation plant that was constructed in 1998 to produce steam and electricity from natural gas-powered turbines. Grumman/Northrup-Grumman has been the Plant's sole purchaser of steam for the Plant's entire working life to date...the parties agree that this is a ' specialty property ' and that...(RCNLD) is the proper method of valuation for determining true

market value...The Court is being asked to consider the nature, applicability and extent of depreciation for functional and economic obsolescence on the value of specialty property ")].

Determining The RCN: Trending And Sticks & Bricks

In applying the RCNLD methodology, the appraiser first calculates reproduction cost new ("RCN") which " is the estimated cost to construct, as of the effective appraisal date, an exact duplicate or replica of the building with the same materials, construction standards, layout and quality of workmanship and embodying all the deficiencies superadequacies and obsolescence of the subject building" [The Appraisal of Real Estate[172]]. Both Respondents' engineer, Mr. Sansoucy, and Petitioner's engineer, Mr. Crean, used the trended original cost method [" TOC "] of determining RCN. TOC trends up the original costs for each surviving capital expenditure by applying a cost translator from the Handy Whitman Public Utility Construction Index (North Atlantic Region) [" Handy Whitman Index "][173]. While both engineers used the TOC to compute Bowline's RCN, Mr. Crean also used the quantity survey method [" sticks & bricks "][174].

Petitioners' Cost [RCNLD] Methodology

Calibrating The Handy Whitman Index To Rockland County

To determine if the Handy Whitman Index was appropriate for local use, Mr. Crean investigated the rate of change in labor and material costs that were incurred in Rockland County over time. He then compared the rate of change in these costs, as measured by the Handy Whitman Index, to the rate of change of similar construction costs for Rockland County. He accomplished this by relying on a study by the United Engineers and Constructors along with the Energy Economic Data Base of the Department of Energy[175]. He broke down the reported costs for labor, boilers, fans, turbines and condensers by FERC accounts to set up a comparable cost inflation model. The labor rates were figures that Mr. Crean obtained from labor unions in Rockland County[176].

For the non-labor components, Mr. Crean indexed actual costs from 1995 to 2003. He measured the trends for each category, and then computed a weighted average trend for all categories. The annual increase for all categories taken together for 1995-2003 was calculated to be 2.3% per year[177]. According to the Handy Whitman Index the same annual rate of change was 2.9%. Mr. Crean reported his results to Mr. Remsha who determined that although there was a slight difference between the two figures, it was reasonable to use the Handy Whitman Index for his TOC analysis[178].

Sticks & Bricks Methodology

In addition to using the TOC method Mr. Crean determined the RCN using the sticks & bricks methodology[179]. Mr. Crean costed out the construction costs for generating stations over a period in excess of twenty years. He computed the exact quantities, costs of material, labor costs, equipment costs, overhead, and applicable indirect costs as of each year in question[180].

Components Of Cost Model

The purpose of Mr. Crean's cost model was to determine the material costs for the components, the man hours to construct or erect the components, apply the determined crew rate, compute the labor cost, and add the material costs and the labor costs together to determine the total direct construction costs[181].

Oil Fired Boiler

Mr. Crean next estimated the man hours necessary to erect an oil-fired boiler of the same size as Bowline, which he determined to be 593,000 man hours[182]. He multiplied the crew rates by the man hours to compute the total direct labor costs. The material costs were then added to the direct labor costs to reach a total project cost.

Turbine Generator Package

Mr. Crean also computed the RCN for two turbine generator packages. Again, he determined the material cost and added that figure to the total labor cost to reach the total project cost. Mr. Crean testified that he used the same approach for each year in question, for both Bowline Units 1 and 2[183].

Applicable Direct Costs

Having determined the labor and material costs, and the resulting total project direct costs, Mr. Crean computed the applicable indirect costs. He determined that there were two forms of indirect costs, i.e., construction and project costs. For both Bowline Units 1 and 2 Mr. Crean totaled both the direct and indirect costs to compute the total project costs. Mr. Remsha concluded that Mr. Crean's computed sticks & bricks RCN figure was a more detailed, more conservative and a more exact measure of the RCN[184].

Additional Indirect Costs

Mr. Remsha also determined that additional indirect costs [not included in Mr. Crean's indirect costs] were required, which included

the costs incurred during construction, i.e., interest [“ IDC “], insurance and property taxes.

Interest During Construction

Mr. Crean provided Mr. Remsha with a cash flow schedule of IDC payments for each of the, approximately, sixty-six months during which a generating facility would be constructed. Mr. Remsha allocated Mr. Crean’s determined RCN over the cash flow schedule by applying Mr. Crean’s monthly percentages. Mr. Remsha adjusted the RCN dollars allocated for each month of the schedule to account for the effect of inflation. For the interest applied during the loan periods, Mr. Remsha determined that a three-year treasury bill rate best reflected corporate interest during construction. He weighted each year’s interest rate by the percent of investment made that year, and computed a weighted interest composite rate of 5.5%[185].

Insurance Costs

The computation of the cost of insurance was based on the magnitude of capital assets needed to be insured for each year of the construction project. Mr. Remsha adjusted his insurance costs for time over the construction period by applying the Handy Whitman Index and finding that an annual insurance rate of 0.3% was appropriate[186].

Property Taxes

Property taxes were added to the construction costs for a given year based on the actual effective property tax rate for each valuation date of four [4%] percent[187].

Total Reproduction Costs

The total reproduction cost for each year was based upon the following formula: RCN + insurance + IDC + property taxes. The total reproduction costs were determined to be:

``

Year	RCN
1995	**$1,050,595,000**
1997	**$1,064,756,000**
1998	**$1,103,099,000**
1999	**$1,134,946,000**
2000	**$1,158,699,000**
2001	**$1,165,745,000**
2002	**$1,185,066,000**
2003	**$1,222,746,000**

Respondents' Cost [RCNLD] Methodology

Mr. Sansoucy determined the RCN for Bowline by using TOC.[188]. He testified that TOC was appropriate for the Bowline plant because the plant has not seen significant change, alteration or improvement since its original construction[189]. Mr. Sansoucy stated that the "soft cost" portion of the original plant costs, such as Allowance for Funding During Construction [" AFUDC "] was generally identifiable in the plant's original cost records, so that the "hard" costs could be isolated and trended, and AFUDC calculated separately.

Original Hard Costs

Mr. Sansoucy first identified the original "hard" costs, by year of installation, for each type of property at the plant, such as structures, turbines, boilers and other improvements, using FERC's Uniform System of Accounts.

Trended Reproduction Costs

Mr. Sansoucy then applied the trending factors in the Handy Whitman Index to those costs to calculate the trended reproduction costs for the various components in the plant[190]. After those hard costs were trended, Mr. Sansoucy added the AFUDC to determine the RCN.

WACC

He did so by identifying the time for construction, the cash flow needed, and the weighted average cost of capital [" WACC "] to fund that cash flow. The WACC for 1995-1999 was calculated by using short term and long term rates for the plant from the FERC form 1 for the various years.

Calculating RCN

Mr. Sansoucy then added the AFUDC to the trended costs to determine the total RCN for Bowline[191]. Mr. Sansoucy used the same methodology for calculating the RCN for the years 2000-2003. He identified original property costs, trended them, and then added AFUDC[192].

Competing RCNs Only 10% Apart

Although Mr. Sansoucy's TOC RCN calculations for each tax year at issue were lower than Mr. Crean's sticks & bricks RCN values, they were within 10% of Mr. Crean's values.

Respondents' RCN Rejected As Unreliable

Although Mr. Sansoucy previously opined that various deficiencies precluded the sole use of TOC[193], he did not address any of his prior concerns in his current Bowline RCN methodology. For example, in Niagara Mohawk Power Corporation v. Town of Bethlehem, 225 A.D.2d 841, 639 N.Y.S.2d 492 (3d Dept. 1996), Mr. Sansoucy expressed his concern that unidentified intangible business assets in the original cost records can be trended forward thereby providing an erroneous number[194]. However, although Mr. Sansoucy stated that Mr. Walker verified total plant costs[195] there was no segregation in their appraisal report of tangible versus intangible business assets.

Disallowed Capital Costs

Mr. Sansoucy also expressed his concern in Bethlehem, supra, that the original cost records being trended may not contain all the costs such as capital costs disallowed by the regulatory agencies or by an agreement in rate cases. Hence, he opined that the unreliability of the index itself becomes compounded by the convoluted nature of the original cost records. Yet, Mr. Sansoucy did not determine whether the original costs contained disallowed capital costs[196] or were impacted by an "agreement in rate cases."[197]

Failure To Investigate

Clearly, Mr. Sansoucy did not investigate O&R's original cost data. Neither he nor Mr. Walker appeared to know what was actually represented by any particular original cost other than by referring to the FERC uniform system of account numbers. In fact, neither had any knowledge of whether O&R accurately recorded its costs. Mr. Sansoucy testified that he could not identify the individual components or conduct a sticks & bricks RCN[198]. Mr. Sansoucy stated in his report that " The quantity survey, comparative-unit and unit-in-place methods of estimating reproduction costs were considered and rejected due to lack of unit cost information for site-specific and unique components similar to those that comprise the station."[199]

Ignoring Relevant Drawings & Prints

Mr. Sansoucy failed to analyze certain drawings and prints such as heat balance diagrams, architectural drawings, drawings of Bowline Units 1 and 2 set forth on a CD-Rom, mechanical drawings as well as a complete set of Plant Data Records, even though he admitted having received them[200].

Failure To Verify

In applying the TOC methodology, neither Mr. Sansoucy nor Mr. Walker verified that the trended original costs reflected actual construction costs as of Bowline's valuation dates. For example, neither expert ensured that the trending indices accurately reflected inflationary trends for the construction of a central steam generating station or that the trended original costs accurately reflected market construction costs as of each respective valuation date [See e.g., Niagara Mohawk Power Corporation v. Town of Bethlehem , supra, at 844 (" petitioner's appraiser erroneously relied on the Handy-Whitman Index of Public Utility Construction Costs in trending the vintage costs to determine the reproduction cost new...the index was not applicable because it reflected only average national trends and not necessarily local trends. Notably, petitioner's appraiser testified that he did not know whether the trends recited in the index applied to the Bethlehem area; he also indicated that he did not check local experience.")[201].

What Is A Generic Steam Turbine?

The only verification was Mr. Walker's reduction of Mr. Sansoucy's RCN to a dollar per megawatt figure that he compared to a United States Department of Energy's Energy Information Administration's [" EIA "] estimate to construct a " generic steam turbine ". Mr. Walker did not

determine exactly what comprised the EIA's " generic steam turbine ", how the cost was derived by the EIA, what recent construction expenditures for a steam turbine plant it relied upon, and whether the EIA estimate reflected the actual construction costs of an oil/steam generation station as of each valuation date.

Failure To Review Data Base

Unlike Mr. Crean, neither Mr. Walker nor Mr. Sansoucy reviewed a database of actual constructed generation facilities to verify the trending of O&R's original costs by the Handy Whitman Index[202].

No Construction Experience

It is important to note that neither Mr. Walker nor Mr. Sansoucy have ever built or participated in the construction of an oil/gas steam turbine generation station [See e.g., Tennessee Gas Pipeline Company v. Town of Sharon, 298 A.D.2d 758, 749 N.Y.S.2d 106 (3d Dept.)
(" Typically, then, an appraisal of a specialty property will be conducted by an architect, engineer, builder or other professional with expertise in the relevant construction methods and costs...Petitioner's appraiser...is registered as an engineer in three states, although he acknowledged that he has never practiced as a professional engineer...[h]e readily admitted that he is unfamiliar with local

building costs and could not independently verify the construction costs used in his own appraisal. Given these limitations, we cannot say that Supreme Court erred in concluding that petitioner's appraiser did not possess sufficient knowledge of current construction costs to determine the value of petitioner's pipelines.")]. While Respondents' engineer may have constructed sewer lines and re-built low head and small hydroelectric stations[203], or appraised other fossil fuel generation property, neither Mr. Walker nor Mr. Sansoucy have ever been engaged to design, cost out or construct a new oil/gas generation station[204].

Failure To Verify Original Costs

Mr. Walker, assisted by Mr. Sansoucy, relied solely upon the TOC method to determine RCN value, even though Mr. Sansoucy was unaware of what the original costs represented and he failed to verify those original costs to ensure that the TOC method was an accurate measure of current construction costs.

For all of these reasons, this Court rejects the Respondents' RCN methodology and accepts Mr. Crean's RCN methodology.

Depreciation

Once the RCN has been established, a deduction must be made for all three forms of depreciation, i.e., functional obsolescence, economic

obsolescence, and physical depreciation [See e.g., Allied Corp. v. Town of Camillus, 80 N.Y.2d 351, 590 N.Y.S.2d 417 (1992); Niagara Mohawk Power Corp. v. Town of Geddes, 239 A.D.2d 911, 659 N.Y.S.2d 632 (4th Dept. 1997)]. In applying the cost approach, it was incumbent on both appraisers, Mr. Remsha and Mr. Walker, to carefully consider all forms of depreciation [physical, functional and economic][See e.g., Consolidated Edison Company of New York, Inc. v. City of New York, Index No. 8564/98 (Kings Sup. Oct. 5, 2004) (Hon. Michael L. Pesce)(" The appraiser then calculates the elements of depreciation, which include amounts attributable to functional depreciation and physical depreciation, and deducts these elements from reproduction cost new to arrive at a net value for the improvement (Matter of City of New York [Salvation Army], 43 N.Y.2d at 516; Matter of Onondaga County Water District v. Board of Assessors of Town of Minetto, 39 N.Y.2d 601 (1976)...")].

Functional Obsolescence

" Functional obsolescence is defined as the loss in value or usefulness of a property caused by inefficiencies or inadequacies of the property itself, when compared to a more efficient or less costly replacement property that new technology has developed. Symptoms suggesting the presence of functional obsolescence are excess operating (i.e. manufacturing) cost, excess construction (excess capital

cost), over-capacity, inadequacy, lack of utility, or similar conditions."[205]

Petitioner's Analysis: Functional Obsolescence For Excess Construction Costs

The first deduction made by Mr. Remsha was for functional obsolescence due to excess construction costs which is defined as: " Functional obsolescence due to excess capital costs results from improvements and changes in design, materials, layout, product flow, construction methods, and equipment size and mix. Essentially, these are the improvements that make the new technology more desirable."[206]

Principal Of Substitution

Basic to the cost approach is the principle of substitution which " affirms that a prudent buyer would pay no more for a property than the cost to acquire a similar site and construct improvements of equivalent desirability and utility without undue delay " [207] [See e.g., Consolidated Edison Company of New York, Inc. v. City of New York, Index No. 8564/98 (Kings Sup. Oct. 5, 2004) (Hon. Michael L. Pesce)(" the principle of substitution, to wit, that the cost of producing electricity at the subject facility was greater than the cost of producing electricity at a substitute combined-cycle, gas turbine

[CCGT] facility of similar capacity ”)].

Bowline’s Functional Obsolescence

Since the cost approach is based on the concept of substitution, it was Mr. Remsha’s view that no one would pay to reconstruct the present aged Bowline generating station if they could build an equivalent and more efficient modern facility for a lower capital cost. Hence, Mr. Crean conducted a replacement study based on his actual experience of constructing modern generation facilities. From that study, Mr. Remsha determined that Bowline was functionally obsolete[208].

Quantifying Excess Construction Costs

To quantify the excess construction costs, Mr. Remsha computed the difference between the replacement cost of a state of the art generating facility and the reproduction cost of Bowline[209].

State Of The Art CCGT

It was Mr. Crean’s view that the technology and plant of choice to be used in his replacement study was the Combined Cycle Generating Turbine [“ CCGT “]. A CCGT is less expensive to build, takes less time to construct, is more efficient, consumes less capital and has lower

operating expenses when compared to similar costs of a reproduction of Bowline[210].

Engineering Procurement Contract

To construct a modern CCGT facility, Mr. Crean used the modern contracting method of Engineering Procurement Contract [" EPC "][211]. By this method the owner furnishes the contractor with a request for a power plant of a defined output. The contractor performs all engineering, design, component procurement and construction. At the end of this process the contractor turns over a fully operational facility to the owner[212].

Costs Of A Replacement CCGT

Mr. Crean developed a capital cost for each year in question, a cash flow schedule and performance attributes for the CCGT[213]. He developed the non-fuel and maintenance costs for the CCGT[214], and used Rockland County labor rates for his labor cost component[215]. For material costs, Mr. Crean obtained actual price quotes[216].

Using The Costs Of A Known Facility

To cost out his CCGT replacement plant, Mr. Crean relied upon a Pennsylvania project that he updated for New York labor rates and material price changes from January 1, 1995 to January 1, 2003. He also added costs for putting the CCGT on piles which would be required for the Bowline site. Mr. Crean testified that it was standard procedure to use the costs of a known facility and to modify those costs to meet the requirements of the subject property[217].

Similar to his reproduction cost new model, Mr. Crean obtained material prices, estimated man-hours, and applied a labor crew rate to determine labor costs[218]. The material and labor costs were summed to compute the total project costs[219]. Mr. Crean also determined that 27,000 man hours would be needed to install a Combustion Turbine [" CT "]. He multiplied that number by the applicable crew rate, added his total labor and material costs, and computed the total direct project costs[220].

Indirect Costs

Mr. Crean then used the same methodology, wage rates and percentages to compute what the indirect costs for the replacement plant (meaning the construction and project costs) as he had done for the

reproduction costs[221]. He then provided the replacement study to Mr. Remsha.

Total Replacement Cost

Applying the same approach used in determining RCN, Mr. Remsha added insurance, interest during construction and property taxes to the replacement cost determined by Mr. Crean, for each year of construction, resulting in the total replacement cost[222]. The total functional obsolescence for excess construction costs was determined by Mr. Remsha for each year to be the difference between the RCN and the Total Replacement Cost[223].

Respondents' Analysis: Functional Obsolescence For Excess Construction Costs

Respondents' Appraiser, Mr. Walker, considered whether there was incurable functional obsolescence associated with the facility that should be deducted from the replacement cost new[224]. In his analysis, Mr. Walker measured this obsolescence by determining whether the reproduction cost new estimate exceeded the replacement cost estimate for a functionally equivalent oil/gas fired central steam plant[225].

Comparing Bowline

To determine whether functional obsolescence from excess construction costs existed, Mr. Walker compared Bowline's costs to the cost characteristics of a replacement plant with an oil/gas central steam station with 1200 MW of total generating capacity and the ability to run on gas and residual fuel oil[226].

Dollars Per Megawatt Costs

First, Mr. Walker took the RCN value developed by Mr. Sansoucy and determined the dollar per megawatt [" $/MW "] cost for the reproduction of Bowline on each valuation date. Mr. Walker then used the comparative unit method to develop the construction costs of an equivalent or generic oil/gas-fired plant, using unit cost measures in $/MW published by the Energy Information Administration[227] [" EIA "] for a plant of " equivalent desirability and utility "[228]. In assessing functional obsolescence, Mr. Walker identified unit cost measures published by the EIA to construct an oil/gas fired central steam station similar to the Bowline facility. He compared the $/MW construction cost of the reproduction of Bowline with the $/MW cost of construction of a replacement oil/gas fired central steam station using the same fuels. That comparison showed that there is no excess construction cost associated with reproduction of the Bowline facility when it is compared

to the cost of an equivalent replacement and therefore no functional obsolescence from excess construction costs[229].

Failure To Verify EIA Construction Costs

Mr. Walker testified that not a single steam turbine plant [oil, gas or coal] had been constructed in New York since 1974[230]. He did not undertake a national study of oil/gas stations as he had done in his earlier appraisal of the Wyman Station[231] in Maine. He used the construction cost of a hypothetical generic steam turbine plant as published by the EIA[232]. Mr. Walker was not able to describe how the EIA determined its construction costs, what assumptions were used, what actual recent plant construction it was based upon, or the difference between the " first of a kind " and the construction costs listed for more mature plants or technology[233]. Although he opined that the EIA costs were reasonable he conceded that he did not conduct a study in his report to reach that conclusion.

Stale Data & Inapplicable Scaling Factors

In addition, EIA stopped publishing construction costs for oil/gas generic steam turbine stations in 2000. Yet, Mr. Walker continued to use EIA's 1998 dollar projection[234]. He ignored the regional multiplier

for New York and applied a scaling factor that applied to a coal station[235].

Comparing Old Generating Plants

To compute functional obsolescence, the Respondents objected to the Petitioner's analysis of modern technology and modern generating facilities, and Mr. Walker claimed that he was required to use old generating plants as a comparison base to compute functional obsolescence[236].

Failure To Use A Modern Facility

Mr. Walker failed to use a modern facility as a measure of functional obsolescence, even though he opined that the CCGT with heat recovery steam generation [" HRSG "] was the plant of choice during the years in question[237].

Contradictions

Mr. Walker contradicted himself, however, by measuring economic obsolescence in using a modern CCGT plant as the comparison base[238].

Respondents' Analysis Of Functional Obsolescence Rejected

This Court rejects Respondents' comparison of the RCN of Bowline to the construction cost for a generic oil/steam turbine. The Respondents' analysis of functional obsolescence due to excess construction costs is erroneous. The Court accepts the Petitioner's comparison of Bowline with a modern CCGT facility as well as their analysis of functional obsolescence due to excess construction costs to the extent modified below.

Petitioners' Analysis Of Functional Obsolescence Accepted But Modified

Although this Court accepts the Petitioners' analysis of functional obsolescence due to excess construction costs, it is compelled to make certain modifications based upon a review of the evidence.

Summertime Needs Require Greater Capacity

Mr. Remsha testified that Bowline's total generating capacity is 1200MW and its highest demand for electricity is during the summer[239]. Mr. Crean stated that during the summer the hypothetical CCGT does not have as much total generating capacity as Bowline. For example, the standard CCGT design [" Design 7221 "] available for the 1995 valuation year had nearly 20% less generating capacity than Bowline in

the summer[240]. The standard CCGT designs available for 1997 [" Design 7231 "] and 1998-2003 [" Design 7241 "] had 10% less generating capacity than Bowline during the summer[241].

Coolers & Chillers

To rectify this difference in capacity Mr. Crean stated that additional construction such as an evaporator cooler and " chillers on the front end of the combustion turbine "[242] would be needed to bring the CCGT up to Bowline's generating capacity. Mr. Crean admitted that the equipment cost alone for even a single chiller would be " in the neighborhood of 15 or 20 million dollars " with the evaporator cooler equipment " in the neighborhood for each gas turbine of $400,000."[243] Moreover, adding such equipment to the hypothetical plant would entail not only the equipment cost, but attendant labor and indirect costs. Consequently, the total costs of bringing a CCGT substitute up to Bowline's total summer generating capacity are not part of the Petitioners' proof[244].

Calculating The Cost Of Additional Construction

However, in developing the cost of the hypothetical CCGT for the valuation year 1995, Mr. Crean calculated a dollar-per-KW cost of $557/KW or $557,000/MW[245]. Mr. Crean stated that for 1995, his CCGT

Design 7221 had a total summer capacity that was 215MW lower than Bowline's summer capacity [Bowline's 1200MW - Design 7221's 985MW = 215MW difference]. Mr. Crean's figure of $557,000MW can be used to obtain a rough approximation of the cost of additional construction necessary to bring the hypothetical CCGT up to Bowline's summer capacity. This can be accomplished by multiplying $557,000MW by the difference in the total summer capacity between Bowline and the CCGT Design 7221 of 215MW. The result yields an additional construction cost of $119,755,000.

Additional Construction Costs For All Tax Years

Applying this analysis for the remainder of the tax years at issue, the excess additional construction costs to bring the various hypothetical CCGTs up to Bowline's summer capacity would be as follows[246]:

CCGT Design	Year Used	Summer Output	Difference From Bowline
7221	1995-1996	985MW	**215MW**
7231	1997-1998	1068MW	**132MW**
7341	1999-2003	1092MW	**108MW**

Year	Dollar-Per-MW Cost per Year
1995	**$557,000/MW**
1997	**$520,000/MW**
1998	**$531,000/MW**
1999	**$567,000/MW**
2000	**$583,000/MW**
2001	**$595,000/MW**
2002	**$551,000/MW**
2003	**$562,000/MW**

Year		Additional Construction Cost
1995	$557,000/MW x 215MW =	**$119,755,000.**
1997	$520,000/MW x 132MW =	**$68,640,000.**
1998	$531,000/MW x 132MW =	**$70,092,000.**
1999	$567,000/MW x 108MW =	**$61,236,000.**
2000	$583,000/MW x 108MW =	**$62,964,000.**
2001	$595,000/MW x 108MW =	**$64,260,000.**
2002	$551,000/MW x 108MW =	**$59,508,000.**
2003	$562,000/MW x 108MW =	**$60,696,000.**

Functional Obsolescence Costs

When these additional construction costs are added to Mr. Crean's construction costs for each tax year at issue and then subtracted for the RCN, the functional obsolescence for excess construction costs for each year is as follows:

Year	Functional Obsolescence for Excess Construction Costs
1995	**$200,930.000.**
1997	**$270,707,000.**
1998	**$274,836,000.**
1999	**$244,001,000.**
2000	**$248,323,000.**
2001	**$250,647,000.**
2002	**$330,009,000.**
2003	**$353,084,000.**

Physical Deterioration [Depreciation]

Physical deterioration is " the loss in value or usefulness of a property due to the using up or expiration of its useful life caused by wear and tear, deterioration, exposure to various elements, physical stresses, and similar factors...Deterioration or depreciation is curable when it is economically feasible to remedy it, because the resulting increase in utility and value is greater than the cost to cure. Deterioration or depreciation is incurable when it is not economically feasible to remedy it."[247]

Respondents' Analysis: Physical Depreciation

Incurable Physical Depreciation

Mr. Sansoucy identified and quantified the incurable physical depreciation for each of the valuation years. He estimated incurable physical depreciation for Bowline by using the age-life method which is the ratio of a property's " age " to its " life."[248]

Curable Physical Depreciation

Mr. Walker determined curable depreciation for Bowline[249]. In developing curable physical depreciation, Mr. Walker identified the capital expenditures made in the three years prior to each valuation date. He then added these to arrive at an amount for the curable physical depreciation for the items that should be replaced around each valuation date[250]. Mr. Walker then subtracted Mr. Sansoucy's incurable physical depreciation figures from the RCN for each year, along with the amounts for curable physical depreciation.

Respondents' Analysis Of Physical Depreciation Rejected

Mr. Sansoucy testified that after reviewing Mr. Walker's curable physical depreciation and when calculating the incurable physical

depreciation, he used Bowline's chronological age noting that Bowline's effective age was the same as its chronological age[251]. However, Mr. Sansoucy's determination that Mr. Walker's curable physical depreciation equated effective age with chronological age was contradicted by his weighted average age, which demonstrated that Bowline's effective age was 1975, as opposed to 1972 when Unit 1 was completed and 1974 when Unit 2 was completed[252].

Class Lives

For physical life Mr. Sansoucy testified that he determined " class lives ". He established that all original costs recorded in FERC Account 311 [structures and improvements] had a " class life " of ninety years. All other FERC accounts that comprised Bowline's real property had a " class life " of sixty years[253]. Mr. Sansoucy's basis for these two class lives was his " experience " and a two-hour inspection of the Bowline station[254]. Mr. Sansoucy did not conduct a review of national, regional, or New York State databases reporting FERC account average service lives[255]. He admitted that his own physical life sheet provided for component physical lives that were shorter than his determined class life[256].

Failure To Apply Individual Component Physical Life

Had Mr. Sansoucy applied an individual component physical life for each individual component, as opposed to " class lives ", he would have increased his deduction for incurable physical depreciation. Mr. Sansoucy's determinations of two class lives of ninety and sixty years were without any evidentiary support[257].

Retirements And Estimated Physical Lives

Mr. Sansoucy did report retirements and estimated physical lives with respect to Mirant's investments in the subject property for the years 2000, 2001 and 2002[258]. For each of those years, Mr. Sansoucy testified that what he trended for purposes of developing the RCN was devoid of retirements. Therefore, Mr. Sansoucy estimated the amount and age of retirements, by FERC account, that resulted from Mirant's investments in capital expenditures between 2000 and 2003. This constituted the only objective analysis of physical lives in Respondents' appraisal report. But Mr. Sansoucy's physical life conclusions were not supported by empirical data. The basis for his " experience " to determine physical lives of components comprising a steam turbine generation facility was never explained. The Court can only conclude that he has none.

Failure To Identify The Economically Curable

Although Mr. Sansoucy was the only engineer hired by Respondents for purposes of valuing the Bowline Station, he did not identify any components at Bowline that were economically curable. He instead left that responsibility to Mr. Walker, who was not an engineer[259]. Unlike Mr. Crean, whose experience with constructing generation stations enabled him to identify and quantify curable physical depreciation[260], neither Mr. Walker nor Mr. Sansoucy had any personal experience with constructing, operating or maintaining a central steam station. Therefore, neither were able to identify components that suffered curable physical depreciation[261]. Respondents' report was totally devoid of any list or specifically identified component, piece of equipment or machinery that was in need of repair, even though Mr. Walker testified that curable physical depreciation " is meant to represent those things that are in need of repair at or around the valuation date."[262]

What Items Needed Repair?

To compute curable physical depreciation Mr. Walker summed three prior years of capital expenditures[263]. Mr. Walker admitted that this summed amount was not the " repairs that were needed as of the taxable status date " but rather, " represented monies that had been spent prior

to the taxable status date."[264] He could not, however, identify what those " monies " had been used for.

Like Mr. Sansoucy, Mr. Walker failed to identify any items in need of repair. He did not know whether the costs used for curable physical depreciation were capital expenditures for " things in need of repair "[265], entirely new items or additions to the plant. Mr. Walker never identified any items in need of repair, let alone, compare those items to incurable physical depreciation amounts.

Hence, for all of the aforementioned reasons, this Court finds that Mr. Walker's methodology is not credible and rejects the Respondents' analysis for both curable and incurable physical depreciation.

Petitioners' Analysis Of Physical Depreciation Accepted

Average Service Lives

In determining physical depreciation, Mr. Remsha applied straight-line depreciation. He computed incurable physical depreciation for each property account by both vintage year of installation and the effective age of the FERC account. To do so Mr. Remsha applied average service lives [" ASL "] for each FERC property account. To determine the average service lives, Mr. Remsha determined the component's physical useful life by account[266].

To determine the appropriate ASL for each FERC account, Mr. Remsha investigated published information, reviewed Mr. Crean's physical assessments[267], discussed Bowline's operations and components with its manager and engineers and applied his experience[268]. Mr. Remsha reviewed the American Gas Association and Edison Electric Institute [" AGA "], the FERC Form 1 filings by O&R, Central Hudson Gas & Electric, Inc. and Consolidated Edison Company of New York, Inc[269]. Mr. Remsha's team from AAA spent several days inspecting Bowline and conducting interviews with the Bowline plant manager and engineers at Bowline.

Straight Line Depreciation

Mr. Remsha's formula for straight line depreciation was effective age/average service life[270]. Age, as determined by Mr. Remsha, was not chronological age, but effective age[271]. To compute the effective age of components, Mr. Remsha used the trended original cost data which he broke down by FERC account numbers and sub-accounts. Mr. Remsha analyzed the hundreds of separate line items comprising the Bowline's list of assets and computed the effective age as of each valuation date.

Depreciation Should Not Exceed 50%

Mr. Remsha determined that depreciation should not exceed 50% based on the premise that for a plant to operate in a safe and reliable manner it had to do so at a certain level of physical condition[272].

This Court finds Mr. Remsha's analysis for physical depreciation to be fully credible and accepts it in its entirety.

Economic Obsolescence

" Economic obsolescence [also known as 'external obsolescence'] is the loss in value or usefulness of a property caused by factors external to the asset. These factors include increased cost of raw materials, labor and utilities [without an offsetting increase in product price]; reduced demand for the product; increased competition; environmental or other regulations; or similar factors."[273]

Respondents' Analysis : Economic Obsolescence

For his cost approach in connection with the 2000, 2001, 2002 and 2003 valuation dates, Mr. Walker measured obsolescence using the income capitalization approach, by capitalizing the potential lost income

caused by imbalances between supply and demand or technological advances that result in Bowline being less efficient than other units.

For tax years 1995 through 1999, however, Mr. Walker measured economic obsolescence by determining whether a modern, technologically advanced gas-fired CCGT plant could be operated at a lower cost if such a plant had been introduced into the New York region in which Bowline operated. As a result of that analysis, Mr. Walker identified economic [external] obsolescence for the 1997, 1998 and 1999 valuation years.

Generic Steam Turbine Versus CCGT

The Court finds it curious that Mr. Walker changed the construct of his valuation methodology from the appraisal techniques he exercised in computing functional obsolescence. Instead of using an oil/gas generic steam turbine, or " comparable " aged plants, Mr. Walker, in this analysis, used a modern CCGT[274] for 1995 to 1999[275].

Thirty Percent Capacity Factor

Mr. Walker does not fully explain why he gave his CCGT a thirty percent capacity factor. He had previously stated that a CCGT was a base load plant[276]. By giving his CCGT Bowline's capacity factor [before comparing the performance of the two facilities], Mr. Walker limited or reduced the applicable economic obsolescence. He failed to

perform any analysis as to whether a brand new CCGT would even run at thirty percent capacity, or if it did, what economic obsolescence such limited running would entail[277]. Running the CCGT at thirty percent capacity rendered it inefficient and obsolete, particularly, when compared to running it at baseload[278]. Had Mr. Walker made a proper comparison between Bowline, at its capacity factor, with the expected base load operation of a CCGT, Mr. Walker's figures for economic obsolescence would have increased significantly[279].

Failure To Deduct For Economic Obsolescence

For the years 2000 to 2003, Mr. Walker did not deduct for economic obsolescence. Mr. Walker stated in his appraisal that " [t]he difference between the reproduction cost new less physical depreciation and functional obsolescence, and the value estimated using the income capitalization approach is considered external obsolescence."[280] In addition, he states that the reconciled value of Bowline indicates the existence of external obsolescence as of each valuation date. During cross-examination, Mr Walker stated that his economic obsolescence was the difference between the income value conclusion and the RCNLD for physical depreciation only[281]. However, inexplicably, for the years 2000 to 2003, Mr. Walker did not deduct for economic obsolescence in his report or errata[282]. Yet, based on Mr. Walker's cross-examination

testimony, there clearly existed economic [external] obsolescence for the years 2000 to 2003[283].

Respondents' Economic Obsolescence Analysis Rejected

Hence, for the aforesaid reasons, this Court rejects Mr. Walker's economic obsolescence analysis.

Petitioners' Analysis: Economic Obsolescence

Measuring Economic Obsolescence

Mr. Remsha applied two methods of measuring economic obsolescence: spark spread and inutility analysis[284].

The Spark Spread

The spark spread is the difference between the electricity price and the applicable fuel price, which is also known as the gross margin[285]. Mr. Remsha's comparison was based on actual historical prices. The electricity prices were NY Zone G prices as reported by Platts Megawatt Daily, and the natural gas prices were reported by the EIA for New York PUCs. Both were reported in $/MW. The computed spark spread applying natural gas prices resulted in a graphed relationship

that over time showed electric generation plant profitability based on the gross margin measure[286].

To measure economic obsolescence by the spark spread analysis, Mr. Remsha developed a three-year rolling average spark spread to buffer extremes[287]. He then compared each year's actual spark spread to the three-year average. By this analysis, Mr. Remsha determined that, for the 2003 tax year, the range of economic obsolescence was six to eleven percent[288]. Mr. Remsha used the same analysis for all the years at issue.

Inutility Analysis

To measure economic obsolescence for inutility, Mr. Remsha compared the utilization of Bowline to competing plants in the same area. He based his analysis on FERC Form 1 data that was reported for the comparable competing plants. Mr. Remsha analyzed oil and gas plants similar to Bowline[289], studying their utilization by reviewing their capacity factors.

The Best Of The Best

Mr. Remsha studied eight plants owned by utilities including Bowline. For the 2003 tax year, he averaged the utilization of all

eight plants studied, determining that the capacity factors ranged from 17.2% to 30.1%. He then removed under performers to determine the " best plants ". This resulted in three to five plants whose capacity factors ranged from 27.4% to 36.2%. Mr. Remsha also determined the " best of the best ", resulting in a single plant for each year. The range of capacity for the best of the best was 33.5% to 48.4%[290].

Inutility Penalty Range

Applying the capacity factor ranges for the best of the best plants to Bowline, Mr. Remsha computed the potential net generation if Bowline operated at the capacity factor range for the best of the best plants[291]. He then compared that potential net generation with Bowline's actual production to derive an inutility penalty range of 40.16% to 50.48%. Mr. Remsha concluded that 45% was the inutility penalty for the best of the best. He did the same computation and derivation for the best plants and concluded that 36% was the inutility penalty. Finally, he compared Bowline to all plants and concluded that 21% was the inutility penalty. Considering all three inutility penalties, he concluded an economic obsolescence factor due to inutility, for the 2003 tax year, to be 25%[292]. Mr. Remsha used the same analysis for all the tax years at issue.

Total Economic Obsolescence Calculated

Mr. Remsha then compared both economic obsolescence methodologies, spark spread and inutility, and determined the total economic obsolescence for each year under review[293].

Bowline Should Be Compared Only To " All Plants "

Bowline received income from the production of power [when it is running] and capacity payments. Mr. Walker opined that applying this inutility formula to the time Bowline is not running artificially increases any lost value because the formula does not account for the mitigating effect of the capacity payments[294]. Mr. Remsha testified that he remedied that problem by comparing Bowline's run time to other plants in Bowline's New York region that also received capacity payments[295]. However, rather than comparing Bowline to each of the oil/gas generating facilities in Bowline's region, Mr. Remsha compared a year of Bowline's run time to a 5 year average of only the " best " plants there, and then to only the " best of the best "[296]. It is Mr. Walker's position that this comparison by Mr. Remsha is designed to disadvantage Bowline thereby artificially increasing any lost value.

This Court agrees and is of the opinion that Bowline should only have been compared with " all plants ". Hence, the only inutility

penalty that should be considered is the penalty when Bowline is compared to “all plants,” which for the years at issue are as follows:

Year	Inutility Penalty for “All Plants”
1995	**3%**
1997	**6%**
1998	**21%**
1999	**6%**
2000	**6%**
2001	**-7% (0%)**
2002	**6%**
2003	**21%**

The Economic Obsolescence Penalty To Be Applied

When comparing Mr. Remsha’s economic obsolescence methodologies [spark spread and the inutility penalty for “all plants”], this Court concludes that the economic obsolescence for the tax years at issue to be:

Year	Economic Obsolescence
1995	**3%**
1997	**6%**
1998	**7%**
1999	**2%**
2000	**2%**
2001	**40%**
2002	**2%**
2003	**12%**

Respondents' Analysis: Functional Obsolescence For Excess Operating Costs

Mr. Walker considered functional obsolescence related to excess operating costs by comparing Bowline's operating costs to those of a peer group in the same geographic area[297]. The peer group Mr. Walker identified included six plants that burned oil and gas in the New York region as of the valuation dates[298]. The items that he identified as potentially causing functional obsolescence of Bowline relative to its peer group included Bowline's heat rate and variable and fixed operating expenses[299]. Mr. Walker concluded that based on a comparison to its peer group the Bowline facility exhibited no functional obsolescence[300].

The Court Rejects Respondents' Analysis Of Functional Obsolescence For Excess Operating Costs

To determine functional obsolescence for excess operating costs, Mr. Walker, instead of using EIA data for a modern facility, compared Bowline to equally aged and similar generating facilities[301].

Like Bowline, Mr. Walker's comparable plants had high operating costs and high heat rates[302]. In ascertaining his " comparable " plants, Mr. Walker had not reviewed drawings of the comparables, toured those plants, examined their original intended use [e.g., base load],

determined heat rate changes of the comparables over the years, or otherwise determined how the plants were comparable[303].

Mr. Walker testified that no one was building oil/gas steam turbine stations as of the valuation dates[304]. Hence, he should have compared Bowline to a modern CCGT, [See e.g., **Matter of Consolidated Edison Company of New York v. City of New York**, **Index No. 8564/98 (Kings Sup. 2004)(Hon. Michael L. Peace)(** " The evidence establishes that the current technology of choice is the combined-cycle, gas turbine system, which has supplanted the older single-cycle steam system because it is much cheaper to build and operate and is much more efficient")] thereby taking into account certain differences in operating costs between a CCGT and Bowline. Such differences included the number of people needed to operate the respective facilities, maintenance requirements for each station, and the difference in fuel costs resulting from the disparate heat rates between the CCGT and Bowline.

Hence, for the aforesaid reasons, this Court rejects Mr. Walker's analysis regarding functional obsolescence for excess operating costs.

Petitioner's Analysis: Functional Obsolescence For Excess Operating Costs

With respect to operating obsolescence, it is Mr. Remsha's view that older plants [such as Bowline] are more expensive to operate than its functionally equivalent generating station using current technology.

For operating cost functional obsolescence, Mr. Remsha based the difference in operating costs between the CCGT and Bowline on the number of people needed to operate the facility, the maintenance required due to design changes, and the difference in fuel costs resulting from the disparate heat rates between the CCGT and Bowline.

Measuring Obsolescence Due To Operating Costs

To measure the obsolescence due to operating costs, Mr. Remsha used Mirant's prior year actual financial statements[305]. He reviewed the prior year's capacity factor and used it to compute the generation magnitude of Bowline. He then applied the financial data to compute a three-year average operating expense based on Bowline's actual experience.

Fuel Operating Costs

To compute the fuel operating cost, Mr. Remsha used the monthly historical heat rates. He then computed an annual average heat rate for both Bowline and the CCGT and multiplied that by the net generation to achieve a total energy consumption in millions of btus per year[306]. Then, Mr. Remsha multiplied the energy consumed by the fuel cost, using the same fuel cost for both Bowline and the CCGT[307].

Non-Fuel Operating Costs

When computing the non-fuel operating costs, Mr. Remsha used Mr. Crean's estimated operating costs and adjusted those costs for the net generation based on the capacity factor applicable for the year being valued.

Operating Expenses

In determining operating expenses, Mr. Remsha added together the fuel, fixed and operating costs for both Bowline and the replacement CCGT[308]. After computing total operating expenses, Mr. Remsha subtracted the CCGT's operating costs from Bowline's operating costs.

Discount Rate

Mr. Remsha next computed a discount rate of 7.4%, capitalized the difference in operating costs by the discount rate, and obtained the total functional obsolescence due to operating costs.

Petitioners' Analysis Of Functional Obsolescence For Excess Operating Costs Rejected

Failing To Consider Adverse Effect On Heat Rate

Mr. Remsha testified that heat rate is a primary issue in determining operating cost and efficiency[309]. Mr. Crean testified that the additional equipment necessary to bring the hypothetical CCGT up to Bowline's summer capacity would adversely affect the heat rate of the hypothetical plant. Mr. Crean stated that " There is some additional auxiliary load that the chillers would have, so it would have some effect on the heat rate, yes. "[310]. Mr. Remsha neither recognized nor computed that adverse effect. Instead, he used the heat rate and resulting costs of the hypothetical CCGT plant at the deficient level to compute his deduction against Bowline's value for functional obsolescence from excess operating cost [which he labels " additional functional obsolescence "].

Failure To Consider Ability To Burn Gas And Oil

Mr. Remsha's deduction for functional obsolescence for excess operating costs fails to account for the operating benefit Bowline has of being able to burn either gas or residual fuel oil[311]. Dr. Makovich, testified about the benefits of fuel diversity[312] and his fuel price

forecasts show the increasing price of gas and decreasing price of residual fuel oil over time[313].

Mr. Crean stated that if Dr. Makovich's projected gas price of $4.39 per MMBTU were used for the hypothetical CCGT and the projected fuel oil price of $3.42 per MMBTU for the same year were used for Bowline, even at Bowline's higher heat rate [as compared to the hypothetical CCGT], Bowline would be a cheaper alternative than the CCGT[314] and thus not functionally obsolete. Although Mr. Crean stated that there was clearly a benefit to Bowline's ability to burn residual fuel oil, Mr. Remsha failed to consider that benefit. He used a constant fuel cost for both the hypothetical CCGT and Bowline in computing functional obsolescence from operating costs[315].

Bowline Runs Cheaper On Residual Fuel Oil

Dr. Makovich forecasted fuel prices that would make Bowline cheaper to run on residual fuel oil than the hypothetical replacement CCGT which would run only on gas. Particularly problematic is that this comparison was made using the heat rate for the hypothetical CCGT plant at the deficient level, not the higher heat rate that would result from bringing the hypothetical CCGT up to a capacity on a par with Bowline.

Hence, Mr. Remsha's assessment of functional obsolescence for excess operating costs is not supported by the proof in the record and is rejected by this Court.

Functional/Economic Obsolescence Due To Necessary Capital Expenditures

Necessary capital expenditures are expenses required by a government agency to continue operations. Such expenditures would be incurred by a potential purchaser of the subject plant, as well as by the current owner. A detailed listing of the necessary capital expenditures was obtained from Bowline by Mr. Remsha and includes the present value as of the appraisal date. The Respondents' experts, Mr. Walker and Mr. Sansoucy, have not objected to these values and they are accepted by this Court.

Fair Market Values of Bowline Using Cost [RCNLD] Approach

This Court determines that the range of testimony and evidence supports the following full market values based upon the cost [RCNLD] approach of the subject property for the tax years at issue:

		1995		1997
Reproduction Cost New		$1,050,595,000.		$1,064,756,000.
Less				
Funct. Obsol.(Cons. Co.)		200,930,000.		270,707,000.
Phys. Deprec.	(44%)	373,852,600.	(49%)	389,084,010.
Econ. Obsol.	(3%)	14,274,372.	(6%)	24,297,899.
Funct. Obsol.(Oper. Co.)		0		0
Funct./Econ. Obsol due to Necess. Cap. Expend.		0		0
Plus Land		19,800,000.		19,800,000.
RCNLD Value of Property		**$481,338,028.**		**$400,467,091.**
Valuation Ceiling		**$664,000,000.**		**$626,000,000.**
Valuation Floor		**$409,115,435.**		**$321,733,445.**

		1998		1999
Reproduction Cost New		$1,103,099,000.		$1,134,946,000.
Less				
Funct. Obsol. (Cons. Co.)		274,836,000.		244,001,000.
Phys. Deprec.	(48%)	405,848,870.	(50%)	445,472,500.
Econ. Obsol.	(7%)	29,568,989.	(2%)	8,909,450.
Funct. Obsol. (Oper. Co.)		0		0
Funct./Econ. Obsol. due to Necess. Cap. Expend.		0		17,530,000.
Plus Land		19,800,000.		19,800,000.
RCNLD Value of Property		**$412,645,141.**		**$438,833,050.**
Valuation Ceiling		**$486,000,000.**		**$572,000,000.**
Valuation Floor		**$224,471,235.**		**$156,995,675.**

	2000	2001
Reproduction Cost New	$1,158,699,000.	$1,165,745,000.
Less		
Funct. Obsol. (Cons. Co.)	248,323,000.	250,647,000.
Phys. Deprec.	(50%)455,188,000.	(50%)457,549,000.
Econ. Obsol.	(2%) 9,103,760.	(40%)183,019,600.
Funct. Obsol. (Oper. Co.)	0	0
Funct./Econ. Obsol. due to Necess. Cap. Expend.	15,090,000	14,730,000.
Plus Land	19,800,000.	19,800,000.
RCNLD Value of Property	**$450,794,240.**	**$279,599,400.**
Valuation Ceiling	**$341,000,000.**	**$531,000,000.**
Valuation Floor	**$341,000,000.**	**$191,723,256.**

	2002	2003
Reproduction Cost New	$1,185,066,000.	$1,222,746,000.
Less		
Funct. Obsol. (Cons. Co.)	330,009,000.	353,084,000.
Phys. Deprec.	(50%)427,528,500.	(51%)443,527,000.
Econ. Obsol.	(2%) 8,550,570.	(12%) 51,136,126.
Funct. Obsol. (Oper. Co.)	0	0
Funct./Econ. Obsol. due to Necess. Cap. Expend.	15,200,000.	16,380,000.
Plus Land	19,800,000.	19,800,000.
RCNLD Value of Property	**$423,577,930.**	**$378,418,254.**
Valuation Ceiling	**$411,000,000.**	**$454,000,000**
Valuation Floor	**$205,333,333.**	**$200,000,000.**

Moveable Machinery And Equipment

Lastly, the Petitioners seek to reduce still further the true value of Bowline for tax years 2000-2003 by subtracting the depreciated value of certain categories of equipment which they claim are " moveable machinery and equipment " as defined in Real Property Tax Law [" RPTL "] § 102(12)(f)[316], i.e., " electrical equipment (including the main generator step up transformer), substation equipment, pumps, ventilation equipment, valves and instrumentation "[317], a request opposed by the Respondents[318].

Specifically, the Petitioners urge this Court to further reduce the true value of Bowline in 2000 by an additional $20,238,500, in 2001 by an additional $20,498,000, in 2002 by an additional $20,769,500 and in 2003 by an additional $21,042,500[319].

Totally Lacking In Merit

Stated, simply, the Petitioners' position is totally lacking in merit and their request for still further reductions of Bowline's full market value for the tax years 2000-2003 is denied.

RPTL § 102(12)(f)

RPTL § 102(12)(f) states that real property shall include

“ power generating apparatus “ and “ equipment for the distribution of...power “ but shall not include “ moveable machinery or equipment consisting of structures or erections to the operation of which machinery is essential, owned by a corporation taxable under article nine-a of the tax law, used for trade or manufacture and not essential for the support of the building, structure...and removable without material injury thereto “.

The Courts that have considered the issue raised by Petitioners have held that pursuant to RPTL § 102(12)(f) electric power generation and distribution machinery are taxable regardless of whether such equipment is moveable, used in manufacture or owned by an entity conducting business under Article 9-A of the Tax Law [See e.g., City of Lackawana v. State Board of Equalization and Assessment, 16 N.Y. 2d 222, 264 N.Y.S. 2d 528 (1965)(first and second clauses in RPTL § 102(12)(f) operate independently and govern separate property; power generating apparatus and equipment for the distribution of heat, power, gases and liquids is taxable); Consolidated Edison v. City of New York, 80 Misc. 2d 1065, 365 N.Y.S. 2d 377 (1975), aff’d 57 A.D. 2d 826, 395 N.Y.S. 2d 42 (2d Dept. 1977), aff’d 44 N.Y. 2d 536, 406 N.Y.S. 2d 727 (1978); Fourth Branch Associates v. Town of Waterford, 147 Misc. 2d 646, 558 N.Y.S. 2d 453 (1990)(“ It has been clear...that power-generating equipment in a facility designed exclusively to produce same for commercial sale and transmission is assessable as real property...Respondents are awarded partial summary judgment to the

extent all the contested equipment and machinery [computer consoles, relay cabinets, turbines] is includable in the assessed value "); Matter of KIAC Partners v. Cerullo, 260 A.D. 2d 381, 687 N.Y.S. 2d 692 (2d Dept. 1999)(" At issue on this appeal is whether the entire plant including two electric generators is entitled to a real property tax exemption...It is well settled that electric generators...are considered to be real property as that term is defined in (RPTL 102(12)(f)...We... conclude that the generators at issue are both ' structures affixed to the land ' (RPTL 102(12)(b) and ' power generating apparatus ' (RPTL 102(12)(f))")].

RPTL § 102(12)(b),(e)

In addition to finding that power generation and distribution equipment is taxable under the first clause of RPTL § 102(12)(f), over the past 100 years New York Courts have consistently found that power generation equipment used in the commercial production of electricity [and equipment used in its distribution] is taxable under RPTL § 102(12)(b) or (e) (or their predecessor statutes)[See e.g., Herkimer County Light & Power Co. v. Johnson, 37 A.D. 257, 55 N.Y.S. 924 (4th Dept. 1899)(the provision treating as real property " all mains, pipes and tanks laid or placed in, upon, above or under public or private street or place for conducting...electricity or any property, substance or product capable of transmission or conveyance therein or that is

protected thereby " applied to purifiers, scrubbers, condensers, engines and other " machinery used in connection with the mains or wires for generating and sending forth electricity on the lines or gas through the mains "); Consolidated Edison v. City of New York, 80 Misc. 2d 1065, 365 N.Y.S. 2d 377 (1975)(" From the legislative history of the statutes and the decided cases it is clear to this court that it and always has been the policy of this State and the intention of the Legislature that power-generating apparatus and machinery and equipment, whether moveable or permanently affixed to realty, used in connection with the generation and distribution of power and an integral component part of a unified system–are taxable as real property per se under subdivision 12 of section 102 of the (RPTL) because they generate and distribute power "), aff'd 57 A.D. 2d 826, 395 N.Y.S. 2d 42 (2d Dept. 1977), aff'd 44 N.Y. 2d 536, 406 N.Y.S. 2d 727 (1978)(" Concluding that the barge-mounted power plants are real property within the meaning of (RPTL § 102(12)(b)) we find no sufficient reason to reach a contrary result with respect to the auxiliary apparatus and equipment and the four fuel oil barges which, in the manner of operation here employed, were used in connection with the power plants "); Fourth Branch Associates v. Town of Waterford, 147 Misc. 2d 646, 558 N.Y.S. 2d 453 (1990)].

Procedurally In Error

The Petitioner's presentation of this issue is procedurally in error since Petitioners' appraiser, Mr. Remsha, did not quantify what the deductions for moveable machinery and equipment should be or, more importantly, how any such deduction would affect his reconciled opinions of value for each year. The deductions based on property found by Petitioners', engineer Mr. Crean, not to be taxable real property were never evaluated or endorsed by Mr. Remsha and thus does not form a permissible adjustment to his cost [RCNLD] approach.

Conclusion

The Court determines that the full market value [underlined figures] of Bowline for each of the tax years in dispute [comparing the results of the RCNLD analysis with Bowline's valuation ceiling and floor] to be as follows:

	1995	**1997**
Valuation Ceiling	**$664,000,000.**	**$626,000,000.**
RCNLD Value of Property	**$481,338,028.**	**$400,467,091.**
Valuation Floor	**$409,115,435.**	**$321,733,445.**

	1998	1999
Valuation Ceiling	$486,000,000.	$572,000,000.
RCNLD Value of Property	$412,645,141.	$438,833,050.
Valuation Floor	$224,471,235.	$156,995,675.

	2000	2001
Valuation Ceiling	$341,000,000.	$531,000,000.
RCNLD Value of Property	$450,794,240.	$279,599,400.
Valuation Floor	$341,000,000.	$191,723,256.

	2002	2003
Valuation Ceiling	$411,000,000.	$454,000,000
RCNLD Value of Property	$423,577,930.	$378,418,254.
Valuation Floor	$205,333,333.	$200,000,000.

Indicated Assessed Values

Applying the stipulated equalization rates[320] for each year [1995 (11.37%), 1997 (11.93%), 1998 (11.97%), 1999 (11.56%), 2000 (9.36%), 2001 (8.6%), 2002 (8.01%) and 2003 (8.01%) the indicated assessed values are as follows:

Year	FMV	Eq. Rate	Indicated Assessed Value
1995	$481,338,028.	11.37%	**$54,728,134.**
1997	400,467,091.	11.93%	**47,775,724.**
1998	412,645,141.	11.97%	**49,393,623.**
1999	438,833,050.	11.56%	**50,729,101.**
2000	341,000,000.	9.36%	**31,917,600.**
2001	279,599,400.	8.60%	**24,045,548.**
2002	411,000,000.	8.01%	**32,921,100.**
2003	378,418,254.	8.01%	**30,311,302.**

Year	Town's Assessed Value	Difference in Assessed Value
1995	$76,057,400.	**$21,329,266.**
1997	76,118,300.	**28,342,576.**
1998	82,477,800.	**33,084,177.**
1999	82,477,800.	**31,748,699.**
2000	82,477,800.	**50,560,200.**
2001	82,477,800.	**58,432,252.**
2002	82,477,800.	**49,556,700.**
2003	82,477,800.	**52,166,498.**

Accordingly, the Petition is granted to the extent indicated above. With respect to the issue of allocation of the differences in assessed values among the various parcels (tax ID numbers), the parties are to submit an Order within seven (7) days addressing that issue.

Following such allocation, the assessment rolls are to be corrected, and the overpayments of taxes are to be refunded to the Petitioner with interest [See RPTL 726(1)(2)].

This constitutes the Decision, Order and Judgement of this Court.

Dated: August 11, 2006
White Plains, N.Y. 10601

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HON. THOMAS A. DICKERSON
SUPREME COURT JUSTICE

TO: Judge D. Michael Lynn
United States Bankruptcy Court
Northern District of Texas
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ENDNOTES

1. Mirant New York, Inc. v. Town of Stony Point Assessor, Index Nos. 4357/00, 4696/01, 5122/02, 5279/03, 4264-04, 4726-05, Rockland Supreme Court.

2. Petitioners' experts included Dr. Lawrence Makovich, a Ph.D. economist and senior director at Cambridge Energy Research Associates [" CERA "], who provided forecasts of pricing for electricity, natural gas, oil and coal as of January 1, 1998, 1999, 2000, 2001, 2002 and 2003 [Record at pp. 52-417; P. Exs. 3A-3D], William Crean, a licensed professional engineer and cost estimator of electric generating plants and employed by Black & Veatch, who provided calculations of the reproduction and replacement costs and depreciation of Bowline as of each of the valuation dates [Record at pp. 419-974, P. Exs. 6A-6D] and Michael Remsha of American Appraisal Associates, an appraiser and licensed professional engineer in the State of Wisconsin, who provided an appraisal of Bowline using three valuation methods, i.e., cost [1995-2003], income [1998-2003] and sales [2000-2003][Record at pp. 983-2541, P. Exs. 25A-25L, 28, 44].

Respondents' experts included George E. Sansoucy of George E. Sansoucy, P.E., LLC, a licensed professional engineer in the State of New Hampshire, who provided an engineering analysis for the reproduction cost new and incurable depreciation calculations in Respondents' cost approach to the value of Bowline [Record at 2590-3292; R. Exs. AA, BB] and Glenn Walker, an employee of George E. Sansoucy, P.E., LLC responsible for the development of appraisals dealing with electric generating facilities and public utility property, is a licensed certified general appraiser in the State of New York as well as Maine, New Hampshire, Michigan and Ohio, who provided an appraisal of Bowline using two valuation methods, i.e., cost [1995-2003] and income [2000-2003][Record at pp. 3294-4399; R. Exs. Y, Z-1-Z-4, JJ].

3. Petitioners' other witnesses included Victoria Lynch, an employee of Mirant Corporation and former employee of O&R who testified regarding O&R's trading arm that was formed in 1997 to trade in the New York Power Pool [" NYPP "]...New England Power Pool [" NEPOOL "]...and Pennsylvania-New Jersey-Maryland [" PJM "]... energy wholesale markets [Ct. Ex. 2] and Eddie Dorsett, a former employee of Southern Energy International [" SEI "] and Mirant Corporation, who testified about the sale of Bowline to SEI and about the trading activities of SEI in the electricity wholesale market [Record at pp. 1991-2125]

4. In Re: Mirant Corporation, Debtors, United States Bankruptcy Court for the Northern District of Texas, Fort Worth Division,

Case No. 03-46590-DML-11, Memorandum Order dated June 23, 2006, Judge Lynn (" By order entered January 9, 2004 this court deferred proceedings on the 505 Motion to allow the parties an opportunity to resolve the N.Y. Debtors' liabilities to the Taxing Authorities in the State Court Proceedings. In accordance with this court's requirements, trial of the State Court Proceedings was commenced by mid-2004. After months of evidentiary hearings, trial was completed but for filing of post-trial briefs. Before submission of all post-trial briefs, the parties asked Justice Dickerson to suspend the State Court Proceedings in order to permit settlement discussions... [settlement discussions were later terminated]...These chapter 11 cases have now been pending for almost three years...In order for the N.Y. Debtors to emerge from bankruptcy, these issues must be decided, as settlement of them appears politically impossible ...For these reasons, the court orders and directs as follows: 1. Subject to the further provisions of this memorandum order the 505 Motion will be heard by this court on August 21 and 22, 2006...5. The 505 Motion will not be heard to the extent that: a. Justice Dickerson renders a decision in the State Court Proceedings with respect to the Lovett Case or the Bowline case or both...In the event Justice Dickerson prior to August 7, 2006 informs this court that he expects to issue a decision disposing of the Lovett Case or the Bowline Case or both prior to October 21, 2006, hearing of the 505 Motion will be continued...to a date after October 21, 2006...").

5. **R. Ex. Y at pp. 3-8.**

6. The parties previously severed O&R's transmission and distribution real properties from these proceedings.

7. P. Ex. 1 at 2-3.

8. **P. Ex. 1 at p. 5.**

9. **P. Ex. 1 at p. 4.**

10. **P. Ex. 1; R. Exs. NN-1 to NN-5.**

11. **P. Ex. 25C, App. G; R. Exs. NN-1 to NN-8.**

12. **Record at 1999-2116; P. Exs. 25A at pp. 5, 3-3, 9-1, 13-4, 13-20; 25L [App. II][Bowline Point Generating Station Sales Agreement].**

13. **P. Ex. 25L, App. II.**

14. P. Ex. 1; R. Exs. NN-6 to NN-8.

15. P. Ex. 25B, App. G.

16. Orange and Rockland Utilities, Inc. v. Assessor of the Town of Haverstraw, Index No. 4133-95, Decision November 24, 2004, J. Dickerson.

17. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001), pp. 349-414; Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000), pp. 45-113; Lee & LeForestier, Review and Reduction of Real Property Assessments in New York, N.Y.S.B.A. (1988), (2000 Supp), § 1.07.

18. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001), pp. 570-593; Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000), pp. 179-182; Lee & LeForestier, Review and Reduction of Real Property Assessments in New York, N.Y.S.B.A. (1988), (2000 Supp), § 1.08.

19. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001), pp. 417-467; Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000), pp. 115-156; Lee & LeForestier, Review and Reduction of Real Property Assessments in New York, N.Y.S.B.A. (1988), (2000 Supp), § 1.04.

20. See P. Exs. 28, 44, Record at p. 2392.

Year	Cost	Income	Sales	Reconciled
1995	211,031,000	n/a	n/a	211,000,000
1996	187,203,000	n/a	n/a	187,000,000
1997	145,867,000	n/a	n/a	146,000,000
1998	161,846,000	112,000,000	n/a	150,000,000
1999	113,088,000	147,000,000	n/a	125,000,000
2000	114,039,000	185,000,000	250,000,000	175,000,000
2001	26,485,000	172,000,000	200,000,000	150,000,000
2002	116,561,000	213,000,000	250,000,000	200,000,000
2003	93,034,000	291,000,000	225,000,000	200,000,000

21. This figure is a revision of the earlier declared value of $100,515,006 [P. Ex. 28, Section 24-4].

22. This figure is a revision of the earlier declared value of $187,000,000 [P. Ex. 28, Section 23-4].

23. This figure is a revision of the earlier declared value of $146,000,000 [P. Ex. 28, Section 22-4].

24. R. Ex. JJ at tabs A, B, D, E and 4.

Year	Cost	Income	Sales	Reconciled
1995	664,000,000	n/a	n/a	664,000,000
1996	671,000,000	n/a	n/a	671,000,000
1997	626,000,000	n/a	n/a	626,000,000
1998	486,000,000	n/a	n/a	486,000,000
1999	572,000,000	n/a	n/a	572,000,000
2000	732,000,000	334,000,000	n/a	341,000,000
2001	732,000,000	524,000,000	n/a	531,000,000
2002	740,000,000	404,000,000	n/a	411,000,000
2003	735,000,000	447,000,000	n/a	454,000,000

25. P. Ex. 25L, App. II.

26. P. Ex. 37 at pp. 2-4.

27. P. Ex. 38 at pp. 2-33.

28. Record at pp. 1999-2116.

29. Petitioners' Post-Trial Memorandum of Law On Petitioner's Proof [" P. Memo. "] at pp. 32-39; Petitioners' Post-Trial Memorandum of Law On Respondents' Proof dated February 15, 2006 [" P. Memo. II "] at pp. 16-17; Respondents' Post-Trial Memorandum [" R. Memo. "] at pp. 17-20, 47-53; Petitioners' Post-Trial Reply Memorandum of Law [" P. Reply Memo. "] at pp. 24-27; Respondents' Post-Trial Reply Memorandum [" R. Reply Memo. "] at pp. 16-19.

30. Lee & LeForestier, Review and Reduction of Real Property Assessments in New York, N.Y.S.B.A. (1988), (2000 Supp), § 1.03, p. 13.

31. P. Memo. at p. 2 (" Most importantly, based on Respondents' own admission, as contained in their appraisal report, for each year in question Respondents grossly over-assessed the real property comprising the Bowline Station ")(Compare R. Ex. JJ, Tab A and 4 with R. Ex. Y, App. C and P. Ex. 25B, App. G).

32. See N. 2, supra.

33. See N. 2, supra.

34. See N. 2, supra.

35. Ct. Ex. 2.

36. Record at pp. 1999-2116.

37. If the Petitioners had made a motion *in limine* after their appraisals were filed but before the trial was commenced [Orange and Rockland Utilities, Inc. v. Assessor of the Town of Haverstraw, 7 Misc. 3d 1017, 801 N.Y.S. 2d 238 (2005)] the number of trial days [59] may have been reduced saving the Court and the parties considerable time and expense.

38. See N. 20, supra.

39. See N. 24, supra.

40. P. Reply Memo. at pp. 10-11. The testimony of Victoria Lynch [Ct. Ex. 2, pp. 9-11, 13-15, 15-17, 22, 27-35] and Eddie Dorset [Record at pp. 1997, 1998, 2004] regarding the existence of a wholesale electricity market is interesting, to be sure, but is anecdotal in nature and lacks credibility.

41. P. Exs. 3A at p. 2; 25A at pp. 3-1, 3-2, 4-1, 4-2, 4-5; 25B, App. F at p. 29-31.

42. P. Exs. 25A at pp. 4-3; 25B, App. F at p. 30; R. Exs. Y at p. 18, Z-1 at p. 17.

43. Record at pp. 104, 1058, 1063; 1453-1454; P. Exs. 25A at pp. 4-5; 25B, App. F at pp. 29-31.

44. Record at pp. 1060-1061; P. Exs. 25A at pp. 4-3; 25B, App. F at pp. 17, 30; R. Exs. Y at p. 18, Z-1 at p. 17.

45. Record at p. 1061; R. Ex. Y at p. 18 (" The mechanism for determining the rates IOUs charge customers is referred to as ' cost-of-service '...cost-of-service pricing was used as a proxy for competitive markets to set rates in the electric industry. In the late 1980s and early 1990s, the difference between electric prices established using cost-of-service pricing was at levels believed to be higher than if the industry were deregulated and prices established through competition ").

46. Record at p. 102-103; P. Exs. 3A at p. 2; 25A at p. 4-6.

47. R. Ex. Y at p. 21 (" There are physical constraints on the flow of electricity that regulations and legislative initiatives are incapable of overcoming. These limitations are important because constraints on the transmission of electricity define the markets which an electric generating facility such as (Bowline) is able to serve. The highest level of integration between the various markets or geographic regions occurs within (NERC)... Interconnections among NERC regions and sub-regions are sufficient to allow for some integration of the NERC system through various transmission line interconnections. However, the limited degree of interconnections does not allow there to be a national marketplace for electric commodities ").

48. Record at pp. 102-103; P. Ex. 3A at p. 2.

49. P. Ex. 25B, App. F at pp. 17 (" FERC rulings pull the plug on monopolies "), 30.

50. Record at pp. 62-63, 736-739; P. Exs. 3A at p. 2; 25A at p. 4-3.

51. Record at pp. 62, 104-105, 1058, 1063; P. Exs. 3A at p. 2; 25A at p. 4-5; 25B, App. F at pp. 30-31; R. Ex. Y at p. 19 (" The passage of PURPA created two new classes of ' non-utility generator ' (NUGs), the small power producers and qualified cogenerators and required electric utilities to purchase electricity from these new classes of generator if certain criteria were met. The passage of PURPA...is considered to be the first step in creating a competitive market for wholesale electric energy "); See also: Watson Cogeneration Company v. County of Los Angeles, 98 Cal. App. 4th 1066, 120 Cal. Rptr. 2d 421 (2002)(" The facility was developed as a ' qualifying facility ' in accordance with the Public Utility Regulatory Policies Act of 1978...a federal legislative scheme intended to encourage the development of cogeneration and small power production facilities ").

52. Record at pp. 105-106, 1058, 1059; P. Exs. 25A at p. 4-5; 25B, App. F at pp. 30, 31. See e.g., Freemont-McMoran Resource Partners v. County of Lake, 12 Cal. App. 4th 634, 16 Cal. Rptr. 2d 428 (1993)(" Under (PURPA) and (FERC) utilities are required to purchase electricity from ' qualifying facilities '...at a price no greater than the utility's ' avoided cost ' (the cost the utility would have incurred by generating the electricity itself ").

53. Record at pp. 1063-1065; P. Ex. 25B, App. F at pp. 30, 31.

54. Record at pp. 1058-1059, 1453; P. Exs. 25A at p. 4-5; 25B, App. F at pp. 30, 31, 111. For tax certiorari cases involving co-generation facilities see Matter of TBG Cogen Partners v. The Assessor of the County of Nassau, New York Law Journal, August 15, 2001, p. 21, col. 3 (Nassau Sup. 2001)(J. Winslow)(" The property...is improved with a co-generation plant that was constructed in 1998 to produce steam and electricity from natural gas-powered turbines. Grumman/Northrup-Grumman has been the Plant's sole purchaser of steam for the Plant's entire working life to date "); Watson Cogeneration Company v. County of Los Angeles, 98 Cal. App. 4th 1066, 120 Cal. Rptr. 2d 421 (2002)(" The facility was developed as a ' qualifying facility ' in accordance with the Public Utility Regulatory Policies Act of 1978...a federal legislative scheme intended to encourage the development of cogeneration and small power production facilities ");

55. New York passed the "6-cents law" [New York Public Service Law 66-c, enacted 1981 and repealed 1992], which required public utility companies to purchase electricity from any independent power producer for " 6-cents " a kilowatt [Record at pp. 2990, 2991]. As energy prices declined in the late 1980s and early 1990s, this statutorily set price became excessive and burdensome on both New York public utilities and electricity customers. Effectively, the 6–cents law allowed NUG's an excellent return, as it required PUC's to pay them electricity prices well in excess of their avoided cost [Record at pp. 1063-1064]. The proliferation of NUGs may have led to significant overcapacity in New York's markets, creating a wholesale market for electricity transactions [i.e., both NUGs and PUCs were seeking to sell their excess capacity].

56. Record at pp. 1064-1065 (" The utilities were rate-based regulated and the small PURPA producers were mom and pop operators in many cases who were operating these plants for one purpose, to obtain a revenue stream from the local utility. It was very lucrative for them at times if they could operate with minimal expenses, with older expenses and produce electricity ").

57. Record at pp. 104, 1058, 1063; P. Ex. 25B, App. F at pp. 30, 31.

58. Record at pp. 62, 105; P. Ex. 25B, App. F at pp. 30, 31, 110.

59. Record at pp. 105-106.

60. Record at pp. 60-64, 109-111; P. Ex. 25B, App. F at pp. 68-69.

61. Ct. Ex 2 at p. 9-11.

62. Record at p. 1065-1066; P. Exs. 25A at p. 4-5; 25B, App. F at p. 31, 73, 74.

63. Record at pp. 110-111, 1066-1067; P. Ex. 25A, at pp. 4-3, 4-5.

64. Record at p. 1453; P. Ex. 25B, App. F at pp. 30-32, 73-75; R. Ex. Y at p. 51 (" Order 888 required all utilities to provide non-discriminatory open access to its transmission facilities to all wholesale buyers and sellers. The result...was the general division of the industry into three functions: generation service; transmission service and distribution service...FERC made it possible for certain generating facilities to enter into purchase power agreements (PPAs) or other contracts to provide electric generation service "); See also: Matter of Erie Boulevard Hydropower LP v. Town of Ephratah Board of Assessors, 2003 WL 21172636 (N.Y. Sup.), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004)(" The first defect in petitioner's DCF approach is the failure of its appraisers to use actual income based on two (PPAs)..."); Watson Cogeneration Company v. County of Los Angeles, 98 Cal. App. 4th 1066, 120 Cal. Rptr. 2d 421 (2002)(" selling its power...pursuant to the (PPA) (which) assured Watson a guaranteed purchaser for its entire output...Where as here, the income flow can be expected to remain stable, based on controlled pricing and assured usage, the value of the property ' can best be estimated in terms of actual income rather than imputed income '").

65. P. Ex. 25L, App. II.

66. R. Ex. Y at p. 20 ((P.S.C. Opinion 96-12) " did not mandate, but suggested divestiture of generating assets...").

67. P. Exs. 25A at p. 4-3, 4-5.

68. Record at pp. 109-111, 1067, 1108-10, 1453-1454; P. Ex. 25A at pp. 4-5.

69. Record at pp. 59-61.

70. Subsequently, Blumberg entered the electricity price reporting market [Record at p. 114]. In addition, Pasha Publications, Inc. published Megawatt Daily which contained articles and pricing information nationally [P. Ex. 31][Ct. Ex. 2 at pp. 27-31)].

71. Record at pp. 58-61, 114.

72. Record at pp. 58-62.

73. Record at pp. 1023, 1108.

74. Record at pp. 58-64., 4131-4132.

75. Ct. Ex. 2 at p. 13-15.

76. P. Ex. 25L, App. II [P.S.C. Opinion No. 96-12].

77. Id. at p. 1.

78. Id. at p. 15.

79. Id. at pp. 64-65.

80. Id. at pp. 64-66 (" We strongly encourage divestiture, particularly of generation assets, but do not require it immediately...While divestiture of energy service company operations is encouraged, for now we will allow utilities to continue to provide energy services to their customers either directly or through an affiliate ")].

81. R. Ex. Y at p. 20 (" The result of this NYPSC Order was that six of the IOUs in New York State submitted a plan to sell its generating assets. Table 7 summarizes the utilities that submitted proposals (New York State Electric & Gas, Orange and Rockland Utilities, Rochester Gas & Electric, Central Hudson Gas & Electric, Consolidated Edison, Niagara Mohawk Power)...most of the utilities...did not transfer their assets until the 1999 to 2000 time period ").

82. Record at pp. 109-111, 115-119, 1067, 1068, 1070-76, 1451; P. Ex 25D, App. H at p. 176-82. See also: Matter of Niagara Mohawk Power Corp. v. Town of Moreau Assessor, 207 A.D. 2d 669, 762 N.Y.S. 2d 847 (3d Dept. 2003); Matter of Erie Boulevard Hydropower LP v. Town of Ephratah Board of Assessors, 2003 WL 21172636 (N.Y. Sup.)(" Following the deregulation of the utility industry in New York, the Niagara-Mohawk Power Corporation in 1999 sold 72 hydroelectric facilities ...The record shows that, after the electrical industry was deregulated, utilities in New York and elsewhere sold their generating plants "), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004).

83. P. Ex. 25D, App. H at pp. 176-182.

March 1999: Edison International's subsidiary, Edison Mission Energy, purchased the 1,884 MW Homer City plant from New York State Electric & Gas and Pennsylvania Electric Co.

June 1999: NRG Energy Inc. acquired the 760 MW Huntley plant and the 600 MW Dunkirk plant from Niagara Mohawk Power Co; Consolidated Edison Co of NY sold its 2,168 MW Ravenswood plant to KeySpan Corporation and its 842 MW Arthur Kill plant and 614 MW Astoria plant to NRG Energy [See P. Ex. 25D, App. H at p. 81 (" This is yet another step in the journey toward a competitive energy market for consumers in New York City and Westchester County ")].

August 1999: Consolidated Edison Co. Of NY sold its 1,090 MW Astoria plan, its 494 MW Gowanus plant and its 271 MW Narrows plant to Orion Power Holdings [See P. Ex. 25D, App. H at p. 111 (" The stage has been set for true wholesale energy supply competition within New York City ")]; Niagara Mohawk Power sold 72 hydro plants (661 MW) to Orion Power Holdings.

October 1999: NRG Energy, Inc. purchased the 1,700 MW Oswego station from Niagara Mohawk Power and Rochester Gas & Electric.

May 2000: Niagara Mohawk sold its 400 MW Albany plant to PSEG.

January 2001: Dynergy Inc. acquired the Danskammer plant from Central Hudson Gas & Electric and the Roseton plant from Central Hudson Gas & Electric, Niagara Mohawk and Consolidated Edison Co.

November 2001: Constellation Energy purchased Nine Mile Point #1 from Niagara Mohawk and 82% of Nine Mile Point #2 from Niagara Mohawk, New York State Electric & Gas, Rochester Gas & Electric and Central Hudson Gas & Electric.

84. Id. July 1999: Southern Energy, Inc. purchased 8 plants including Bolwine and Lovett, totaling 7,776 MW from Orange & Rockland Utilities and Consolidated Edison.

85. The assertion of Petitioners' appraiser, Michael Remsha " that there definitely is a market for the sales of generating plants in the State of New York that we could quantify as early as 1997, 1998 " [Record at pp. 1068-1069] is, clearly, not based upon any sales in New York State since there were none in 1997 and 1998. Mr. Remsha's assertion is, evidently, based upon a few

sales in other states in 1997 and 1998 which he refers to as a " national market " [Record at pp. 1068-1073, 1451-1452]. In addition, Mr. Remsha's rationale for not using the comparable sales approach for tax years 1995-1999 [Record at p. 1078 (Q. The sales comparison approach you only used in year 2000 forward, have I got that right? A. We identified a market around that time frame ")] contradicts his assertion that a market existed in New York State in 1997 and 1998.

86. See ISO Power Trends 2005, A Report by the New York Independent System Operator April 2005 available at www.nyiso.com/public/newsroom/whats_new/index.jsp. (" On December 1, 1999, the New York Independent System Operator (NYISO) opened its markets ")(Last visited July 6, 2006). Compare to the California Power Exchange as discussed in Watson Cogeneration Company v. County of Los Angeles, 98 Cal. App. 4th 1066, 120 Cal. Rptr. 2d 421 (2002)(" During that same time period, California also was in the process of completing deregulation of the state power industry ...The statute also mandated creation of the California Power Exchange...to organize the wholesale market for electricity generation by selecting the lowest priced set of generators capable of meeting the state's load demand at any hour. The Power Exchange began operation on March 31, 1998 ").

87. R. Ex. Z-1 at p. 22 (" For more than 30 years prior to 1998, the New York power system was operated by the (NYPP) which centrally dispatched power plants and operated the transmission grid to minimize its members' power production costs and maintain statewide reliability...During the transition to competition, the goal of NYPP was the creation of the (NYISO) that was to establish operating procedures for the region's transmission systems and create an independent market for the buying and selling of wholesale electricity ").

88. R. Ex. Z-1 at p. 22 (" The establishment of the NYISO created a market in which buyers and sellers could purchase wholesale electricity, or its various components. The structure of the market continues to evolve but currently includes the following commodities: Installed Capacity, Day-ahead Energy Real-time Energy, Ancillary Services, Operating Reserves, Spinning Reserves, Voltage Regulation, Black-start Capability. Installed capacity and either day-ahead or real-time energy comprise the largest component of wholesale electric prices and are the most widely traded of the NYISO commodities "); Matter of Erie Boulevard Hydropower LP v. Town of Ephratah Board of Assessors, 2003 WL 21172636 (N.Y. Sup.)(" the appraiser relied on market rate information derived principally from the New York

Independent System Operator Real Time Electricity Rates and Day Ahead Electricity Rates that were accumulated between November 1999 and December "), aff'd 9 A.D. 3d 540, 779 N.Y.S. 2d 634 (3d Dept. 2004).

See also: NYISO Energy Markets at www.nyiso.com/pub;ic/products/energy_market/index.jsp?display=0 (" NYISO conducts energy market auctions in two phases. The Day Ahead Market is conducted prior to the commencement of each day. Forward contracts are established for each hour of the coming day. The Real Time Market is conducted when the load actually occurs. Most energy in the NYISO is transacted in the Day Ahead Markets ")(Last visited July 6, 2006).

89. The day ahead and the hourly markets did not exist in 1999 [Record at pp. 383-384].

90. P. Ex. 25A at p. 3-1 (" The Bowline Point Generating Plant is in a New York electricity market monitored and maintained by the (NYISO). One of the largest and most liquid electricity markets in the United States, the NYISO is operates as a competitive, bid-based pool...the NYISO operates facilities that serve nearly 6% of the U.S. population. Neighboring ISOs include the Pennsylvania/New Jersey/Maryland ("PJM") ISO to the south, the ISO New England [NEPOOL]...to the east, and the Quebec and Ontario systems in Canada to the north. ISO systems in the United States are formed taking into account market-based electricity prices; immediate needs for electricity; competitive energy, capacity and ancillary service markers; export capability to adjacent markets; and access to open retail markets ").

91. Record at 3397-3402 (" The day-ahead market occurs the day ahead. The generators in New York submit bids to the New York ISO for what they feel they want to bid for tomorrow, in essence, the next day. The New York ISO runs a simulation and determines which generators are going to be required and establishes prices for the zones in each hour. It then notifies the generators and says we have established that the price for tomorrow is going to be $40 "). See NYISO's description of the Day Ahead Market at www.nyiso.com/public/products/energy_market/index.jsp?display=0 (" The Day Ahead Market (DAM) sets prices at 11:00 AM the previous day...based on generation and energy transaction bids that were offered in advance to the NYISO. DAM prices are determined on an hourly basis for each of the state's eleven zones and for the four neighboring areas...Typically more than 90% of energy transactions processed by NYISO occur in the DAM. A software program called Security Constrained Unit Commitment (SCUS) determines the amount of energy expected to be needed within the state for each day. NYISO will schedule the generating

units that can most economically satisfy the energy to supply customers' demand and allow a sufficient reserve for contingencies ")(Last visited July 6, 2006).

92. Record at pp. 3399-3401 (" there is also a realtime market where, depending on what happens between the simulation and the actual time energy is needed, occurrences can change. For instance, a generator that was scheduled to be in the day-ahead market may have an outage, may not be available. At that point the New York ISO will bid people in the realtime market...The realtime market operates on an hour-ahead basis or a five-minute ahead basis. See NYISO's description of the Real Time Market at www.nyiso.com/public/products/energy_market/index.jsp?display=0 (" Real-Time Market (RT) Prices are calculated at five-minute intervals...throughout the day based on generation and energy transaction bids that were offered to the NYISO. RT prices are determined for each of the state's eleven zones and for the four neighboring areas...Typically less than 10% of energy transactions processed by NYISO occur in the RT market ")(Last visited July 6, 2006).

93. Record at pp. 3384-3396.

94. Record at p. 3397 (" The (NYSIO) publishes their prices in several ways. These were developed from the monthly reports that the (NYISO) puts out each month. The ISO puts out a monthly report and it includes several things: Demand for the month, amount of supply that was provided during the month...then the prices for the various zones, both for the day-ahead and the realtime markets, and the various other markets it conducts "). See also NYISO Market Data Exchange at www.nyiso.com/public.market_data/pricing_data.jsp (" Day-Ahead Market LBMP [Zonal, Generator, Hub Prices, Reference Bus], Real-Time Market LBMP [Zonal, Generator, Hub Prices], Time Weighted/Integrated Real-Time LBMP [Zonal, Generator, Reference Bus], Balancing Market (Hour Ahead) Advisory Prices [Zonal, Generator, Reference Bus], Ancillary Services [Day-Ahead Market, Hour-Ahead Market, Real-Time Market], Outages [Day-Ahead Scheduled Outages, Real-Time Scheduled Outages, Real-Time Actual Outages, Outage Schedule], Constraints [Limiting Constraints, DAM Limiting Constraints], Interface Flows [Internal/External Limits & Flows], PARs [PAR Schedules, PAR Flows, DAM PAR Schedule Diagrams], ATC/TTC [ATC/TTC, Preschedule ATC/TTC, Transfer Limitations-PDF, Transfer Limitations-CSV], Load Forecast/Commitment [ISO Load Forecast, Zonal Load Commitment], Actual Load [Real-Time Actual Load, Integrated Real-Time Actual Load, Load and SCUS Forecast data-Monthly Data Postings, Current Hourly Loads], Reports,

Operational Studies & Systems Performance Reports, General Information)(Last visited July 6, 2006).

95. Record at pp. 168-171.

96. Petitioners' appraiser Mr. Remsha decided not use a sales comparison approach until tax year 2000 because there was no market for the sale of generating facilities in New York State. [Record at p. 1078 (Q. The sales comparison approach you only used in year 2000 forward, have I got that right? A. We identified a market around that time frame ")]. The Respondents' appraiser also found insufficient sales of generating facilities to support a sales comparison approach [R. Ex. Y at pp. 55-61].

97. See P. Memo. at pp. 11-18, 25-79; P. Memo. II at pp. 11-16; R. Memo. at pp. 6, 9-26, 40-45; P. Reply Memo. at pp. 1-11, R. Reply Memo. at pp. 11-31.

98. See Orange And Rockland Utilities, Inc. v. Assessor of the Town of Haverstraw, 5 Misc. 3d 1010, 798 N.Y.S. 2d 711 (2004). See also the discussions of the Indian Point II nuclear facility [New York State] restricted use summary appraisal for the tax year 1996 [Record at pp. 2999-3033, 4155-4157, 4397-4398 and P. Ex. 51 at pp. 9 (" Electricity property in the State of New York is considered to be specialty property "); 14 (" as of the January 1, 1996 valuation date for this report a market for nuclear power stations had not yet developed ")]; Grenidge generating facility [New York State] appraisal for tax year 1999 [Record at pp. 3033-3052, 4220-4228, 4235-4248]; W.F. Wyman generating facility [Maine] appraisal for tax year 1995 [Record at pp. 4124-4138]; Midland Cogeneration facility [Michigan] appraisal for tax years 1997-1998 [Record at pp. 4233-4238, 4241-4243, 4140-4153]; NEPOOL Executive Summary [Record at pp. 4140-4152, P. Exs. 70-71]; Zimmer generating facility [Ohio] appraisal for tax year 1997 [Record at pp. 4159-4176, P. Ex. 72]; Killen generating facility [Ohio] appraisal prepared for tax year 1999 [Record at 4191-4199].

99. Record at pp. 117-119.

100. Record at pp. 104, 116-117.

101. Record at p. 117.

102. Record at pp. 115-119.

103. Record at pp. 118-119.

104. See N. 85, supra.

105. See N. 83, supra.

106. Record at p. 3383 (" deregulation and creation of ISOs provides for better price signals to be used in the income approach. Prior to deregulation and the creation of ISOs, the income approaches developed were based on proxy plans or a limited amount of data from the marketplace, versus this more liquid and competitive market that's been established ").

107. Record at pp. 3382-3382 (" Prior to that date, when some of the generating assets were sold, some were under regulation... (and) subject to the cost-of-service pricing and some... were competitive...once the majority of all generating assets were sold and the ISO...operational, that's when you begin to have a competitive and liquid market versus a hybrid market ").

108. Record at 2177 (" electric prices tended to be less stable than in the past again primarily because we were in a deregulated marketplace where the price of electricity has been determined by supply, demand and competition ").

109. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001), at pp. 569-570.

110. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000), p. 179.

111. See e.g., Matter of Spring Valley Water Company v. Public Service Commission, 71 A.D. 2d 55, 422 N.Y.S. 2d 155 (3d Dept. 1979)(" This argument is primarily based upon the contention that the commission's use of the DCF method to estimate the cost of equity capital was irrational. This court previously stated that there appears nothing arbitrary or capricious in utilizing the DCF method "); Matter of New York Telephone Company v. Public Service Commission, 64 A.D. 2d 232, 410 N.Y.S. 2d 124 (3d Dept. 1978)(" expert witnesses...gave their opinions as to the rate of return on equity required by petitioner. The various experts employed a total of five different approaches to arrive at their figures, and it is apparent from the Commission's determination that it relied on the so-called discounted cash flow method...We perceive nothing inherently arbitrary or capricious in such reliance as long as the experts were not

precluded from presenting other accepted methods of determining rate of return on equity ").

112. See e.g., Matter of Dissolution of Funplex, Inc., 252 A.D. 2d 923, 676 N.Y.S. 2d 321 (3d Dept. 1998)(" we are not persuaded by petitioner's argument that Johnson's ' discounted cash flow ' methodology, or the projections to which he applied that methodology, are critically flawed such that his valuation must be rejected entirely. The record does, however, reveal an error in Johnson's use of a ' capital deficiency ' adjustment "); Dempster v. Dempster, 204 A.D. 2d 1070, 613 N.Y.S. 2d 78 (4th Dept. 1994)(" The discounted cash flow method used by plaintiff's expert is similar to the capitalization of earnings method...which has often been used to value closely held corporations (however) we are unable to determine from this record whether the expert applied the discounted cash flow method properly in valuing that corporation... (matter remitted) for proper valuation ").

113. See e.g., Frontier Town Properties, Inc. v. State of New York, 36 A.D. 2d 148, 319 N.Y.S. 2d (3d Dept. 1971)(" His third method of valuation was the ' income or economic approach ' which utilized the ' discounted cash flow method '. This method of valuation required the appraiser to project the future income and costs of the theme park...His valuations...were based primarily on a projected development of the theme park...The plans for the construction of new attractions were at best meager...evidence of probable attendance and increased revenue... was highly speculative and insufficient to support such valuations "); See also: Amdur, Property Taxation Of Regulated Industries, 40 Tax. Law. 339 (1987)(" There are two basic approaches to estimating the cost of equity...(2) ' Discounted cash flow '-determine the discount rate necessary to discount the expected cash flow (from dividends and appreciation) to a present value equal to the current market price of the stock (DCF) is based on the concept that the return required by investors consists of compensation for two elements-illiquidity and risk ").

114. Record at pp. 3802-3805.

115. Record at p. 4300.

116. R. Exs. Z2, App. F (Tables F-10 to F-13); JJ, Tabs H-J. See also: P. Reply Memo. at p. 36, fn 18.

117. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at p. 570.

118. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000) at p. 182.

119. Petitioners' appraiser, Mr. Remsha, used a more reasonable seven (7) year holding period for his DCF analysis [Record at pp. 1220-1221 (" So if you can shorten your cash stream into a period of time that is five or ten years or in my case here seven years, the risks inherent in the forecast are lower than if I went out, say, 15, 20, 30, 40 years. The confidence level in the forecast is higher, hence the risks are lower ")].

120. P. Reply Memo. at pp. 37-38.

121. P. Memo. I at p. 45.

122. Record at p. 1087; P. Ex. 25A at pp. 14-4-14-7.

123. Record at pp. 1087, 1113; P. Ex. 25A at pp. 14-7-14-8.

124. Record at p. 1083; P. Ex. 25A at pp. 14-19, 14-20.

125. Record at pp. 1221-1222.

126. Record at p. 1222; P. Ex. 25A at pp. 14-20.

127. P. Memo. I at p. 50; Record at pp. 79-85, 160-161; P. Ex. 3A at pp. 4, 8, 10, 15.

128. Record at pp. 166-167; P. Ex. 3A at pp. 12-14.

129. Record at pp. 181-182; P. Ex. 3A at pp. 4, 12-15, App. C.

130. Record at pp. 145-146; P. Ex. 3A at pp. 8, 11-12, App. A, Table A-2.

131. Record at pp. 154-157; P. Ex. at pp. 11-12, App. A.

132. Record at pp. 159-169, 181-212, 224-30.

133. Record at pp. 156, 16-163, 231-249; P. Ex. 3A at pp. 14-20, App. D.

134. Record at pp. 160, 219-223, 235-238; P. Ex. 3A at pp. 14-20, 24, App. C & D.

135. Record at pp. 80, 85-86, 224-226, 243-248; P. Ex. 3A at pp. 19-20, App. F.

136. Record at pp. 246-247.

137. Record at pp. 80, 235, 249; P. Exs. 3A, pp. 19-20, 23-24, App. F; P. Ex. 4D.

138. Record at pp. 88-89, 255-256, 260-267,; P. Ex. 3A at pp. 25-31.

139. Record at pp. 88-89, 255-256, 267-268, P. Ex. 3A at pp. 25, 27.

140. Record at pp. 88, 89, 255, 256, 267, 268; P Ex. 3A at pp. 25, 27.

141. Record at pp. 257-258, 270; P. Ex. 3A at pp. 25, 27, 29, App. H.

142. Record at pp. 1122-1123; P. Ex. 3A at 14-1-14-5, 14-21. There is considerable disagreement at to whether Mr. Remsha " properly applied Dr. Makovich's price duration curves " [P. Reply Memo. at pp. 46-50] or ignored Dr. Makovich's " price duration curve...Mr. Remsha also assumed that different costs could be avoided if Bowline were not operating than those Dr. Makovich used in the creation of his supply curve and price duration curves. Mr. Remsha thereby effectively compelled a conclusion that it would be economically unfeasible for Bowline to dispatch at the rate predicted by Dr. Makovich. As a consequence, while Dr. Makovich predicted that Bowline would dispatch at capacity factors ranging from approximately 1% to 50% (Record at pp. 246-247; 345-346), Mr. Remsha predicted an optimum capacity factor for Bowline of only 1% to 2% <u>for each year of his DCF model</u> (Record at p. 2217). Mr. Remsha's use of different assumptions regarding Bowline's variable costs or the cost that could be avoided by not operating the station severely depressed the unit's projected utilization in comparison to that forecast by Dr. Makovich " [R. Memo. at pp. 95-105]. According to Respondents there is a " disconnect " between the approaches of Mr. Remsha and Dr. Makovich and that " it is impossible to integrate or combine the results of those approaches to arrive at a reliable forecast of generation revenue for Bowline " [R. Memo. at pp. 104-105].

143. Record at pp. 1087, 1123, 1237.

144. Record at pp. 1123-1124; P. Ex. 25A at pp. 14-4-14-5.

145. Record at p. 2427, 2430-2431 (" The Court: So to be able to prove that you can run, you have to run. But your suggestion is run the least. The Witness. Correct. And that's typical of an old-style steam plant; that's typical of a peaking plant, whether it is new technology or old technology....The Court: I'm just thinking in terms of the income approach. The Witness: In terms of the income approach, the primary value indicator or component is the capacity payment ").

146. Record at p. 1123.

147. Record at p. 1087; P. Ex. 25A at pp. 14-8-14-9.

148. Record at p. 1130; P. Ex. 25A at pp. 14-9, 14-10; P. Ex. 25D, App. J at p. 15.

149. Record at pp. 1142-1145; P. Ex. 25A at pp. 14-10-14-11.

150. Record at pp. 1096-1098, 1153-1154; P. Ex. 25A at pp. 14-11-14-19.

151. Record at 1100-1103, 1221-1223, 1278-1281; P. Ex. 25A, pp. 14-20-14-21.

152. See N. 142, supra.

153. Record at p. 2197; P. Ex. 25A at p. 14-21.

154. P. Ex. 25A at p. 3-3.

155. Record at p. 2204.

156. Record at pp. 2206-2207 (Q. So O&R did not operate the plant in a way to maximize its value?...A. It doesn't affect its profitability if it runs Bowline at zero percent or a hundred percent. It's a rate-based regulated utility and it doesn't earn on how much it runs a particular plant ").

157. Record at 2210 (" Q. Well, does the fact that Mirant, in fact, no longer a regulated utility, is operating the plant at 16 percent, raise any concern in your mind as to the reliability of the data that you received from (Dr. Makovich)? A. No. sir. No, not at all ").

158. As noted by Mr. Remsha when asked to account for the volatility of post-NYISO markets, " electric prices tended to be less stable than in the past again, primarily because we were in

a deregulated marketplace where the price of electricity has been determined by supply, demand and competition "[Record at p. 2177]. This observation undercuts the foundation of Petitioners' income [DCF] approach.

159. P. Reply Memo. at pp. 37-38.

160. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at p. 529.

161. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at p. 417.

162. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000) at p. 115.

163. Lee & LeForestier, Review and Reduction of Real Property Assessments in New York, N.Y.S.B.A. (1988), (2000 Supp), § 1.04.

164. P. Ex. 25A at pp. 13-1-13-16, 17-1-17-9, 18-1-18-8, 19-1-19-8. Both Petitioners' and Respondents' appraiser agreed that there were insufficient comparable sales of generating facilities to apply a sales comparison approach until January 1, 2000 [R. Ex. Y, pp. 55-61; Record at pp. 1075-1078].

165. Record at pp. 1476-1484.

166. P. Ex. 25A at pp. 13-15-13-17.

167. P. Ex._25A at pp. 13-15-13-17 (" The electricity price/fuel price ratio in this analysis is the average market electricity price of the subject and the market gas/oil price. The higher the ratio, the more profitable the facility. In this analysis the electricity price represents the average annual NYISO Zone G electricity price of each day as reported by Platt's Megawatt Daily based on a capacity factor of 10% ").

168. P. Ex. 25A at p. 13-16; P. Memo. I at p. 41 (" For all stations, he applied a constant capacity factor of ten percent to make sure that each comparison was consistent for each generation station ").

169. P. Ex. 25A at 13-19.

170. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at pp. 349-351.

171. **Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000) at p. 45.**

172. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at p. 357.

173. Record at pp. 1295-1297; P. Exs. 25A at pp. 15-8 to 15-10; 25E, App. M at pp. 192-196.

174. Record at pp. 1295, 1311-1312; P. Exs. 25A at p. 15-8-15-10; 25E, App. M at p. 197.

175. Record at pp. 682-688, 1303-1304; P. Exs. 6A at pp. 5-7 to 5-9; 25A at pp. 15-9.

176. Record at p. 685; P. Exs 6A at pp. 5-7 to 5-9; 6B at App. I.

177. Record at pp. 668, 688; P. Exs. 6A at pp. 5-7 to 5-9; P. Ex 6B, App. I.

178. Record at p. 1304; P. Ex. 25A at p. 15-9.

179. Record at p. 1290; P. Ex. 6A, p. 5-1 to 5-7 (Tables 3-12); P. Ex. 25A at pp. 15-8 to 15-10.

180. Record at pp. 625-630; P. Exs. 5, 6A at p. 1-1, Section 5; 6B; 6C; 8-14.

181. Record at pp. 625, 626-630; P. Exs 6A, Section 5 (Tables 3-12); 8-14.

182. Record at p. 594; P. Ex 10 at p. C000232.

183. Record at pp. 616-633; P. Ex. 12, App. F at pp. F000010, F000021 (line 626).

184. Record at pp. 1292, 1318; P. Ex. 25A at pp. 15-9-15-10.

185. Record at pp. 1372-1380; P. Ex. 25A at pp. 15-10-15-12.

186. Record at pp. 1321-1323; P. Exs. 25A at p. 15-10-15-12; 25E, App. M.

187. Record at pp. 1275, 1323-1324; P Exs. 25A at pp. 15-10-15-12; 25C, App. G.

188. R. Ex Y at p. 31.

189. Record at pp. 2714-2718.

190. R Exs. Y, App. D; Z-2, App. D; Record at pp. 2726-2740.

191. R. Exs. Y, App. D; Z-2, App. D; Record at pp. 2755-2783.

192. Record at pp. 2783-2820.

193. In prior proceedings wherein Mr. Sansoucy testified as an expert, he specifically rejected the TOC approach [See e.g., Niagara Mohawk Power Corporation v. Town of Bethlehem , 225 A.D.2d 841, 639 N.Y.S.2d 492 (3d Dept. 1996); Niagara Mohawk Power Corporation v. City of Cohoes, supra]. In Bethlehem, supra, Mr. Sansoucy testified that it was his experience that the Handy Whitman Indices are unreliable to achieve cost since they do not take into account various soft costs. Both the trial and appellate courts in Bethlehem rejected the use of the Handy Whitman Index (North Atlantic Region). In Cohoes, supra, it was Mr. Sansoucy's position that the exclusive use of recognized trending indices to determine replacement costs was unreliable [Record at pp. 3865-3868].

194. Record at pp. 2943(7)-2944(16).

195. R Ex. BB at p. D-16.

196. Record at pp. 3119-3124, 3138-3146.

197. Record at pp. 3136-3141.

198. Record at pp. 3132(3)-3134(16), 3136(18)-3140(24), 3157; R. Ex Y, App. D at p. D-2.

199. R.Exs Y; Z-1, App. D at p. D-1.

200. Record at pp. 2674(25)-2676(3), 3119,3120(2-25),3121(17)-3123(25),3275(3)-3281(9); P. Ex. 59; R. Exs. Y; Z-1, App. D.

201. Record at pp. 3274(11)-3281(9),2933(11)-2935(25); R. Exs. Y, App. D; Z-1, App. D.

202. Record at pp. 2660-2663.3274,2933-2936; R. Exs. Y, App. D; Z-1, App. D.

203. Record at p. 2660(3-13); R. Ex. X.

204. Record at pp. 2660(21)-2663(24), 3284(2-22),3954(23)-3955(23). This Court does acknowledge the fact that Mr. Sansoucy has had many years of engineering experience which includes work on the financing, design, construction, and operation of properties with components similar to those of Bowline, such as hydroelectric power plants [Record at pp. 2595(6)-2598(4), 2598(4)-2599(18)] as well as working with cost data for steam plants. (Rec., pp. 2624(16)-2625(16)]. Clearly Mr. Sansoucy need not have personally designed, built, financed or managed the construction of a gas/oil fired steam plant to be qualified to offer evidence on reconstruction costs and incurable physical depreciation [See e.g., City of Troy v. Town of Pittstown, Brittonkill Cent. Sch. Dist., 306 A.D.2d 718, 762 N.Y.S.2d 651 (3d Dept. 2003)]. It is certainly well-settled that an engineer may opine RCN and physical depreciation in a tax certiorari matter [See e.g., Northville Industries Corp. v. Board of Assessors of the Town of Riverhead, 243 S.D.2d 135, 531 N.Y.S.2d 592 (2d Dept. 1988); S.S.& K Realty Corp. v. Finance Admin. Of the City of New York, 82 A.D.2d 808, 439 N.Y.S.2d 207 (2d Dept. 1981)].

205. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000), at pp. 89-90.

206. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000) at p. 90. The court in Matter of Consolidated Edison Company of New York, Inc. v. City of New York , Index No. 8564/98 (Kings Sup. October 5, 2004)(Hon. Michael Pesce)(p. 9-14), found that the use of a Combined Cycle Generating Turbine plant [" CCGT "] plant, as the replacement for a similarly aged oil/gas steam turbine facility to Bowline, was required to properly compute functional obsolescence for excess construction (and excess operating costs)).

207. The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at p. 350.

208. Record at pp. 725, 1309-1310; PE 25A at pp. 15-14.

209. Record at pp. 1306-1310, 1312-1325; P. Ex 25A at pp. 15-14 to 15-17.

210. Record at p. 1326; P. Exs 7, Sections 1.2, 1.3, and 1.4; 25A at p. 15-14; R. Ex. Y, App. E (worksheets E-6 to E-9).

211. Record at pp. 730-731; P. Ex. 7, Section 1.2.

212. Record at pp. 730-734; P. Ex. 7 at pp. 1-4.

213. Record at p. 743; P. Ex. 7A, Sections 2,3 and 5.

214. P. Ex. 7, Section 8.

215. Record at p. 745; P. Ex. 7, App. A and C.

216. Record at p. 745; P. Ex. 7, App. D.

217. Record at pp. 747-749.

218. Record at p. 757.

219. P. Ex. 7, App. A.

220. Record at p. 765; P. Ex. 16 (line 491).

221. P. Ex. 7 (Tables 2-10); App. A.

222. Record at pp. 1319-24; P. Ex. 25A at pp. 15-15-15-16.

223. Record at pp. 1312-1317, 1324; P. Exs. 25A, p. 15-17; 28 at pp. 15-17.

224. Record at pp. 3506-3507.

225. R. Ex Y at pp. 35-36.

226. Record at pp. 3516(14)-3517(5).

227. The EIA is a statistical agent for the U. S. Department of Energy that provides independent data forecasting and analysis.

228. Record at pp. 3505(23)-3507(25), 3509(25)-3517(5).

229. Record at p. 3516(8-13); R. Exs. Y, p. 39-43; Z-1 at pp. 41-42.

230. Record at pp. 3876(18)-387914), 40246)-4026(23)).

231. Record at pp. 3874(4-25), 3962(18)-3963(24). See also N. 98, supra.

232. Record at pp. 3510(11)-3511(25), 3872(5)-3874(9); R. Ex. Y, App. E at p. E-7.

233. Record at pp. 3879(1)-3884(20).

234. Record at p. 3887(1-18); R. Ex. Z2, App. E. Worksheet E-2.

235. Record at p. 3888(9-15); R, Ex. Z-2, worksheet E-2.

236. Record at pp. 3910(15)-3912(21), 3962(5)-3968(20), 3973(6)-3976(2); R. Ex. Y, App. E at pp. E-12-E-13.

237. Record at pp. 3870(10)-3871(15),3894(11-22),3923(11-25), 4026(1-23), R. Ex. Y, App. E, Worksheet E-2.

238. Record at pp. 4008(6)-4022(15); R. Ex. Y, App. E, worksheets E-6 to E-9. He similarly contradicted himself in the application of his income approach. For purposes of determining capacity prices, Mr. Walker did not use an oil/gas steam turbine, he used the modern technology of a combustion turbine to set the capacity prices when the market was in equilibrium [Record at pp. 3644-3646; R. Ex. Z-1 at p. 65].

239. P. Ex 25A, Section 3-2; Record at pp. 147(20)-148(13).

240. P. Ex. 7, design 7221 on p. 2-1; Record at pp. 908(6)-909(11).

241. P. Ex 7 at p. 2-1.

242. Record at pp. 909(12)-910(1).

243. Record at p. 909(3-12).

244. Record at pp 1564(6)-1565(4).

245. P. Ex. 7, Tables 2 through 10.

246. P. Ex. 7, Section 2, p. 2.1, Tables 2 through 10; App. A; Record at pp. 911-912.

247. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000)at pp. 70, 84. See also The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2001) at pp. 398-399.

248. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000)at p. 74.

249. Record at p. 3517.

250. Record at p. 3519.

251. Record at p. 2966(3-11); R. Ex. Y, D-10.

252. Record at pp. 3134(7)-3135(16).

253. Record at pp. 3149(18)-3950(19), 3151(14-18); R.Ex. Y, App. D at p. D-12.

254. Record at p. 3127(13-15).

255. Record at pp. 3129(20)-3130(3).

256. Record at p. 3155(4-25).

257. Record at p. 3127(13-15); R. Ex. Y, App. D.

258. Record at pp. 3168(3)-3177(17); R. Ex. Z-2, App. D at p. D-76.

259. Record at pp. 2915, 1966-1979.

260. P. Ex 6A, Section 6.

261. Record at pp. 3869(5-18), 3870(1-5); R. Ex. Y, App. E at pp. E-2-E-3.

262. Record at p. 3519(4-8)). See also: The Appraisal of Real Estate, Appraisal Institute, 12th Edition (2000) at p. 348.

263. Record at pp. 3519(8-11), 3859(19-21), 3860(305); R Ex. Y, App. E at pp. E-2, E-3.

264. Record at pp. 3860(20-24), 3867(14-20).

265. Record at pp. 3867(21)-3869(18).

266. Record at pp. 1384-1387, 1393-1394, 1417-1418; P. Ex. 25A at p. 15-17; P.Exs. 25E, App. M at p. 208; 25F, App. P at pp. 3-50.

267. Record at p. 1404; P. Ex. 6A at p. 6-2.

268. Record at p. 1393; P. Exs. 25A at p. 15-17-15-19; 25F, App. P.

269. Record at pp. 1401, 1403; P. Ex. 25F, App. P.

270. P. Ex. 25A at pp. 15-19.

271. Record at pp. 1385-1393; P. Exs. 25A at pp. 15-17,15-19; 25E, App. M at p. 214.

272. Record at pp. 1415-1416; P. Ex. 25A at p. 15-19.

273. Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, American Society of Appraisers (2000)at p. 99.

274. Record at pp. 3913(1-24), 3964(11)-3965(25).

275. Record at pp. 4008(6)-4022(15); R. Ex. Y, App. E (Worksheets E-6 to E-9).

276. Record at pp. 4022(5)-4023(20), 4024(6-9), 4060; R. Ex. Y, App. E, Worksheets E-6 to E-9.

277. Record at pp. 4068(4)-4070(18).

279. Record at pp. 4043(1)-4048(25); P. Ex. 67.

280. R. Ex. Z-1 at p. 50.

281. Record at pp. 3852-3858.

282. R. Exs. Y, Z-2, App. E; JJ, Tab B.

283. Record at pp. 3855-3857.

284. Record at pp. 1420,1431,1436; P. Ex. 25A at pp. 15-20 to 15-25.

285. P. Exs. 25A at p. 4-10; 25G, App. R; Record at pp. 1420,1425,1426,1431,1432.

286. Record at pp. 1425-1427; P. Ex. 25A at p. 4-10.

287. Record at p. 1433; P. Exs. 25A at p. 15-22; 25G App. R.

288. Record at p. 1435; P. Ex. 25A at p. 15-23.

289. Record at pp. 1436-1437; P. Exs. 25A at p. 15-23, 15-24, 15-25; 25G, App. R.

290. Record at pp. 1438,1439; P. Exs. 25A at p. 15-23, 15-24, 15-25; 25G, App. R.

291. Record at p. 1445; P. Exs. 25A, p. 15-25; 25G, App. R at pp. 56-60.

292. Record at p. 1446.

293. P. Ex 25G, App. R at p. 1.

294. Record at pp. 1439-1430.

295. Record at p. 1573.

296. Record at p. 1446.

297. Record at pp. 3527(18)-3528(20).

298. Record at p. 3528.

299. Record at pp. 3528(14)-3533(15).

300. Record at p. 3533.

301. Record at pp. 3910(15)-3912(21), 3962(5)-3968(20), 3973(60-3976(2); R. Ex. Y, App. E at pp. E-7-E-13.

302. R. Ex Y, App. E at pp. E-12, E-13.

303. Record at pp. 3936(1)-3939(25), 3944(2)-3952(24).

304. Record at p 4025.

305. Record at p. 1333.

306. Record at pp. 1336-1340; P. Ex. 25A at pp. 15-29; App. D at pp. 1-10.

307. Record at p. 1339; P. Exs. 25A at p. 15-28; 28 at p. 15-28.

308. Record at p. 1345; P. Ex. 28 at pp. 15-28; P. Ex. 25G, App. S at pp. 1-4.

309. Record at p. 500 (2-14).

310. Record at p. 912 (7-13).

311. Record at p. 797.

312. Record at p. 341.

313. P. Ex. 25D, App. J at p. 25.

314. Record at pp. 800-804.

315. P. Ex. 28 at the revised table for section 15-28 of Petitioner's cost approach.

316. Petitioners' Post Trial Memorandum Of Law On Moveable Machinery And Equipment dated February 15, 2006 [" P. Machinery Memo. "].

317. P. Machinery Memo. at p. 14.

318. Respondents' Post-Trial Memorandum Of Law On Moveable Machinery And Equipment dated March 21, 2006 [" R. Machinery Memo. "].

319. P. Machinery Memo. at p. 16; P. Exs. 6A at p. 1-9; 6D at App. T; Record at pp. 832-833.

320. **P. Ex. 1 at p. 5.**