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September 10, 2004

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Hon. Jaclyn A. Brilling Secretary New York State Public Service Commission Three Empire State Plaza Albany, New York 12223

RE: Case 04-E-0572 – Consolidated Edison Company of New York, Inc.- Electric Rates

lestimony

Dear Secretary Brilling:

On behalf of the New York Power Authority, enclosed for filing are fifteen (15) copies of the Direct Testimony and Exhibits of a panel of witnesses consisting of Dr. John Chamberlin, Don Bennett, and Timothy Lyons.

Thank you.

Very truly yours,

Ity P. Sheehan

Timothy P. Sheehan Managing Counsel

Enclosures cc: Active Party List (via email & U.S. Mail) DIALIC SERVICE. PUBLIC SERVICE. COMMISSION OSES FILES ALEANY 2004 SEP 10 PM 2:00

#### STATE OF NEW YORK PUBLIC SERVICE COMMISSION

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Case 04-E-0572 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service.

# Direct Testimony Of A Panel Consisting Of Dr. John Chamberlin, Don Bennett, And Timothy Lyons

## **On Behalf Of The New York Power Authority**

September 2004

## NYPA PANEL

# 1 I. INTRODUCTION AND PURPOSE OF TESTIMONY

2	Q.	Members of the Panel, please state your names and business addresses.
3	Α.	[Dr. John Chamberlin] My name is Dr. John Chamberlin. My business address is Quantec,
4		LLC, 212 E. Main Street, Suite G, Reedsburg, Wisconsin 53959.
5		[Don Bennett] My name is Don Bennett. My business address is Don Bennett Management
6		Consultant, Ltd., 4617 S. 3 <sup>rd</sup> Street, Arlington, Virginia 22204.
7		[Timothy S. Lyons] My name is Timothy S. Lyons. My business address is Quantec, LLC,
8		6 Ridgeland Road, Barrington, Rhode Island 02806.
9	Q.	Please summarize your professional and educational experience – and
10		whether you have testified before any state or federal regulatory agencies.
11	Α.	[Dr. John Chamberlin] I am Executive Vice President of Strategic Services for Quantec,
12		LLC., where I am responsible for utility rates, cost of service, and financial planning work.
13		Prior to joining Quantec in March 2003, I was with KEMA Management Consulting, formerly
14		XENERGY, Inc. Before that, I was Vice President, Strategy and Planning at PG&E Energy
15		Services, where I led development of market entry and evaluation models, assessed
16		product profitability, and evaluated the economic and financial aspects of regulatory and
17		market rules, among other things.
18		I joined PG&E Energy Services following the 1997 sale of the consulting company I co-
19		founded: Barakat and Chamberlin, Inc. (BCI). This 150-person firm was a national leader in
20		utility consulting for more than ten years. At BCI, I led the electric utility consulting practice,
21		and personally managed numerous rate, cost of service and related assignments for utilities

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#### NYPA PANEL

throughout North America. I have appeared in numerous regulatory proceedings during the
past 20 years, and have testified in several civil proceedings, and before several state
legislative bodies. I am the author of four books, numerous published articles and hundreds
of presentations on utility rate, cost of service and related issues. I hold a B.A. in
Economics from California State University at Chico, as well as an M.A. and a Ph.D. in
Economics from Washington State University. My resume is attached as part of Exhibit \_\_\_\_
(NYPA-1).

[Don Bennett] I am an independent management consultant, providing financial and 8 9 strategic management consulting services to the energy utilities industry and other infrastructure businesses. I have served the energy industry for 33 years, first as a financial 10 executive and, for the last 11 years, as a consultant. I was a partner at Arthur Andersen, 11 12 serving as the head of its National Utility Consulting Group before departing in 1997. Prior to entering consulting, I served in various financial management positions with The 13 Southern Company, the electric holding company in Atlanta, Georgia. I have a Bachelor of 14 Science degree in Industrial Management from the Georgia Institute of Technology (Atlanta, 15 Georgia) and an M.B.A. from the University of North Carolina at Chapel Hill. My resume is 16 attached as part of Exhibit \_\_\_ (NYPA-1). 17

[Timothy Lyons] I am Project Director for Quantec, LLC, where I am responsible for utility
 rates, cost of service, and other regulatory services. Prior to joining Quantec in June 2003, I
 was with KEMA Management Consulting, formerly XENERGY, Inc. Before that, I was Vice
 President of Marketing and Regulatory Affairs for Providence Gas Company. I was
 responsible for the development and implementation of all utility marketing, pricing, and
 regulatory programs. Previously, I was a Director of Rates and Revenue Analysis at Boston

### NYPA PANEL

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1		Gas Company (now part of KeySpan Energy), where I was responsible for the design,
2		regulatory approval, implementation, and administration of rates. I have testified before the
3		Massachusetts Department of Telecommunications and Energy and the Rhode Island
4		Public Utilities Commission. I received a B.A. in Mathematics and Economics from
5		St. Anselm College, an M.A. in Economics from Pennsylvania State University, and an
6		M.B.A. in Finance from Babson College. My resume is attached as part of Exhibit
7		(NYPA-1).
8		We note here that all of the exhibits accompanying our testimony have been prepared by us
9		or under our supervision.
10	Q.	What is the purpose of your testimony?
11	Α.	On behalf of the New York Power Authority ("NYPA"), the purpose of our testimony is to
12		present the findings of our review and analysis of Con Edison's rate case filing. We address
13		several revenue requirement and rate base issues involved in Con Edison's proposed rate
14		increase and the proposed allocation of that increase based upon the Electric Cost of
15		Service ("ECOS") study presented by its Electric Rate Panel.
16	11.	SUMMARY OF FINDINGS AND RECOMMENDATIONS
17	Q.	Please summarize the impact of Con Edison's proposed rate changes on NYPA's
18		governmental customers.
19	Α.	We would like to begin by highlighting the magnitude and source of the proposed rate
20		increase. As shown on Exhibit (NYPA-2), Page 1, Con Edison proposes to raise delivery
21		rates for NYPA's governmental customers by \$107.3 million – or 43% from current rates.
22		The proposed NYPA increase represents almost 20% of Con Edison's proposed \$567.9

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#### NYPA PANEL

1	million delivery rate increase for the 2006 rate year (i.e., 12-months ending March 31, 2006)
2	despite the fact that NYPA represents less than 10% of Con Edison's current Transmission
3	and Distribution (T&D) revenues and 14% of Con Edison's system peak load. To put this
4	another way, NYPA's 43% increase is more than twice that of Con Edison's other
5	customers, who (assuming the rate request is granted) will see an aggregate increase of
6	19% in their delivery rates. Of course, a 19% increase is sizable by any standard, but
7	nonetheless is dwarfed by the proposed 43% increase for NYPA's governmental customers.
8	This proposal to increase the NYPA tariff costs by 43% has a very substantial and extremely
9	burdensome impact on NYPA's municipal and other public customers that is unjustified
10	during a time of limited government resources and economic and energy marketplace
11	uncertainty.

# 12 Q. What are your overall recommendations regarding this increase?

A. We recommend a number of revenue requirement and ECOS adjustments that reduce the
 size of Con Edison's overall rate increase (by \$195.0 million), as well as reduce the size of
 the increase for NYPA's governmental (by \$71.4 million) and Economic Development
 Delivery Service/ Power for Jobs (EDDS/PFJ) (by \$0.5 million) customers.

17 Q. Have you examined the source of the disproportionate increase in NYPA's rates
 18 relative to Con Edison's other customers?

A. Yes. The disproportionate increase – whereby NYPA's governmental customers receive an
 increase that far exceeds that of Con Edison's other customers as a whole – is based on the
 results of Con Edison's 2002 Electric Cost of Service (ECOS) study and the "two-step"
 process it uses. The first step utilizes the ECOS study results to align class revenue
 responsibilities at the current rate levels. The second step allocates the proposed revenue

### NYPA PANEL

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1		requirement increase based on the realigned revenues. As a result of this two-step
2		process, the ECOS study results are responsible for approximately half of NYPA's proposed
3		rate increase, as shown on Exhibit (NYPA-2), Page 2. Specifically, the exhibit shows
4		that if NYPA did not have a purported revenue deficiency based on the 2002 ECOS, then
5		NYPA's proposed increase would be "only" \$54.6 million - based on Con Edison's proposed
6		\$567.9 million increase for the 2006 rate year. This is still a very sizable increase, but
7		substantially less than the proposed \$107.3 million.
8	Q.	What approach are you proposing?
9	Α.	For the reasons set forth below, we propose that any rate increase granted to Con Edison
10		should be allocated to the classes on an equal percentage basis (i.e., without reliance on
11		the 2002 ECOS results). Under our proposal, the rate increase would be allocated in the
12		manner shown on Exhibit (NYPA-2), Page 2, which reduces NYPA's share of the
13		proposed increase by \$52.7 million.
14	Q.	Please summarize your findings and recommendations regarding Con Edison's
15		proposed rate increase to NYPA's governmental customers.
16	Α.	Our findings and recommendations are as follows:
17		1. We believe that it would be inappropriate to use Con Edison's 2002 ECOS in this
18		proceeding. The proposed rate increase (or, for that matter, any future increase)
19		should not be based on Con Edison's ECOS study since the results do not follow the
20		most basic cost-causation principles. Further, Con Edison has provided no
21		explanation as to why the results are substantially different than the 1994 Con
22		Edison ECOS (presented in Case 96-E-0897) despite the fact that, according to Con
23		Edison, the "overall theory for these studies did not change [except for] numerous 5

# NYPA PANEL

1		incalculable minor changes" See Exhibit (NYPA-3), Pages 2-6. Accordingly,
2		we recommend that any rate increase granted to Con Edison should be spread
3		uniformly among the NYPA, EDDS/PFJ and Con Edison customer classes.
4	2.	Alternatively, failing outright dismissal of the ECOS results, we believe that the 2002
5		ECOS should be modified substantially to correct for several items. First, we
6		propose several adjustments based on the improper allocation of costs to NYPA,
7		such as Research and Development (R&D) expenses. Next, we recommend
8		changes to several key allocations, such as the high tension (D04) and low tension
9		(D08/D09) allocators, that better reflect cost-causation principles for all customers.
10		Finally, we have proposed certain "contemporaneous" adjustments to the ECOS
11		allocators that better reflect cost responsibility during the effective period of the
12		proposed rates. These "contemporaneous" adjustments more closely align costs to
13		the 2006 revenue requirements. At the proposed level of increase in revenue
14		requirements, our suggested changes would reduce NYPA's ECOS revenue
15		deficiency by \$41.0 million, as shown on Exhibit (NYPA-2), Page 3, thus all but
16		eliminating the ECOS revenue deficiency and the need for the two-step process.
17		Instead, the approved rate increase would be spread uniformly among the NYPA,
18		EDDS/PFJ and Con Edison classes, as shown on Exhibit (NYPA-2), Page 2.
19	3.	We also recommend that if the Commission decides to rely on the Con Edison's
20		2002 ECOS study, then the rate of return tolerance band used in the study should be
21		changed from +/-10% to +/-20%. The use of a tolerance band is a long-standing
22		practice at the Commission, generally within a range of +/-10% to +/-20% based on
23		the Commission's underlying confidence in the ECOS; its methodology, data and

#### NYPA PANEL

1		results. Based on the apparent instability of Con Edison's ECOS, its extreme
2		sensitivity to changes in assumptions and data, its lack of stable results from one
3		study to the next, and the substantial uncertainty regarding the ECOS impact of Con
4		Edison's proposed infrastructure investments, we recommend the use of a +/-20%
5		tolerance bandwidth. A +/-20% tolerance bandwidth would reduce NYPA's increase
6		by \$18.5 million, as shown on Exhibit (NYPA-2), Page 4, based on Con Edison's
7		proposed level of revenue requirement increase.
8	4.	We believe that the business risk that Con Edison incurs in serving NYPA is
9		sufficiently different from its overall business risk to warrant a separate, lower cost of
10		capital applied to the rate base allocated to NYPA. Adjusting for this factor alone
11		would reduce NYPA's 2002 ECOS deficiency by \$34.5 million, as shown on Exhibit
12		(NYPA-5). Further, the need to reflect a lower cost of capital for Con Edison's
13		service to NYPA is additional justification for not using the 2002 ECOS as a basis for
14		setting rates and, at the very least, supports widening the rate of return tolerance
15		bandwidth used in the 2002 ECOS.
16	5.	We also recommend several revenue requirement and rate base adjustments that

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will reduce Con Edison's overall proposed increase by \$195 million.

# III. GENERAL FAILINGS OF THE ELECTRIC COST OF SERVICE (ECOS) STUDY

### 20 Q. Please summarize your primary concern with the 2002 ECOS.

A. Our primary concern is that the 2002 ECOS does not accurately represent the true cost of
 service to NYPA's governmental customers. Our conclusion is based on the fact that the

#### NYPA PANEL

2002 ECOS allocates a disproportionate share of costs (and thus, a disproportionate share 1 of the rate increase) to NYPA. Our rationale is this: Con Edison states that the proposed 2 rate increase is driven in large part by significant load growth (see, e.g., Infrastructure 3 Investment Panel testimony on page 10, line 16, "Total electric demand in Con Edison's 4 service territory is growing at levels higher than anticipated when electric rates were last set 5 for Con Edison in 2000 and is placing substantial demands on the Company's electric 6 infrastructure."); hence, the need to add new transmission and distribution facilities. 7 However, NYPA is not the source of this substantial load growth. NYPA's load has been 8 growing by less than one percent each year, which falls well short of supporting the 9 magnitude of infrastructure spending proposed by Con Edison. See Exhibit \_\_ (NYPA-3), 10 Page 1. In fact, if the rest of the system grew at the rate of NYPA, we believe there would 11 be a much diminished need for most of the proposed infrastructure investments related to 12 load growth. 13

Thus, one would expect (based on long-standing ratemaking convention) that those most responsible for the needed investments would receive the largest share of the allocated costs and proposed rate increase – based on the rationale that they are most responsible for the increased cost of service. Instead, in Con Edison's ECOS, NYPA receives the disproportionate share of the allocated costs. Moreover, NYPA receives the highest proposed increase – by a factor of more than two. In the end, this result is simply unfair and inconsistent with generally accepted ratemaking principles.

In this regard, in the 2002 ECOS, Con Edison customer billing demand and associated
 revenues appear to be growing at a rate faster than the underlying cost drivers, which has
 resulted in a relatively higher rate of return for service to Con Edison's direct customers and

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1		a lower rate of return for its NYPA service. That Con Edison customer billing demands and
2		revenues are growing at a faster rate than NYPA while the Company's cost allocators in the
3		study are declining undermines the validity of the 2002 ECOS. In other words, since
4		NYPA's demand is growing proportionately less than Con Edison's, as shown on Exhibit
5		(NYPA-3), Page 1, one would reasonably expect that NYPA's allocation percentages would
6		be growing less as well. As discussed below, this is not the case. The 2002 ECOS
7		increases the proportionate amount of costs allocated to NYPA.
8		Thus, while NYPA revenue levels are growing proportionately less than Con Edison,
9		NYPA's allocated cost levels are rising – which in turn has produced the lower rate of return.
10		The bottom line is that the 2002 ECOS makes NYPA, as a result of its relatively "slow"
11		revenue growth, responsible for a higher share of the overall cost of service. This effect is
12		completely artificial and not reflective of the actual underlying cost causation.
13	Q.	What would you have expected the 2002 ECOS to show?
14	Α.	At most, we would have expected NYPA to receive a proportionate share of the increase
15		5. C. Elizaberra de NVDA worked together in the most report rate appart (Capp No. 96 E
16		since Con Edison and NYPA worked together in the most recent rate case (Case No. 90-E-
		0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con
17		0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con Edison's Rate Panel could not explain how NYPA has gone from equalized rates of return
17 18		0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con Edison's Rate Panel could not explain how NYPA has gone from equalized rates of return as a result of the 1994 ECOS to a \$43.3 million deficiency in the 2002 ECOS. See Exhibit
17 18 19		Since Con Edison and NYPA worked together in the most recent rate case (Case No. 96-E- 0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con Edison's Rate Panel could not explain how NYPA has gone from equalized rates of return as a result of the 1994 ECOS to a \$43.3 million deficiency in the 2002 ECOS. See Exhibit (NYPA- 2), Pages 5-7.
17 18 19 20	Q.	<ul> <li>since Con Edison and NYPA worked together in the most recent rate case (Case No. 96-E-0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con Edison's Rate Panel could not explain how NYPA has gone from equalized rates of return as a result of the 1994 ECOS to a \$43.3 million deficiency in the 2002 ECOS. See Exhibit(NYPA- 2), Pages 5-7.</li> <li>What is the basis for your statement that NYPA should be at equalized rates of return</li> </ul>
17 18 19 20 21	Q.	since Con Edison and NYPA worked together in the most recent rate case (Case No. 90-E- 0897) to eliminate NYPA's then \$22 million revenue deficiency. It also is surprising that Con Edison's Rate Panel could not explain how NYPA has gone from equalized rates of return as a result of the 1994 ECOS to a \$43.3 million deficiency in the 2002 ECOS. See Exhibit (NYPA- 2), Pages 5-7. What is the basis for your statement that NYPA should be at equalized rates of return based on the 1994 ECOS?

23 Edison, and other parties entered into a settlement agreement that addressed the then \$22

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### NYPA PANEL

1		million revenue deficiency indicated by the 1994 ECOS presented in that case. A \$9 million
2		rate increase along with elimination of the Metropolitan Transportation Authority's 25 Cycle
3		Service brought NYPA's revenue contribution to the overall average return for the Con
4		Edison system, consistent with the tolerance bandwidth.
5	Q.	Why do you believe that the 2002 ECOS does not accurately represent the cost of
6		serving NYPA customers?
7	Α.	The 2002 ECOS does not appear to follow basic ratemaking convention. In a properly
8		conducted cost of service study, costs are allocated to customers in a manner consistent
9		with how the costs are incurred. For example, if load growth is driving the need for new
10		infrastructure investments, then it is appropriate to allocate costs to those classes that are
11		most responsible for the load growth.
12		As stated by Con Edison, a primary driver behind this rate increase is Con Edison's need for
13		new transmission and distribution investments to address the high rate of load growth
14		experienced over the past decade. These investments, Con Edison argues, are necessary
15		to ensure a safe and reliable electric system. Thus, as a matter of ratemaking policy, one
16		would expect that a proportionate share of the increase would fall on those customers who
17		have been most responsible for the load growth. Doing otherwise would violate a generally
18		accepted ratemaking convention that those customers who cause the costs to be incurred
19		should be responsible for paying the costs.

- 20 Q. Did you find this to be the case?
- A. No. In fact, we found just the opposite. Those customers with the lowest growth rates (i.e.,
   NYPA's governmental customers) receive proportionately the highest allocation of costs.

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1	-	This finding alone leads us to conclude that the 2002 ECOS is not suitable for use in setting
2		rates in this proceeding.
3	Q.	Please explain your findings.
4	Α.	Our findings are summarized in the table below – and provided in more detail on Exhibit
5		(NYPA-3), Page 1. In particular, our findings show that Con Edison customer billing
6		demand has increased by approximately 25% since 1994 – in contrast to the NYPA
7		customer billing demand increase of only 5%. Yet, in the ECOS, NYPA's Transmission and
8		Distribution (T&D) revenue requirement has increased by 12% - more than twice the rate of
9		its growth in billing demand. On the other hand, Con Edison customer T&D revenue
10		requirement has increased by only 17% while its billing demand has increased by 25%. As
11		a result, the Con Edison customer incremental revenue requirement is only \$9.19 per kW for
12		almost 32,000 MW of new load. This is in contrast to the NYPA customer incremental
13		revenue requirement of \$26.68 per kW for only a little more than 1,000 MW of new load.
14		Table 1
15		Comparison of ECOS Study Results
16		Con Edison Customers NYPA Customers
17		1994 2002 Change 1994 2002 Change

17 \$28,134 \$2,019,786 \$293,616 \$227,974 \$256,107 T&D Revenue \$1,726,170 18 12% 17% Requirement (\$000) 31,946 20,867 21,921 1,054 161,998 130,052 Billing Demand (MW) 19 5% 25% \$9.19 \$26.68 20 Revenue Requirement/ Kw

There is no plausible explanation for this difference. One of the primary drivers of Con
Edison's proposed \$567 million rate increase is load growth – and NYPA is responsible for
only 5% of the added load since the last rate case. Yet, somehow the 2002 ECOS suggests

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that NYPA's customers should pay (for their incremental load) an amount that is almost <u>3</u>
 times that of Con Edison's customers.

Q. Can the difference between Con Edison's (\$9.19 per kW) and NYPA's (\$26.68 per kW)
 incremental revenue requirement be explained by changes in ECOS Study.
 methodology?

No. Con Edison has stated that it has not implemented substantial changes to its ECOS 6 Α. methodology. According to Con Edison, "...the overall theory for [the] studies did not 7 change [except for] numerous incalculable minor changes..." See Exhibit \_\_ (NYPA-3), 8 Page 2-6. According to Con Edison, this was also true for all of the major cost of service 9 study components: functionalization, classification and allocation, and the class demand 10 studies. In fact, when we inquired about specific changes to the three most significant 11 ECOS allocators, D03 (which allocates transmission costs), D04 (which allocates high 12 tension distribution cost), and D08/D09 (which allocates low tension distribution costs), Con 13 Edison stated that the allocation methodology used in the 2002 study was the same as that 14 used in the 1994 study - except for separation of low tension demands into overhead and 15 underground in the 1994 study. See Exhibit \_\_ (NYPA-3), Pages 2-8. This change in 16 allocation methodology, however, does not appear to explain such differences since the 17 relative difference between the D08 and D09 allocators in the 1994 ECOS was minor - less 18 than one-tenth of one percent. See Exhibit \_\_ (NYPA-3), Page 9. 19

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Q. Has the Con Edison Rate Panel been able to explain these differences?

A. No. In response to a question from the Administrative Law Judge, a member of the Con
 Edison Rate Panel could not explain why the claimed revenue deficiency for NYPA has

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1		increased in comparison with the results of the prior studies. See Exhibit (NYPA-2),
2		Pages 5-7.
3	Q.	Is NYPA's Panel able to explain these differences?
4	Α.	Yes. As discussed, since NYPA's billing demands have been growing more slowly relative
5		to Con Edison's, so too must NYPA's revenues have been growing more slowly. Thus, a
6		relative lower level of revenues - assuming for the moment a constant cost of service -
7		would necessarily lead to a lower overall rate of return.
8	Q.	But wouldn't the slow growth in revenues necessarily lead to slow growth in the cost
9		of service?
10	A.	That is what we expected. Instead, as Table 1 shows, the slow growth in revenue has been
11		accompanied by a disproportionate growth in allocated costs. For NYPA, as an example,
12		"costs" (as allocated in the ECOS) have grown by 12% while revenues have grown by only
13		5%. As stated earlier, there is no justification or support for this inconsistency – and it is
14		further evidence that the 2002 ECOS should not be relied upon in this proceeding.
15		From a different perspective, since NYPA's demand is growing proportionately less than
16		Con Edison's, one would expect that NYPA's allocation percentages are growing less as
17		well. As shown below, this is not the case. Rather, the 2002 ECOS study results increase
18		the amount of costs allocated to NYPA.
19		Thus, while NYPA revenue levels are growing proportionately less than Con Edison, its
20		allocated cost levels are rising – which in turn has produced the lower rate of return. The
21		point is that the 2002 ECOS makes NYPA, as a result of its relatively "slow" revenue growth,

# NYPA PANEL

1		responsible for a higher share of the overall cost of service. This effect is totally artificial
2		and not reflective of the underlying cost causation.
3	Q.	Has Con Edison explained why NYPA's revenues are growing proportionately less
4		while its costs are growing proportionately more?
5	Α.	No – and this should represent a major concern since any customer class may be faced
6		with a similar problem in the future if these ECOS results are reversed, causing further
7		instability and volatility in Con Edison's rates.
8	Q.	Please explain what you mean by saying that NYPA's allocation percentages are
9		growing.
10	A.	We compared the allocation factors used in the 1994 ECOS to those used in the 2002
11		ECOS. The results, which are summarized below and shown in more detail on Exhibit
12		(NYPA-3), Page 9, show a modest net increase in the allocation percentages (and thus,
13		higher costs) to NYPA. The analysis provides some explanation, though not a rationale, for
14		a small portion of NYPA's ECOS revenue deficiency.

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#### NYPA PANEL

# Table 2

Comparison of ECOS Allocators

Allocator	1994 ECOS Allocation (%)	2002 ECOS Allocation (%)	Percentage Change (%)	Cost Allocation Change (\$Million)
D03 (Transmission)	14.55%	14.22%	-2.25%	(\$1.3) Mil.
D04 (Sub-transmission)	14.92%	14.67%	-1.62%	(\$1.9) Mil.
D08 (Distribution)	8.49%	9.02%	6.28%	\$0.6 Mil <u>.</u>
D09 (Distribution)	8.54%	9.02%	5.57%	<u>\$3.1 Mil.</u>
Total Change in Allocated Costs				\$0.5 Mil.

#### 9 Q. Did you examine any other components?

Yes, we also looked at the changing functionalization of Con Edison's investments between 10 Α. 1994 and 2002. Our thinking was that perhaps Con Edison's rate base has increased in 11 those areas where NYPA receives a proportionately higher allocation amount, and 12 decreased in those areas where NYPA receives a proportionately lower allocation amount. 13 The results of our functionalization analysis are shown on Exhibit \_\_ (NYPA-3), Pages 10-14 11. The results are somewhat mixed. The rate base analysis, included in Exhibit \_\_\_\_ 15 (NYPA-3), Page 10, shows that NYPA's cost of service should actually be going down. 16 Transmission investments (where NYPA receives an allocation of 14%) are declining, while 17 distribution investments (where NYPA receives an allocation of approximately 9%) are 18 rising. However, the O&M analysis, which is included in Exhibit \_\_ (NYPA-3), Page 11, 19 shows just the opposite - i.e., transmission-related operating costs are rising while 20 distribution operating costs are falling. The net impact of the rate base and O&M cost 21 functionalization appears to be a slight increase to NYPA's overall allocated cost of service. 22

#### NYPA PANEL

1	Q.	Please summarize your general conclusions about the 2002 ECOS.
2	Α.	We conclude that the 2002 ECOS cannot be relied upon for setting rates in this proceeding.
3		In the 2002 ECOS, the relative relationship between NYPA revenues and costs has
4		declined significantly such that NYPA is showing a substantial revenue deficiency. This
5		decline and resulting revenue deficiency has been neither supported nor explained in Con
6		Edison's filing.
7		Further, Con Edison's proposed rate increase purportedly is needed to support substantial
8		infrastructure investments necessary to meet load growth. However, NYPA's governmental
9		customers have not been primarily responsible for such load growth; and thus, should not
10		have to pay a disproportionately higher amount for those investments. The fact that the
11		2002 ECOS has NYPA bearing a disproportionately higher amount for these investments
12		undermines the integrity of the ECOS and also breaks with long-standing ratemaking
13		convention that those customers who cause the costs to be incurred should be responsible
14		for paying the costs.
15	IV.	SPECIFIC FAILINGS OF THE ELECTRIC COST OF SERVICE STUDY
16		(ECOS)

# 17 Q. Would you please state your specific concerns regarding the 2002 ECOS?

- 18 A. We have the following specific concerns regarding the 2002 ECOS.
- 191. NYPA's 2002 ECOS revenue deficiency should not be based on the actual 2002 system20rate of return of 9.65%. In determining any such deficiency, it should be based upon the

### NYPA PANEL

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1		rate of return authorized for the rates-in-effect period. Otherwise, NYPA will be charged,
2		during 2006, for revenues allegedly owed, but not billed to NYPA during 2002.
3	2.	Con Edison's approach of taking the higher of the summer and winter Non-Coincident
4		Peak (NCP), except for SC-7, SC-12 and SC-12 (TOD) service classes, has no
5		analytical basis, and appears to be inconsistent with Con Edison's planning approach
6		and generally accepted rate design principles.
7	3.	Con Edison's approach of taking the average of the Individual Customer Maximum
8		Demands (ICMD) and NCP and including a diversity adjustment for the residential
9		classes has no analytical basis, and appears to be inconsistent with Con Edison's
10		planning approach and generally accepted rate design principles.
11	4.	Con Edison's 2002 ECOS improperly excludes NYPA's allocation of congestion rents.
12	5.	Con Edison allocates R&D costs to NYPA in the same manner as its other customers,
13		without regard for the fact that NYPA also pays dues to the same R&D organizations,
14		namely, EPRI and NYSERDA.
15	6.	Con Edison does not adjust for the change in functionalization between 2002 and 2006
16		despite the fact that the infrastructure plans are designed to invest more heavily in
17		distribution plant (for which NYPA receives a smaller allocation) and less heavily in
18		transmission plant (for which NYPA receives a larger allocation).
19	7.	Con Edison does not adjust for changes in customer demand between 2002 and 2006
20		despite the fact that Con Edison's customers are growing at a faster rate than NYPA's
21		customers - and thus should be allocated proportionately more of the infrastructure
22		investment designed to address future load growth.

#### NYPA PANEL

1	To address these concerns, we have recommended changes that would reduce NYPA's
2	ECOS revenue deficiency by \$41.0 million - all but eliminating the need for the two-step
3	process used by Con Edison.

# Q. Would you please explain your position regarding the rate of return used in the 2002 5 ECOS in more detail?

Con Edison calculates NYPA's deficiency based on the actual 2002 rate of return of 9.65%. 6 Α. This approach inappropriately increases NYPA's revenue deficiency by establishing a rate 7 of return target that exceeds even Con Edison's proposed return in this case of 8.98%. We 8 recommend that the revenue deficiency analysis be based on the rate of return authorized 9 during the effective period for the new rates - i.e., the rate of return approved by the 10 Commission. For illustration purposes, we have assumed that the rate of return during the 11 effective period for the new rates is the proposed rate of return (i.e., 8.98%). As shown in 12 Exhibit \_\_\_\_ (NYPA-4), Page 1, the impact of our recommended approach would lower 13 NYPA's revenue deficiency by \$9.5 million. 14

There is no basis for using the actual 2002 rate of return. The theoretical problems with this approach are exposed if we assume for the moment that Con Edison's proposed rate of return for the rate year is 5.94% - which is the same as NYPA's in the 2002 ECOS. In these circumstances, NYPA would show a revenue deficiency in the ECOS (because the deficiency would be based on the historic rate of return) while at the same time NYPA would be generating a rate of return equal to Con Edison's proposed rate of return of 5.94% (continuing with our example).

22 The fact that Con Edison seeks a lower rate of return in this case than that shown in its 23 ECOS strongly suggests that revenue and cost information has changed significantly

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#### NYPA PANEL

between the historic year (2002) and the projected year (2006). Con Edison would like us to 1 believe that the 2002 revenue and cost relationships carry forward to 2006 without providing 2 any support that this is a valid assumption. In fact, without any evidence substantiating the 3 relationship between the 2002 ECOS and a more contemporaneous 2006 ECOS, the use of 4 the 2002 rate of return borders on retroactive ratemaking. 5 We do not believe that simply relying on 2002 data to support 2006 revenue requirements 6 without any attempt to compare revenue and cost structures is appropriate. Therefore, to 7 address our concerns about overstating the revenue deficiency and possible retroactive 8

ratemaking, we recommend that the NYPA revenue deficiency (if any) be based on the rate 9 of return authorized during the effective period for the new rates - i.e., the rate of return 10 11 approved by the Commission.

#### Would you please explain your position regarding the high tension allocator used in 12 Q. the 2002 ECOS in more detail? 13

Con Edison's proposal to allocate high tension costs on the basis of the proposed D04 14 Α. allocator is inappropriate. This allocation factor represents the highest summer or winter 15 established demands for all Con Edison service classes except for the SC-7, SC-12 and 16 SC-12 (TOD) service classes, where summer-only demands are used. We believe the use 17 of the winter demands is inappropriate, as is the special treatment for service class SC-7, 18 SC-12 and SC-12 (TOD). As shown on Exhibit \_\_ (NYPA-4), Page 2-3, the impact of our 19 recommended approach would lower NYPA's ECOS revenue deficiency by \$0.5 million. 20 There are no studies or analyses supporting Con Edison's D04 allocator in this proceeding. 21 Nothing has been presented to support the premise that system planners have substantially 22 integrated winter demands into their design when designing Con Edison's high tension

#### NYPA PANEL

system. In fact, the evidence is to the contrary. For those classes with substantially higher
 winter peaks (relative to their summer peaks), Con Edison relies only on the summer peaks.
 This approach (of using just the summer peaks) is actually consistent with Con Edison's
 statement that "...the high tension system is generally summer peaking." See Exhibit \_\_\_\_
 (NYPA-4), Pages 4-5.

Using summer peaks is also consistent with the National Association of Regulatory Utility
Commissioners' (NARUC) Electric Utility Cost Allocation Manual, January 1992, page 97,
which states, "The load diversity at distribution substations and primary feeders is usually
high. For this reason, customer-class peaks are normally used for the allocation of these
facilities." Thus, we recommend modifying Con Edison's highest of summer/ winter NCP to
use the summer NCP only.

# Q. Would you please explain your position regarding the low tension allocator used in the 2002 ECOS in more detail?

Con Edison's proposal to allocate low tension costs on the basis of the proposed D08/D09 14 Α. allocator is inappropriate. The allocation factor is based on the average of non-coincident 15 maximum 60 cycle class demands and individual customer billing demands at the point of 16 input to the low tension network line transformers for summer and winter seasons. A 17 special adjustment to this allocator is made for the Con Edison service classes SC-1, SC-1 18 (WHTG) and SC-7 to allow for the diversity of individual customer loads in multiple 19 dwellings. No adjustments were made for NYPA customers. The D08/D09 allocator was 20 developed using a 75% weighting of the non-coincident demands and 25% of the billing 21 demands for these three classes. 22

#### NYPA PANEL

We believe that the averaging of the NCP and ICMD for developing the D08/D09 allocator is 1 inappropriate. We also believe that the special diversity adjustment made for certain rate 2 classes is inappropriate. First, Con Edison has produced no studies or analyses that 3 support the D08/D09 allocator in this proceeding. Specifically, nothing has been presented 4 to support the premise that system planners rely on the NCP demands for designing the low 5 tension system. It is apparent that Con Edison's system planners must rely on the ICMD 6 demands for the low tension system since, as Con Edison states, the closer the grid 7 equipment is to the customer the greater the importance of ICMD. See Exhibit \_\_\_ (NYPA-8 4), Page 6. Less apparent is what role, if any, the class NCP should play in designing the 9 low tension system. As Con Edison states, the further the grid equipment is from the 10 customer, the greater the importance of class NCP. We certainly agree with Con Edison in 11 using the NCP for allocating costs related to the high tension system because the NCP is 12 generally used in designing high tension systems. And this approach is typical for use in 13 allocating primary distribution costs (see NARUC's Electric Utility Cost Allocation Manual, 14 January 1992, Page 97). But without supportable studies or analysis on how the NCP is 15 used in the planning of Con Edison's low tension systems, we believe that the NCP should 16 not be used in allocating the costs of the low tension system. Instead, we propose that the 17 D08/D09 allocator be based on the ICMD. This approach is also consistent with NARUC's 18 Electric Utility Cost Allocation Manual, January 1992, which states on page 97, "The 19 facilities nearer the customer, such as secondary feeders and line transformers, have much 20 lower load diversity. They are normally allocated according to the individual customer's 21 maximum demands." 22

As to the special diversity adjustment, while we believe that Con Edison's argument may
 have some theoretical merit, Con Edison has not provided any data or studies to support the

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reasonableness of the adjustment. Nothing has been presented to show that the 1 NCP/ICMD weighting for the SC-1, SC-1 (WHTG) and SC-7 service classes should be 2 75%/25%, as proposed by Con Edison, or for that matter, 90%/10%, or 100%/0%. 3 Furthermore, we believe that by already incorporating the NCP into the calculation (which 4 reflects a measure of diversity) and then applying a diversity adjustment, Con Edison 5 effectively is double counting. The NCP itself, which calculates maximum class demand, 6 includes diversity for the apartment house example cited by Con Edison in Exhibit \_\_\_\_ 7 (NYPA-4), Page 6. (The fact that no diversity adjustment is made for NYPA, which serves 8 apartment buildings with multiple meters, is yet another flaw in this allocator.) Thus, we 9 recommend rejecting both the averaging of the NCP and ICMD for developing the D08/D09 10 allocator - as well as the proposed diversity adjustment. As shown on Exhibit \_\_ (NYPA-4), 11 Pages 7-8, the impact of our recommended approach would lower NYPA's ECOS revenue 12 deficiency by \$12.8 million. 13

# Q. Please explain your position regarding congestion rents and the 2002 ECOS in more detail.

A. Con Edison has received congestion rents in excess of payments made to wholesale
customers (including NYPA, in accordance with a June 2000 agreement) of \$85.9 million in
2003. See Exhibit \_\_\_ (NYPA-4), Pages 9-12. Since the assets used to receive such rents
are paid for, in part, by NYPA, we believe that NYPA is entitled to its allocated share of such
excess rents. Specifically, we believe that NYPA is entitled to 14.22% of the excess
congestion rents, consistent with the percentage used to allocate transmission-related costs
in the 2002 ECOS. Thus, we recommend that NYPA receive its allocated share of the

### NYPA PANEL

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1		excess congestion rents. As shown on Exhibit (NYPA-4), Page 9, the impact of our
2		recommended approach would lower NYPA's ECOS revenue deficiency by \$12.2 million
3	Q.	Would you please explain your position regarding the R&D costs used in the 2002
4		ECOS in more detail?
5	A.	Con Edison's proposal is to allocate R&D costs to all customers, including NYPA, since all
6		customers generally benefit from the research activities of organizations such as the Electric
7		Power Research Institute (EPRI) and the New York State Energy Research & Development
8		Authority (NYSERDA). NYPA's portion of the R&D amount is roughly \$1.3 million, as shown
9		on Exhibit (NYPA-4), Pages 13-14.
10		The proposed treatment is unfair to NYPA since NYPA pays dues to many of the same
11		organizations as Con Edison, including EPRI and NYSERDA. Over the last two years,
12		NYPA has spent over \$10 million on R&D-related activities, including paying over \$6.5
13		million to EPRI and NYSERDA – the same organizations that make up a significant portion
14		of Con Edison's R&D expenditures. To have NYPA pay these dues again would constitute
15		double counting. Thus, we propose excluding the R&D amount from NYPA's cost of
16		service, which would lower NYPA's ECOS revenue deficiency by \$1.3 million.
17	Q.	Please explain your position regarding the functionalization of costs used in the 2002
18		ECOS in more detail.
19	Α.	As discussed above, Con Edison's two-step process results in an unreasonably high
20		allocation of the rate increase to NYPA. One of the primary reasons for this is that the
21		ECOS study relies on historic information (i.e., 2002 data) to establish future rates (i.e.,
22		2006 rate year). Perhaps under a business-as-usual approach this method might make
23		sense. But the next five years will be anything but business as usual since Con Edison $23$

#### NYPA PANEL

proposes to spend roughly \$5.2 billion on infrastructure improvements. See Con Edison 1 Exhibit \_\_ (JPR-3), page 1, associated with Mr. John Ricco's testimony. This impacts the 2 2002 ECOS in general and NYPA in particular in that the proposed investments are not in 3 the same proportions of functional categories as has occurred historically. In fact, the 4 proposed investments are heavily weighted toward distribution as opposed to transmission 5 investments. Since NYPA receives a smaller allocation of distribution vs. transmission 6 costs, this obviously has an impact on the cost of serving NYPA. As a result, we believe 7 that an adjustment should be made to account for this difference. As shown on Exhibit \_\_\_\_ 8 (NYPA-4), Pages 15-16, our proposed adjustment would lower NYPA's ECOS revenue 9 deficiency by \$1.6 million. As discussed, the ECOS bases percentage cost responsibility on 10 the specific functional weights associated with 2002 plant in service. The huge proposed 11 new investments shift the weighting of the functional categories of rate base. In order to 12 allocate costs fairly, the cost responsibility shares should reflect the functional weights 13 during the rates-in-effect period. Our adjustment is derived by adjusting Con Edison's plant-14 in-service amounts included in the 2002 ECOS study by the projection of plant additions to 15 calculate a revised revenue deficiency for NYPA. 16

# Q. Would you please explain your position regarding the 2006 demand forecast in more detail?

A. Similar to the infrastructure issue discussed above, Con Edison's two-step process results
 in a higher allocation of the rate increase to NYPA due to the relatively high growth rate for
 Con Edison customers vs. NYPA customers. Over the next three years, Con Edison load is
 expected to grow by 6.4%, while NYPA load is expected to grow by only 4.4%, as shown on
 Exhibit \_\_ (NYPA-4), Pages 17-18. This significant difference means that Con Edison

### NYPA PANEL

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1		customers should be receiving a higher proportion of the 2006 rate increase - particularly
2		when one considers that most of the rate increase is tied to infrastructure investments
3		related to load growth. As shown on Exhibit (NYPA-4), Pages 17-18, our proposed
4		adjustment would lower NYPA's revenue deficiency by \$3.1 million. The adjustment is
5		derived by modifying the ECOS allocators to reflect Con Edison's load growth projections
6		through 2006. This results in Con Edison's allocators growing at a faster rate than NYPA's-
7		which lowers the amount of cost allocated to NYPA.
8	Q.	Would you please summarize the impact of your specific adjustments to the 2002
9		ECOS?
10	Α.	Yes, the impact of our adjustments is to lower the "deficiency" by \$41.0 million as shown in
11		Exhibit (NYPA-2), Page 3, and thus, all but eliminating the deficiency.
12	V.	RATE OF RETURN TOLERANCE BANDWIDTH USED IN 2002 ECOS
13	Q.	Please explain your position regarding the rate of return tolerance bandwidth.
14	Α.	Our conclusion is that the 2002 ECOS does not produce a fair and appropriate allocation of
15		costs in this case. Here are the facts:
16		• The results of the 2002 ECOS vary substantially from those in the last ECOS.
17		Con Edison has provided no explanation for the surprising revenue deficiency for NYPA
18		shown in the 2002 ECOS.
19		• The 2006 revenue and cost structure will vary significantly from the 2002 revenue and
20		cost structure that underlies the 2002 ECOS.

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The ECOS results are extremely sensitive to small changes in demand assumptions –
 e.g., the D08/D09 allocator is responsible for allocating almost \$3.2 billion of plant in
 service; thus, a 0.1% change in the allocator would result in a change of \$3.2 million.
 And, as discussed above, we believe that several key allocators were inappropriately
 developed by Con Edison.

Consequently, the 2002 ECOS is not a reliable tool for ratemaking. Nevertheless, if the 6 Commission decides to use the 2002 ECOS, we believe that a wider tolerance band must be 7 employed to recognize the volatile nature of this study, its underlying assumptions and 8 methodology, and its data. And, while NYPA is the "victim" in this case, the volatile nature of 9 the ECOS is likely to result in inappropriate allocations of costs to others in future proceedings. 10 To address this concern, we believe the use of a wider, +/-20% bandwidth is appropriate. This 11 change alone would reduce the NYPA deficiency shown in the 2002 ECOS by \$15.2 million, as 12 shown on Exhibit \_\_ (NYPA-6), Page 1. We note that in Rochester Gas and Electric's rate case 13 (Cases 02-E-1098 & 02-G-0199), the Staff proposed, the ALJ adopted and the Commission 14 approved a wider tolerance band of +/-20% to avoid rate changes in that case that might need 15 to be reversed in a future case. 16

# 17 VI. RATE OF RETURN USED IN THE 2002 ECOS FOR CON EDISON'S 18 SERVICE TO NYPA

- 19 **O.** What is your position on this issue?
- A. We believe that the business risk that Con Edison incurs in serving NYPA is sufficiently
   different from its overall business risk to warrant a separate, lower cost of capital applied to

# NYPA PANEL

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1		the rate base allocated to NYPA. Reflecting this lower cost of capital in the 2002 ECOS
2		reduces the NYPA deficiency by \$34.5 million. See Exhibit (NYPA-5).
3	Q.	How does risk impact the cost of service to NYPA?
4	Α.	Con Edison Witnesses Rosenberg and Fetter testified to the risk that the Company bears,
5		and how that risk affects the cost of capital. We discuss here the extraordinary ways in
6		which Con Edison is able to minimize its business risk and attempts to further minimize
7		those risks through this rate proceeding. Then we will discuss how the service to NYPA
8		presents a strikingly different and lower risk profile to Con Edison.
9	Q.	What does risk have to do with the cost of capital?
10	A.	The testimony of Con Edison Witness Rosenberg is replete with references to risk, and his
11		"Risk Premium" approach deals with it explicitly. Mr. Rosenberg states (p. 31 of his direct
12		testimony, line 5), "The higher the perceived risk of an investment, the higher will be the
13		return that investors require from that investment. If two investments offer the same
14		expected return but have differing risks, investors will prefer the investment with lesser risk."
15		Mr. Rosenberg then proceeds to use the Hope decision [p. 32, line 9 of his testimony,
16		referring to the Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603
17		(1944)] to justify seeking investments of comparable risk. This is all well accepted
18		methodology for determining utility cost of capital and, while we do not agree with all of Mr.
19		Rosenberg's conclusions, we agree with the underlying methodology. We note also that
20		the reverse of this argument is true: the lower the perceived risk of an investment, the lower
21		will be the return that investors require from that investment.
22	Q.	How would you characterize the riskiness of an investment in Con Ed common

23 stock?

#### NYPA PANEL

- By the standard of most common stocks, such as those represented in the S&P 500 index. Α. 1 Con Edison must be considered to be on the low end of the scale of riskiness. 2
- Why do you say that? 3 Q.

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Most analysts and investors would say that an electric utility is a relatively stable business -4 Α. it is an infrastructure service that is important to virtually all its customers, its demand seems 5 relatively predictable, and, very importantly, it operates in many ways - especially its T&D 6 business - as a protected and regulated monopoly. There are obviously factors that make 7 Con Edison's earnings less than totally predictable - we've heard a lot about those in the 8 Con Edison testimony - nevertheless, Con Edison represents an equity investment that is of 9 lower risk than most. 10

#### Haven't some utilities had serious financial problems recently? Q. 11

Yes, they have, but not from the transmission and distribution portion of the business. Most 12 Α. of the truly serious financial problems have come on the deregulated energy side of the 13 business. The production plants and the trading of energy have produced most of the 14 earnings volatility in recent years for most electric utilities. 15

How does Con Edison's risk picture compare to that of other utilities? 16 Q.

This is not a risk-free business. And the Con Edison witnesses certainly have described 17 Α. some of the difficulties of the business, and especially those of serving a major metropolitan 18 area such as New York City. But, the Company also has presented a rate case that 19 minimizes or mitigates many of the risks - especially as those risks affect the volatility of net 20 income. 21

What has the Company proposed in this case to mitigate business risks? 22 **Q**.

- Con Edison presents us with a rate structure that is full of automatic adjustments and 23 Α. deferred cost recovery mechanisms. In this case, the Company attempts to minimize a
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1		number of risks that other utility companies bear, including new construction over \$10
2		million, inflation over 4%, fuel and purchased energy, and a number of specifics, such as
3		property tax rates and assessments, pension costs, environmental compliance costs, and a
4		number of others. All these factors combine to make Con Edison a utility with a lower risk
5		profile than most.
6	Q.	Does that make Con Edison a risk-free investment?
7	A.	Of course not.
8	Q.	What risks does the Company bear?
9	Α.	Among the first items that would be mentioned by most analysts would be regulatory risk.
10		Our review of the materials provided by Con Edison in this case suggests that the New York
11		regulatory climate is regarded as fairly positive for Con Edison – that the professional
12		investment community regards the regulatory risk that Con Edison faces as relatively low.
13	Q.	With what other risks must Con Edison cope?
14	A.	Other than regulatory risk, there are probably four major categories of operational risks that
15		can be identified. These are as follows:
16		a. <u>Operating risk</u> – the risk inherent in operating a complex electric grid in New York
17		City, including safety risk (both employee and public), outage risk and performance
18		risk;
19		b. <u>Credit risk</u> – the risk of not being paid by individual customers;
20		c. Fuel and purchased power risk – the risk of having fuel and purchased energy prices
21		so high that, somehow, regulators do not pass on the full cost of that energy. We
22		include in this category the many issues associated with energy trading, including
23		malfeasance and inadequate risk management practices. Con Edison seems to be
24		particularly concerned about its role as "provider of last resort" (POLR) inasmuch as

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### NYPA PANEL

	it can be the fall-back energy provider for many of its customers – and must do so
	regardless of the market price at which it buys energy.
	d. Volumetric risk – the risk of a drop in volume or a failure to meet load-growth
	projections, typically in the electric utility business either from a major change in the
	regional or local economy or in economic growth, or due to weather patterns that
	keep customers from having to use heating and cooling devices as much as normal.
Q.	Do you believe that NYPA imposes a proportionate share of those risks to Con
	Edison?
Α.	We refer to the four categories of risk above. Three of those have no bearing whatsoever
	on NYPA. First, there is no credit risk associated with Con Edison's service to NYPA -
	none whatsoever. NYPA pays Con Edison on time, NYPA passes through its Con Edison
	costs to a group of customers that represent the heart of the infrastructure of this city,
	including the city itself, the MTA, the Port Authority, and Westchester County. Con Edison
	will be paid.
Q.	What is the second category?
Α.	Con Edison has absolutely no energy responsibility to NYPA. NYPA is its own POLR, and
	Con Edison does no energy trading on behalf of NYPA.
Q.	What is the third category?
Α.	The third risk category that NYPA does not impose on Con Edison is that of volume.
	NYPA's rates are demand-based, not energy. NYPA's demand is highly predictable, not
	nearly as subject to the vicissitudes of weather or the economy as much of the remainder of
	Con Edison's load. Under this category of volumetric risk, we would add the point that
	NYPA presents a very low risk to Con Edison from the perspective of planning to meet
	future loads. As a vital part of the infrastructure of this area, the NYPA load will continue to
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#### NYPA PANEL

be there, and will grow in a steady and predictable manner. The NYPA load simply is not
 subject to wide and unexpected changes.

# 3 Q. So what conclusion can you reach with respect to the pricing of Con Edison's service 4 to NYPA?

In a way, it is almost as if Con Edison is leasing to NYPA the use of its grid system, 5 Α. including its operation and maintenance. NYPA pays annually for the use of the system and 6 pays sufficiently for Con Edison to operate and maintain it and, yes, to compensate it for the 7 risk of that operation. But NYPA imposes no other cost or risk to Con Edison. In financial 8 9 terms, risk is a cost of doing business. If we follow the principle of ratemaking that costs should be attributed to their cause, the cost of the risk of energy prices, of credit and of 10 sales volume must not be attributed to NYPA. The most logical way that we know to offset 11 that risk is to ascribe a lower cost of capital to the pricing of Con Edison's service to NYPA. 12

# Q. Can you quantify the degree to which Con Edison's service to NYPA imposes less risk than that of other customers?

A. A reasonable adjustment to the rate of return used to allocate rate base to NYPA would be
 to use the Con Edison cost of debt, plus a risk premium adjusted for the lower risk that
 NYPA presents. Using a risk premium over the cost of the Company's debt is consistent
 with Con Edison Witness Rosenberg's discussion of Risk Premium Analysis, beginning on
 page 30, line 5 of his direct testimony. While we cannot quantify precisely the risk
 differences, we are comfortable testifying that NYPA imposes no more than half the risk that
 Con Edison bears in its overall business.

# Q. So what is your recommendation for the cost of equity attributed to Con Edison's service to NYPA?

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Clearly, Con Edison's cost of capital attributed to serving NYPA should be lower. Con 1 Α. Edison Witness Rosenberg testified, on pages 32 through 37 of his direct testimony, to an 2 average risk premium of 4.2 percent, or 420 basis points. Using that 420 basis points for 3 purposes of this testimony, we believe a risk premium in a range of 1/3 to 2/3 of the 4 premium would be reasonable for NYPA. Thus, our recommendation would be for a risk 5 premium of about 210 basis points, resulting in a cost of equity capital for Con Edison's 6 service to NYPA of about 8.40 percent. This is a judgment call, to be sure, but the worst 7 judgment by far would be to ignore this important factor and continue to overcharge NYPA 8 9 and all of its customers.

# 10Q.What would be the effect on the 2002 ECOS calculations of a change in the cost of11capital with respect to NYPA service?

- A. Reducing the cost of equity for NYPA to 8.40 percent would reduce the cost of capital for
  NYPA service to 7.22 percent. Applying that cost of capital to Con Edison's recommended
  rate base, there would be a reduction in the 2002 ECOS deficiency of NYPA of \$34.5
  million. See Exhibit \_\_\_ (NYPA-5).
- Further, the fact that the 2002 ECOS does not reflect a lower cost of capital for Con
  Edison's service to NYPA is additional justification for not using the 2002 ECOS to set rates.
  At the very least, this fact supports widening the rate of return tolerance band used in the
  2002 ECOS so as to accommodate a lower cost of capital for service to NYPA.

# 20 VII. REVENUE REQUIREMENT ADJUSTMENTS/DEPRECIATION

# Q. Does the Panel have any adjustments with respect to the changes in depreciation rates requested by Con Edison?

#### NYPA PANEL

A. Yes, we do. We recommend that the Commission reject Con Edison's position on
 increasing the dollar amount of depreciation beyond the level that would be justified by
 current depreciation rates. In a proposed two-step approach, the Company failed to justify
 any of the increases sought, in our opinion.

5 Q. Please explain the problems you found with the Con Edison analysis.

A. Con Edison Witness Hutcheson actually testified to two sets of depreciation rates in this
 case – first a "traditional approach," that he used to justify higher rates than are being used
 currently, then a so-called "economic approach" that went beyond the normal methods of
 developing depreciation rates and seemed to be used primarily to justify even higher
 revenue requirements.

11 Q. What are your observations on Con Edison's recommended economic approach?

A. The economic approach should be rejected in its entirety. In our opinion, based upon a
careful review of Witness Hutcheson's direct testimony, this is not an "economic approach"
in the sense that an economist might use. We would call it, instead, an "opportunistic
approach," and one that can be considered to be "economic" only to Con Edison.

16 Q. Please describe your issues with Con Edison's "economic depreciation."

A. In the first place, it is a complete misuse of the term "economic depreciation." In the
economist's sense, "economic depreciation" refers to a concept in which annual
depreciation expense is based upon the diminution in *economic value* of an asset or a class
of assets. Thus, in determining economic depreciation, we would take into account the
enhancement in value from inflation as well as any change in value due to other factors –
technological change, economic conditions, etc.

# NYPA PANEL

1	Q.	Is that not the concept that Mr. Hutcheson described?
2	Α.	No, in fact, it has nothing to do with the concept as described by Witness Hutcheson.
3		Mr. Hutcheson's entire argument is based on Con Edison's alleged need to improve cash
4		flow. He cited statistics that show depreciation expense compared to annual construction
5		expenditures and show Con Edison to be lower than the average of the small sample size
6		used. Even if one accepted the Con Edison statistical analysis, that still proves nothing
7		other than the well-known fact, one that Con Edison touts, that the Company has a very
8		large construction program.
9	Q.	Mr. Hutcheson argued that the higher depreciation rates of his economic depreciation
10		proposal would result in lower revenue requirements to customers. Do you agree
11		with that?
12	Α	Under a very strained set of circumstances, not realistic in its application to the electric
13		utility business, Mr. Hutcheson's argument can be said to be correct. In his response to the
14		PSC Staff Interrogatory #58 (See Exhibit(NYPA-7), Page 2), Mr. Hutcheson explains that
15		for an individual asset, if it is depreciated over a shorter period of time, and therefore
16		financed over that shorter period of time, the revenue requirement for the life of the asset is
17		lower. This, of course, is likened to buying a car with a three-year loan as opposed to a five-
18		year loan, in that your total payments over the life of the loan are lower with the shorter loan
19		period. We find this to be rather a disingenuous argument in the context of this rate case.
20		For that individual asset in Mr. Hutcheson's example, the lowest revenue requirement is
21		found by simply expensing, or depreciating the asset over one year. Perhaps for one asset
22		the theory works, but it fails any test of reasonableness when applied to an electric utility
23		company.
#### NYPA PANEL

1 Q. V

#### What if we look on a present value basis?

A. Mr. Hutcheson's theory either ignores the time value of money, as above, or it rests on
 having a discount rate for the customer that is lower than the Company's cost of capital, so,
 effectively, it is cheaper for the customer to maintain the investment than the Company.

# Q. What do you conclude from Mr. Hutcheson's statement regarding the alleged rate benefits of higher depreciation rates?

A. It seems that Mr. Hutcheson is caught in a dilemma between two conflicting theories that he
promotes. If the customer has lower rates, then why is it that this is the avenue to better
cash flow to the Company? The cash flow comes from only one place – the customer. The
short answer is that, for the foreseeable future, and as long as Con Edison is adding
considerable amounts of new electric plant, rates to the customers are lower with lower
depreciation rates. There is no customer benefit to Mr. Hutcheson's proposal for so-called
economic depreciation, and we recommend that his proposal in that regard be rejected.

# Q. Do you recommend that the Commission adopt the rates recommended in the "traditional approach" to depreciation rates, to which Mr. Hutcheson testified?

No, we do not. Reviewing Mr. Hutcheson's testimony and the accompanying exhibits very 16 Α. carefully, it appears that a proper depreciation study was performed initially and that 17 Mr. Hutcheson then changed quite a few of the results according to his judgment, made and 18 commented upon in his Exhibit\_\_CH-4. While we are not prepared to argue with 19 Mr. Hutcheson on every judgment call, we observed 14 cases where the evidence of the 20 study suggested, according to Mr. Hutcheson himself, that the depreciable life should be 21 raised, thereby lowering the depreciation rate, and in each of those cases Mr. Hutcheson 22 used his judgment to maintain the life and, thus, the current depreciation rate. This 23

#### NYPA PANEL

- consistent bias, along with the knowledge that Mr. Hutcheson desires to increase cash flow
   from depreciation, suggests to us that the results of this analysis are too flawed to utilize.
- 3 Q. What is your alternative?
- A. We have prepared Exhibit \_\_ (NYPA-7), Page 1, that presents an alternative proposal. In
  that exhibit, we simply applied the results of Mr. Hutcheson's own study and observations,
  increasing the depreciable life wherever his study suggested doing so. We did not change
  any case in which Mr. Hutcheson lowered the depreciable life in each case, he gave
  adequate reasons and had an adequate basis for making that interpretation.

### 9 Q. What are the conclusions from your study?

- 10 A. Our study showed total depreciation for Con Edison's electric plant in service (which
- 11 excludes common plant, to which we have no adjustments) to be \$295.8 million for the rate
- 12 year 2006, compared to Mr. Hutcheson's recommendation of \$328.2 million in his
- 13 Traditional Approach. The current depreciation rates, as calculated by Mr. Hutcheson,
- 14 produce depreciation expenses of \$296.7 million. Therefore, we suggest that the
- 15 Commission adopt our modification of Mr. Hutcheson's Traditional Approach, which has the
- 16 advantage of updating depreciation rates per the latest Con Edison study.

# 17 VIII. REVENUE REQIREMENT ADJUSTMENTS/PROPERTY TAX RATES

- 18 Q. Have you reviewed the Con Edison position on property tax rates?
- 19 A. Yes, we have.

#### NYPA PANEL

### 1 Q. What is your overall recommendation on the property tax issue?

We recommend that the Commission reject Con Edison's assumption of higher property tax 2 Α. rates and approve the inclusion of property taxes based on rates at the current level. There 3 is no assurance whatsoever that rates will rise at all - property tax rates have decreased 4 from one year to the next in the past as well as increased. Especially in light of the 5 magnitude of the rate increase Con Edison is seeking in this proceeding, and in light of the 6 deferred accounting treatment that it already has and seeks to continue, we see no 7 justification for increasing the assumed level of property tax rates. We agree, though, with 8 the Company's request for continued deferred accounting treatment for property tax 9 changes due to rates above or below the assumed level. 10

11 Q. Why should the Commission not accept the Con Edison assumptions?

A. We believe that Con Edison has been unjustifiably aggressive in projecting property tax
rates, especially as they apply to Class 3 Property in New York City, the Class that
comprises the preponderance of Con Edison's utility property in New York City. Property
taxes are a substantial issue for Con Edison – we have no argument with that. But, we
believe that the Company essentially took one large increase in rates, averaged it together
with two smaller increases, a decrease and one year that was essentially flat, and
considered that an average upon which to base future rate increases.

# Q. What rate did Con Edison assume for Class 3 Property in New York City in the rate year?

A. Property tax rates in New York City are effective over the City's fiscal year, which runs from
 July 1 to June 30 the following year. For the year 2005/2006, which coincides with most of
 the first rate year, according to Con Edison Witness Hutcheson the assumed rate is

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# NYPA PANEL

14.217%, up from this year's actual rate of 12.418%. In the two additional years for which

2		Con Edison seeks higher electric rates, the property tax rate for Class 3 Property rises to
3		15.212% in 2006/2007 and to 16.277% in 2007/2008.
4	Q.	Are you arguing against the level of property taxes in New York City?
5	, A.	No, we have no basis for arguing against New York City's tax structure. Our argument here
6		is solely that Con Edison has taken a very small amount of data and made some
7		assumptions that have a substantial impact on electric rates.
8	Q.	Surely Con Edison had additional justification for its assumptions of higher rates?
9	Α.	The only justification cited in Con Edison Witness Hutcheson's testimony was a very
10		simplistic calculation - the average increase over the past five years. There was no
11		evidence presented that the City has any need or intention to raise property tax rates.
12	Q.	What has been the past history of property tax rates in New York City?
13	Α.	Rates are higher now than they've been in quite a few years – but there have been
14		decreases in the past. In fact, in the last 24 years, as shown in Exhibit (NYPA-8), Pages
15		1-2, which represents all the data available from the City, there have been five instances of
16		rates decreasing from one year to the next for this class of property.
17	Q.	Will Con Edison not be damaged financially if it fails to recover the cost of increased
18		property taxes?
19	Α.	We do not argue with the premise that Con Edison should be permitted to recover all the
20		property taxes that it pays. And we support the inclusion of the deferred accounting that the
21		Company requests with respect to property taxes. It is reasonable that the Company be
22		able to recover these costs that are imposed on it by a government authority. However, that

## NYPA PANEL

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1		lends even more credence to the notion that there is no justifiable reason to increase
2		electric rates in advance of a property tax increase that may or may not occur. Before the
3		third quarter of FY 2002, there had been two years of essentially stable rates, preceded by
4		four years of increases. Before that, the period from 1990 until 1996/1997, rates actually
5		were down fairly sharply.
6	Q.	So what is your conclusion?
7	Α.	We believe Con Edison should be permitted to collect for property taxes at the current legal
8		rates in its various jurisdictions. It should not be permitted to include an unsupported
9		forecast of increases in property taxes into the revenue requirement. As property tax rates
10		change, the Company is well justified in having deferred accounting treatment in order to
11		ensure that it eventually recovers those lawful rates, and that the benefits of lower rates are
12		passed back to customers.
13	IX.	RATE BASE ADJUSTMENTS/CASH WORKING CAPITAL ALLOWANCE
14	Q.	Have you reviewed the Con Edison filing with respect to Working Capital?
15	A.	Yes, we have.
16	Q.	What are your observations with respect to Con Edison's Working Capital position?
17	Α.	Con Edison has taken a calculation that it calls the "modified FPC formula," (Con Edison
18		Witness Mucillo, page 22, line 19 of his direct testimony) which is 1/8 of certain cash
19		operations and maintenance expenses, as its approximation for cash working capital, in
20		addition to prepayments and materials and supplies.

#### NYPA PANEL

1 Q. What is wrong with that calculation?

A. The problem with the formula as applied in this case is that it produces a result that is not
representative of the real working capital requirements of the Company.

#### 4 Q. Please explain.

A. Working capital is a real business need – the need for cash funds to manage day-to-day
operations. The biggest requirement for working capital for almost all businesses, and this
certainly includes Con Edison, is to fund accounts receivable. However, the Company is on
another side of numerous transactions – it is a payer – to its trade vendors, to its
employees, to its taxing authorities, and to its creditors – all these are current liabilities that
the Company is effectively borrowing on a monthly basis, just as it is effectively lending to its

## 12 Q. What guidance does FERC offer on this computation?

A. FERC has accepted the 1/8 formula as a guideline in the past. However, more recently,
FERC appears to regard the 1/8 formula as a maximum, or a guideline if no party objects.
In its "Rate Case Filing Manual" for gas companies, dated January, 1997 (no similar
document appears to exist for electric companies), FERC states under its instructions for
SCHEDULE E-1, COMPUTATION OF CASH WORKING CAPITAL ADJUSTING RATE
BASE,

"Show the computation of cash working capital claimed as an adjustment to the gas
company's rate base. Any adjustment to rate base requested must be based on a
fully-developed and reliable lead-lag study. The components of the lead-lag study
must include... Cash working capital allowances in the form of additions to rate base

## NYPA PANEL

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1		may not exceed one-eighth of the annual operating expenses, as adjusted, net of
2		non-cash items." (our emphasis added)
3		There also is a case currently before FERC in which Con Edison has been involved, Docket
4		No. RP04-136-002 involving Iroquois Gas Transmission System, L.P. In its January 30,
5		2004, order establishing a hearing to examine Iroquois' proposed rates for its Eastchester
6		project, FERC found that, in order for Iroquois to recover what the Commission thought to
7		be a requested cash working capital allowance, Iroquois must perform a "fully-developed
8		and reliable lead-lag study."
9	Q.	Are there FERC regulations with respect to cash working capital for electric
10		companies?
11	А.	Yes, in 18 C.F.R. 35.13(h)(12), under "Filing of Rate Schedules and Tariffs", there are the
12		following instructions with respect to the inclusion of Cash Working Capital in the rate base:
13		"Cash working capital. The utility shall indicate average monthly working cash
14		requirements that reflect the extent to which day-to-day operational utility service
15		revenues are received later or earlier than cash disbursements necessary to provide
16		the services, with an explanation of how such requirements are derived."
17		This strongly suggests that the inclusion of Cash Working Capital in the rate base is a
18		function of the timing differences between cash receipts and cash disbursements, which is
19		the reason that a lead-lag study is often the preferred method for this calculation. Public
20		utility commissions in New Jersey and Texas, to cite two of which we are immediately
21		aware, require lead-lag studies to support cash working capital claims.
22	Q.	Does Con Edison have a lead-lag study available?

#### NYPA PANEL

1 A. Con Edison responded to Interrogatory NYPA-30 that it has not performed lead-lag studies.

2 Q Do you have a way to estimate cash working capital requirements in the absence of a 3 lead-lag study?

We did not have access to all the information needed to perform a detailed calculation, but 4 Α. we performed a reasonable estimate based on balance sheet accounts. We believe that 5 our estimate is substantially superior to the simplistic one-eighth formula. Essentially, we 6 used balance sheet numbers for certain current asset and current liability accounts. These 7 suffer the shortcomings of not being specific to either gas or electric, for the most part, and 8 of not being available more frequently than guarterly. Given those limitations, though, we 9 developed estimates based on the Company as a whole, and then reasonably inferred a 10 position for Con Edison's electric business. 11

12 Q. Would you please explain your study?

Yes. Please refer to Exhibit \_\_ (NYPA-9), Page 1. By using quarterly balance sheet 13 Α. numbers from December 31, 2002 through December 31, 2003 for the utility, we can see 14 quickly that the Company's cash working capital needs are close to zero. For the past five 15 quarters, accounts receivable, customer and other, averaged \$824 million. In its working 16 capital calculation, the company calculated \$67 million of materials and supplies and \$161 17 million of prepayments. To this, we would add Other Current Assets, which averaged \$55 18 million for the five quarters, and cash and other temporary investments, which averaged \$47 19 million. This totals, then, \$1,155 million of current assets that must be funded. We find 20 more than adequate funding sources, however, on the other side of the balance sheet. 21 Again using guarterly data from the 10-Q's, we took five accounts as providing the current 22 liabilities that provide a source of capital to pay for current assets. Those accounts are 23

### NYPA PANEL

1		accounts payable, taxes accrued, interest accrued, wages accrued and other current
2		liabilities. For the past five quarters, the average of those five accounts was \$1,151 million.
3		That means that current assets exceeded current liabilities only by \$4 million for the five
4		quarters analyzed.
5	Q.	So would you recommend that the Commission adjust the working capital allowance
6		to \$4 million?
7	Α.	No, we would not recommend that low of a working capital allowance. We suggest
8		accepting Con Edison's assertion for Prepayments and for Materials and Supplies and
9		assume that the remainder is more than taken care of by the offset of accounts receivable
10		and the various current liabilities. Thus, our recommended total allowance for working
1		capital for the rate year 2006 is the \$267 million total of prepayments and materials and
12		supplies, with no additional allowance for cash working capital. This would eliminate the
13		\$161 million sought as an allowance for cash working capital, reducing requested rate base
14		by that amount.

# 15 X. RATE BASE ADJUSTMENTS/EXCESS RATE BASE OVER CAPITALIZATION

16 Q. **Do you** 

## Do you have other adjustments to rate base?

- 17 A. Yes, we do. We would like to discuss the "Excess Rate Base over Capitalization" (EBCAP),
- 18 an adjustment that Con Edison has made that increases rate base by \$291 million.
- 19 Q. What is your issue with EBCAP?

20 A. This appears to be more or less a historical artifact in Con Edison's rate cases. It appears

21 that the EBCAP adjustment began in 1975 in a Niagara Mohawk case in which rate base

22 exceeded capitalization. The Commission made an adjustment that kept the company from

#### NYPA PANEL

earning returns on a base larger than the company's capitalization itself. Today, that 1 situation appears to be reversed for Con Edison- the claimed rate base is somewhat 2 smaller than capitalization. 3 Con Edison has made a calculation of EBCAP and come up with a negative number -Q. 4 effectively increasing rate base to equal adjusted capitalization. What is wrong with 5 6 that? We believe that effectively makes pointless the entire rate base calculation. The rate theory 7 Α. is that customers should pay for the use of assets dedicated to their service. Con Edison is 8 given ample opportunity to show a rate base that serves its customers - which we believe 9 for the most part it has done, other than with respect to our previously mentioned 10 adjustment to working capital. We see no reason to simply adjust that number upward to an 11 artificial level - to equal the Company's capitalization. 12 So what is your conclusion with respect to EBCAP? 13 Q. We do not believe that the Company has met the burden of demonstrating that this portion 14 Α. of rate base is required to meet the customers' needs, and recommend that the Commission 15 not accept that adjustment. 16 Please summarize the impacts of your proposed adjustments to Con Edison's rate Q. 17 18 base. Combining our recommendations of a \$161 million reduction with respect to cash working 19 Α. capital and the \$291 million reduction of negative EBCAP, we recommend that the 20 requested rate base for the rate year 2006 be reduced by \$452 million. This adjustment to 21

# NYPA PANEL

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1		requested rate base would reduce Con Edison's rate increase request, based on its
2		requested cost of capital, by approximately \$70 million.
3 4	Q.	Please summarize your recommendations with respect to Con Edison's overall revenue requirements.
5	A.	We have recommended reductions to Con Edison's overall revenue requirements in three
6		areas: depreciation, property tax expenses and rate base reductions due to working capital
7		adjustments and the elimination of the EBCAP. The depreciation expense reduction is \$57
8		million, the property tax expense reduction is \$68 million and the revenue requirement
9		impact of the two adjustments to rate base is \$70 million, summing to a total revenue
10		requirement reduction of \$195 million.
11	Q.	Does this conclude the Panel's testimony?

12 A. Yes, it does.

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Exhibit \_\_ (NYPA-1) Page 1 of 3

## Resume of Dr. John Chamberlin

Dr. Chamberlin is Executive Vice President at Quantec, LLC. He directs several practice areas including IRP strategy, cost-of-service analysis, rate design, retail market strategy, resource procurement strategy, and expert witness and litigation support. He leads the development of tools and procedures to assist utilities and unregulated energy companies in the evaluation and understanding of product and market costs, valuation, profitability and performance. He also leads the evaluation of regulatory and market rules, market pricing and strategy.

Dr. Chamberlin has been a leader in the development and application of innovative electric pricing strategies for almost 3 decades. He authored portions of the federal PURPA pricing guidelines in the early 1980s, wrote many of the EPRI/EEI Rate Design Study "grey books" including the development of marginal cost pricing methods, wrote three innovative pricing guidebooks, developed and taught pricing courses for EPRI, EEI and APPA, and has developed numerous demand response rates over the past decade. He is currently leading a study for a mid-western utility of all US demand response rates.

Prior to joining Quantec, Dr. Chamberlin was Vice President, Strategic Services, at Xenergy, and Vice President, Strategy and Planning at PG&E Energy Services. While at PG&E ES, he led the development of the company's market entry and evaluation models and processes, product profitability analysis, and long range planning and budgeting. He was also responsible for the company's product development, market assessment, customer targeting, market planning, the economic and financial aspects of regulatory strategy, and the financial evaluation of a variety of new initiatives.

Dr. Chamberlin joined PG&E ES through the sale of the consulting company he cofounded: Barakat and Chamberlin (BCI). BCI was a national leader in the utility consulting business, providing services in the areas of valuation, energy efficiency and demand-side management, rates and pricing, forecasting, market planning and assessment, organizational planning, cost of service and revenue requirements, and related areas. As Executive Vice President of BCI, Dr. Chamberlin directed most of the electric utility practice throughout North America.

Dr. Chamberlin has co-authored several books, including Demand-side Management: Concepts and Methods, and Demand-side Management Planning. He is the author of dozens of published articles, numerous monographs and has been invited to present more than a hundred speeches at industry conferences on a variety of energy related topics. He has also taught at numerous workshops on topics including energy efficiency, rates and pricing, planning, forecasting, and competitive policies. He has been widely recognized as a pioneer in the development of methods to plan and evaluate energy efficiency programs, and was an early leader in the development of innovative energy pricing methods. He has testified numerous times before state regulatory commissions and legislatures on matters including rates, pricing policy, resource planning, competitive market policy issues, and energy efficiency.

Prior to cofounding BCI, Dr. Chamberlin was employed by the Electric Power Research Institute, ICF Incorporated, and Westinghouse Hanford. He earned a BA in Economics at California State University (Chico) in 1972, and the MA(1975) and PhD(1976) in Economics at Washington State University. He has been a member of numerous industry organizations, and served as a founding board member of the Association of Energy Service Professionals.

## Resume of Mr. Don Bennett

Don Bennett is a senior executive management consultant who provides financial and strategic management consulting services to the energy utilities industry and other infrastructure businesses. He has served the industry for 33 years, first as a financial executive and, for the last 11 years, as a consultant. Mr. Bennett was a partner at Arthur Andersen, serving as the head of its National Utility Consulting Group before departing in 1997. Prior to entering consulting, Mr. Bennett had served in various financial management positions with The Southern Company, the electric holding company in Atlanta, Georgia.

Mr. Bennett's consulting practice focuses primarily on assisting clients with economic decisionmaking, financial management and rate and regulatory issues. Mr. Bennett has consulted with clients world-wide, including over 40 companies in the United States and Canada. Clients have included major investor-owned companies such as FirstEnergy, Entergy, Northern States Power, Florida Power Corporation, The Southern Company, United Illuminating, Bangor Hydro, PEPCO, Consumers Gas (subsidiary of Enbridge, Inc.) and Central and South West, as well as large public companies, including the Orlando (Florida) Utilities Commission, the Tennessee Valley Authority, Ontario Hydro, BC Hydro, Public Power of Greece and ESKOM (South Africa).

Mr. Bennett is national thought leader in utility performance management and has assisted many companies in implementing improved management reporting, planning and decision-making based upon the use of the Balanced Scorecard and Shareholder Value concepts. He is a financial expert who has worked with numerous financial managers and executives in developing financial analytical processes and performing valuation analyses, with a particular emphasis on the financial planning and resource allocation processes. He has led many projects involving the use of advanced costing tools and techniques in all aspects of utility operations.

Don Bennett has a Bachelor of Science degree in Industrial Management from the Georgia Institute of Technology (Atlanta, Georgia) and an MBA from the University of North Carolina. He resides in Arlington, Virginia.

## Resume of Mr. Timothy S. Lyons

Mr. Lyons has 18 years of experience in the energy industry. He specializes in developing and implementing marketing, rate and regulatory initiatives for utilities and energy companies. He has designed and executed various types of programs in the areas of marketing, pricing, regulatory, and supply procurement. Experience highlights include:

- Prepared, testified to and implemented several rate designs for utilities.
- Designed and implemented gas purchasing strategies that helped stabilized prices for gas utility customers.
- Designed and implemented a series of retail programs that enabled customers to choose competitive suppliers.

Prior to joining Quantec, Mr. Lyons was with KEMA Management Consulting, formerly XENERGY, Inc. Before that, he was Vice President of Marketing and Regulatory Affairs for Providence Gas Company. He was responsible for the development and implementation of all utility marketing, pricing, and regulatory programs. Previously, he was a Director of Rates and Revenue Analysis at Boston Gas Company (now, KeySpan Energy), and was responsible for the design, regulatory approval, implementation, and administration of rates. Mr. Lyons has testified before the Massachusetts Department of Telecommunications and Energy and the Rhode Island Public Utilities Commission. He is a member of the American Gas Association.

Mr. Lyons received a B.A. in mathematics and economics from St. Anselm College, an M.A. in economics from Pennsylvania State University, and an M.B.A. in finance from Babson College.

# Proposed Increase (per Con Edison: Workpaper RD-88)

and the second			
Proposed Increase	ά p.		567,871,000
Con Edison customer revenues	2,341,476,000		
Less: Surplus	(42,190,000)	. · · · ·	
Con Edison Adjusted Revenues		2,299,286,000	
NYPA Delivery revenues	251,609,000		
Add: Deficiency	43,308,000		
NYPA Adjusted Revenues		294,917,000	
EDDS Revenues	25,539,000		
Add: Surplus	(1,118,000)		
EDDS Adjusted Revenues		24,421,000	
Total Con Edison			2,618,624,000
	<b></b>		
Allocation to NYPA			
- NYPA Revenue requirement	11.3%		63,955,273
- Add: Deficiency		· -	43,308,000
			. 407 000 970
Proposed annual increase (\$)			107,203,273
Proposed annual increase (\$) Proposed Annual Increases PAS	NY LONG TO SEA	s a star	107,203,273
Proposed annual increase (\$) Proposed Annual Increases PAS			107,203,273
Proposed annual increase (\$) Proposed Annual Increases PAS Allecation to EDDS			6 205 203
Proposed annual increase (\$) Proposed Annual Increases PAS Allocation to EDDS - EDDS Revenue Requirement	NY. 14 3000 1 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		5,295,903
Proposed annual increase (\$) <b>Proposed Annual Increases: PAS</b> Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus	NY. 18 2000 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		5,295,803 (1,118,000
Proposed annual increase (\$) <b>Proposed Annual Increases PAS</b> Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus Proposed annual increase (\$)	NY. 10 0.9%		5,295,903 (1,118,000 4,177,903
Proposed annual increase (\$) Proposed Annual Increases PAS Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus Proposed annual increases - EDD	NY <b>- W State (1</b> 84) 0.9%		5,295,903 (1,118,000 4,177,903
Proposed annual increase (\$) <b>Proposed Annual Increases: PAS</b> Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus Proposed annual increase (\$) Proposed Annual Increases - EDD Allocation to Con Edison	NY	-	6,295,903 (1,118,000 4,177,903
Proposed annual increase (\$) <b>Proposed Annual Increases: PAS</b> Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus Proposed annual increase (\$) Proposed Annual Increases - EDD Allocation to Con Edison	NY. 80.9% 0.9% OS		6,295,903 (1,118,000 4,177,903 16% 498,619,825
Proposed annual increase (\$) <b>Roposed Annual Increases: PAS</b> • EDDS Revenue Requirement • Less: Surplus Proposed annual increase (\$) <b>Proposed Annual Increases - EDD</b> <b>Niocation to Con Edison</b> • Con Edison Revenue Requirem • Less: NYPA Deficiency	NY. 80.9% 0.9% OS ent 87.8%	-	6,295,903 (1,118,000 4,177,903 16% 498,619,825 (43,308,000
Proposed annual increase (\$) Proposed Annual Increases: PAS Allocation to EDDS - EDDS Revenue Requirement - Less: Surplus Proposed annual increase (\$) Proposed Annual Increase (\$) Allocation to Con Edison - Con Edison Revenue Requirem - Less: NYPA Deficiency - Add: EDDS Surplus	NY. 0.9% 0.9% OS ent 87.8%		5,295,803 (1,118,000 4,177,903 498,619,825 (43,308,000 1,118,000

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# Revised Increase (No ECOS Revenue Deficiency)

Allocation of T&D Revenue increase (Revised for No ECOS Deficiency)	Deficiency		Increase	increase	Difference
Current Revenues			587,871,000		
Con Edison customer revenues	2,341,476,000			· · ·	
Less: Surplus		· . ·			• •
Con Edison Adjusted Revenues		2,341,476,000			
NYPA Delivery revenues	251,609,000		· · ·	, <sup></sup> U	
Add: Deficiency	and a second second			. *	
NYPA Adjusted Revenues	•	251,609,000		1. 1. 1.	
EDDS Revenues	25,539,000		<i></i>		
Add: Surplus					
EDDS Adjusted Revenues	····	25,539,000			•
Total Con Edison			2,618,624,000		
Allocation to NYPA	•				×
- NYPA Revenue requirement - Add: Deficiency	9.6%	0	54,563,563	. · ·	11 July Direct Alternation
Proposed annual increase (\$)			54,563,583	107,263,273	<ul> <li>(52,699,710</li> </ul>
Revised Annual Increases - PASNY		ili		e tra constante da	0
Allocation to EDDS	· ·				
- EDDS Revenue Requirement	1.0%		5,538,350 -	•	
Proposed annual increase (\$)		· •	5,538,350		
Revised Annual Increases - EDDS	and the second states	nerz cert	22%		
Allocation to Con Edison		•			S .
- Con Edison Revenue Requirement	89.4%		507,769,087		
Less: NYPA Deficiency     Add: EDDS Surplus			•		
	2 60 1		507,769,097		

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Exhibit \_\_ (NYPA-2) Page 3 of 7

# Change in ECOS Deficiency (with Proposed NYPA ECOS Adjustments)

Issue	Impact on NYPA Deficiency
Rate of return calculation	(\$9.5)
D04 (Allocation of high tension costs)	(\$0.5)
D08/D09 (Allocation of low tension costs)	(\$12.8)
Congestion rents	(\$12.2)
R&D Costs	(\$1.3)
Functionalization of 2006 costs	(\$1.6)
2006 Demand	<u>(\$3.1)</u>
Total	(\$41:0:million)

# Revised Increase (with 20% Bandwidth)

Company Party and States and States and States			567.871.000			
Current Keyenness, Elementer in the		256		 · .		
	251,609,000					
Add: Deficiency	28,112,628					
NYPA Adjusted Revenues	· · ·	279,721,628		•	22	
otal Con Edison			2,618,624,000			•
	1. A.					· .
location to NYPA			·			
- NYPA Revenue requirement	10.7%	· .	60,660,026			
- Add: Deficiency	W e		28,112,628			
Proposed annual increase (\$)	•		88,772,654	107,263,273	3 322 (18	490,618

Exhibit \_\_ (NYPA-2) Page 5 of 7

----Original Message-----From: gerald\_lynch@dps.state.ny.us [mailto:gerald\_lynch@dps.state.ny.us] Sent: Friday, July 02, 2004 1:26 PM To: agupta@nrdc.org; aweinberger@hess.com; bwiles@pulp.tc; Bob.Glasser@ThompsonHine.com; cgoodman@energymarketers.com; chris.wentlent@aes.com; cjbrennan@pulp.tc; cluthin@luthinassociates.com; cnesser@keyspanenergy.com; collijp@selectenergy.com; cpechman@powereconomics.com; crinaldi@mtahq.org; c\_young1@att.net; dbj@readlaniado.com; dkoplas@fluentenergy.com; doug.elfner@consumer.state.ny.us; dpenharlow@energypartnersusa.com; drosenblum@law.pace.edu; dstreed@naenergy.com; ekichline@keyspanenergy.com; energywiz@aol.com; fmiller@llgm.com; fpullaro@sel.com; fradigan@aol.com; ganorlander@pulp.tc; Garcia, Carol; gberry@taconic.net; gdiaman@ssmplaw.com; glenn@ippny.org; gerald\_lynch@dps.state.ny.us; hepinstall@aeanyc.org; heslinm@coned.com; harvey\_arnett@dps.state.ny.us; james\_lahtinen@rge.com; jbd@readlaniado.com; jdandrea@keyspanenergy.com; jdowling@nycap.rr.com; Samberg, Jesse; Byham, Kim; kkennedy@nrdc.org; krayeskem@coned.com; kevin\_lang@dps.state.ny.us; kimberly\_harriman@dps.state.ny.us; lopezij@conedsolutions.com; lublingc@coned.com; mark.williams@uwua1-2.org; mdelaney@nycedc.com; mfabic@keyspanenergy.com; ncianflone@keyspanenergy.com; pbrown@bowlaw.com; ragnello@bnycogen.com; rck@readlaniado.com; richterm@coned.com; ringwaldt@conedsolutions.com; rjkoda@earthlink.net; rkreppel@energypartnersusa.com; rloughney@couchwhite.com; rmooney@bowlaw.com; robert.hoaglund@us.ngrid.com; robert.hoaglund@us.ngrid.com; rrapp@keyspanenergy.com; rsbrown@ecubedllc.com; sara.oneill@constellation.com; seth.lamont@consumer.state.ny.us; Sheehan, Timothy; skardas@cenhud.com; smg4@westchestergov.com; spetersen@ssmplaw.com; srantala@energymarketers.com; tsick@ebidenergy.com; Thomas.Riozzi@ThompsonHine.com; ufogel@aol.com; walterm@nyct.com; wemples@conedenergy.com; wortham@1strochdale.coop; wstoughton@naenergy.com Subject: Case 04-E- 0572, Consolidated Edison Company of New York, Inc. - Electric Rates- Discovery Dispute # 1-Informal Ruling.

Consistent with a notice given yesterday by Mr. Sheehan, a telephone conference call was held earlier concerning Consolidated Edison's objections to NYPA discovery requests 1, 3-6, and 8. Active parties on the call included Con Ed, NYPA, DPS Staff, NYC, Westchester, CPB, NY Energy Buyers Forum, Owners' Committee, Consumer Power Advocates, and E Cubed.

At the outset, all of the discovery requests in question comply with 16 NYCRR 5.1(a).

With respect to NYPA -1, there are a number of parties that want access to the ECOS model used by the company. However, counsel for the company advises that the model is subject to a licensing agreement and cannot be released by Con Ed to other parties for such use. The outcome is that Consolidated Edison will promptly negotiate the lowest rate it can for use of the model for this case alone by other parties who identify themselves to Con Edison by not later than next Tuesday morning. It is generally understood that parties with divergent interests on cost allocation issues could enter into such an arrangement together, provided each could privately change inputs to the model for its purposes. Assuming a reasonable rate can be agreed upon and appropriate nondisclosure and licensing agreements can be entered into timely, Consolidated Edison would thereafter promptly provide to eligible parties in electronic format the ECOS model with the company's inputs already in place. Con Edison will report next week on the status of this effort. If the rate negotiated is too high for all those who want to use the model, this outcome might have to be revisited in whole or in part.

One other argument made in connection with NYPA -1 warrants comment. It was suggested that Con Edison never should have entered into an agreement that does not provide for use of the ECOS model by parties to Con Ed rate cases. This is an important point given the Commission's long-standing policy of having open proceeding in which active parties can participate effectively. However, I do not know for a fact that such an alternative arrangement could have been made in this instance. Moreover, even if the argument is correct, that does not afford us the ability to ignore the existing licensing agreement.

As to NYPA-3 through NYPA-6 and NYPA-8, Consolidated Edison's objections were sustained based on the language of 16 NYCRR 5.8 (c). Consolidated Edison stated that it did not prepare ERP-1 and ERP-2 based on prior studies and that the information sought could be gleaned by any party in possession of work papers for the present studies and those submitted in past proceedings. In response to a direct question from me, a member of the rate panel also stated he could not give an opinion about why the claimed revenue deficiency for NYPA has increased in comparison with the results of the prior studies. In these circumstances, I conclude that Con Edison is being asked to prepare a study in a situation where it does not uniquely possess the needed information and where it does not uniquely have the ability to prepare such a study. Thus, the general rule set forth in the first sentence 16 NYCRR 5.8(c) applies. The outcome here is based heavily on the assumption that Consolidated Edison or NYPA will be able to find and provide to others copies of workpapers for prior ECOS and demand studies. If this assumption turns out to be incorrect, this outcome will be revisited.

One last point is that the results of the company's ECOS and Demand studies are clearly very important to a number of parties. I expect Con Edison and all affected parties to work quickly and cooperatively to implement the results of today's conference call.

Gerald L. Lynch ALJ

Also, please note that Mr. Joe will soon be removed from the active parties list, as requested by Amerada Hess. Accordingly, he is not copied on this note. [Emphasis added.]

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Exhibit \_\_ (NYPA-2) Page 7 of 7 .

# 1994 ECOS vs. 2002 ECOS Comparison

<b>二、你们的小子</b> 有多少你是在国	Con Edison C	Sustomers		NYPA Custo	mers	
ECOS Comparison	1994	2002		1994	2002	
2002 vs. 1994	ECOS	ECOS	Difference	ECUS	The ECUS in the appendix	Dimerence
Rate Baser, A faith and a state and a state and a state and	]					
Total Rate Base	7,741,931,980	6,880,717,633		797,761,718	946,525,947	
less: Production	(2,292,880,886)	(49,530,670)			-	
less: DSM	(138,158,054)	-		(184 392)	-	
less: System Benefits	(7,062,051)		· ·	(2.648.018)	• •	
1855, Revenue itentis		······	-			
T&D Rate Base	5,224,932,665	6,831,186,963	•	794,929,308	946,525,947	
Overall ECOS Rate of Return	<u>9.18%</u>	<u>9.65%</u>		<u>9,18%</u>	<u>9.65%</u>	S
Operating Income	479,648,819	859,209,542	. <u> </u>	72,974,510	91,339,754	
Operating Costs						
Total Operating Costs [1]	3,809,857,947	1,369,835,949		158,161,386	164,767,819	
less: Production	(2,349,034,513)	(9,259,003)	22	• •	-	
less: DSM	(97,271,329)	-		(0.400.000)	-	
less: System Benefits	(117,030,785)			(3,102,030)	•	
less: Revenue Items	·	•	-	<u> </u>	<u> </u>	
T&D Operating Costs	1,248,521,320	1,360,576,946	erte e	154,999,350	164,767,819	•
Total Revenue Requirements	1,726,170,139	2,019,786,488	293,616,349	227,973,860	256,107,573	28,133,712
			L		14	12%
	- M					
Billing Demand						
Billing Demand (KW)	130,052,022	161,997,951	31,945,929	20,868,616	21,921,100	1,054,484
	•	2.00	25%		3	1.27 Satisfier 5%
Cost per KW	\$ <sup></sup> 13.27 \$	12.47	9.19 \$	10.93 \$	11.6B	26.68

Exhibit \_\_ (NYPA-3) Page 2 of 11

## Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 1 Data Requests) NYPA's Discovery

Responder: Electric Rate Panel

- NYPA-3 Please describe all methodological changes to the functionalization of costs between the cost of service study filed in this proceeding and those filed in Cases 96-E-0897 and 94-E-0334.
- Response: While the overall theory for these studies did not change, numerous, incalculable minor changes were made. To determine each and every one of these minor changes would require a study that has not been performed.

Exhibit \_\_ (NYPA-3) Page 3 of 11

# Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 1 Data Requests) NYPA's Discovery

Responder: Electric Rate Panel

- NYPA-4 Please describe all methodological changes to the classification of costs between the cost of service study filed in this proceeding and those filed in Cases 96-E-0897 and 94-E-0334.
- Response: See response to NYPA-3

# Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 1 Data Requests) NYPA's Discovery

- Responder: Electric Rate Panel
- NYPA-5 Please describe all methodological changes to the allocation of costs between the cost of service study filed in this proceeding and those filed in Cases 96-E-0897 and 94-E-0334.
- Response: See response to NYPA-3.

Exhibit \_\_ (NYPA-3) Page 5 of 11

# Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 1 Data Requests)

NYPA's Discovery

- Responder: Electric Rate Panel
- NYPA-6 Please describe all methodological changes to the allocators used in the cost of service study filed in this proceeding and those filed in Cases 96-E-0897 and 94-E-0334.
- Response: See response to NYPA-3.

Exhibit \_\_ (NYPA-3) Page 6 of 11

# Consolidated Edison Company of New York, Inc.

## Case 04-E-0572 (Set # 1 Data Requests) NYPA's Discovery

- Responder: Electric Rate Panel
- NYPA-8 Please list and explain all methodological changes, including sample design and other methodological changes, between the class demand study filed in this proceeding and those filed in Cases 96-E-0897 and 94-E-0334.
- Response: See response to NYPA-3.

Exhibit \_\_ (NYPA-3) Page 7 of 11

#### Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 4 Data Requests) NYPA's Discovery

Responder: Electric Rate Panel

NYPA-98 Please refer to Exhibit ERP-1, pages 7 and 8.

- a. Please explain why the HT 60 Cycle (D04) allocation methodology used in Case 96-E-0897 was not utilized as the appropriate allocation methodology in this ECOS.
- b. Please provide the DO4 allocation factors utilizing the D04 allocation methodology used in Case 96-E-0897 updated for the 2002 Class Demand Study data.

Response:

- a. The premise of the question is incorrect. The referenced methodology was used in this study.
- b. Not applicable. See response to (a) above.

Exhibit \_\_ (NYPA-3) Page 8 of 11

### Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 4 Data Requests) NYPA's Discovery

Responder:	Electric Rate Panel	
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NYPA-106 Please refer to Exhibit ERP-1, pages 7 and 8.

- a. Please explain why the D08/D09 allocation methodology used in Case 96-E-0897 was not utilized as the appropriate allocation methodology in this ECOS.
- b. Please provide what the allocation factors would have been utilizing the D08/D09 allocation methodology used in Case 96-E-0897 updated for the 2002 Class Demand Study data.

Response: a. The methodologies used in Case 96-E-0897 and in the current case are essentially the same and follow the principles described in response to NYPA-102. However, the study presented in Case 96-E-0897 separated low tension demands into network and radial loads. This network/radial split is no longer made because it depended upon the overhead system being completely radial and the underground system being completely network. Presently, customers being served on radial systems, for example, may be receiving service through a combination of overhead and underground equipment.

b. Providing this response would require a study that the Company is not required to perform.

Exhibit \_\_ (NYPA-3) Page 9 of 11

# 2002 vs. 1994 Allocation Analysis

ECOS Allocation Comparison 2002 vs. 1994	1994 EC NYPA	OS Tetal Con Edison	Allocation	2002 E	COS Total Con Edison	Allocation	Percentige Increase Re	Change in Revenue iquirements
		1997 H				14 000484	2.25444	(1 051 070)
D03	1,475,588	10,141,171	14.5504%	1,891,243	. 11,891,384	14,222476	-2.234476 \$	(1,351,672)
D04. (Provide the second secon							s	
D04	1,696,633	11,374,519	14.9161%	1,918,900	13,078,636	14.6743%	-1.6212% \$	(1,868,771)
D09	454.040	4 004 741	0 400404	10 876 070	207 018 895	9 0713%	8 2785% <b>\$</b>	633 003
D08	154,649	1,824,243	8.486476	10,070,070	201,010,000	0.021074	0.210076 0	000,000
D09	829,715	9,709,984	8.5450%	287,583,573	3,187,814,410	9.0213%	5.5749% \$	3,075,109
Totalia Rationa and an and a state	NIN CALL				and the second second	CALCON LOC		489,988

[1] Derived by changing the allocation factors in the ECOS model provided by Con Edison.

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# Functionalization Analysis (Rate Base)

Functionalization Analysis	1994 ECOS	Pct (1)	2002 ECOS	Pct (3)	1010- (2) TTL(3) 28		See below)	
Rate Base					a. "			
Transmission High Tension Low Tension Demand Low Tension Customer Other [1]	1,128,068,306 2,235,776,672 1,711,092,755 298,731,655 645,374,385	19% 37% 28% 5% 11% _	1,073,991,057 2,834,940,035 2,699,029,657 266,365,936 1,004,732,707	14% 38% 34% 3% 13%	1,477,515,284 2,928,241,719 2,239,521,983 390,997,896 644,682,510	(403,634,227) (91,301,684) 459,507,874 (124,621,960) 160,050,197	14.222% \$ 14.874% 9.021% 4.784% 12.098%	(57,408,589) (13,397,850) 41,453,749 (5,962,231) 19,363,294
Total design of the second second second	6,019,861,973	100%	7,878,949,392		7,878,949,392	Statistics (1.2)	gal a procession	(15,949,607)
NYPA's Allocation		•	ST 8	•			24	
Transmission High Tension Low Tension Demand		. '	152,731,912 416,006,566 243,468,641	14.222% 14.674% 9.021%	· 3		· ·	
Low Tension Customer Other [1]	8 B	· · ·	121,555,205	12.098%	Star i f			

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# Functionalization Analysis (Total Operating Costs)

Functionalization Analysis	1994 ECOS	Pct (1)	2002 ECOS	Pct (3)	(2)*TTL(3)	(3)-(0)	(See below)	NYPA Impact (8)*(7)
Total Operating costs						e -		
Transmission High Tension Low Tension Demand Low Tension Customer Other [1]	204,717,741 428,270,867 305,008,263 53,654,233 409,869,556	15% 31% 22% 4% 29%	268,679,609 434,485,698 455,263,768 48,393,755 338,319,629	17% 28% 28% 3% 22%	225,434,898 471,611,297 335,874,685 59,083,968 451,347,809	43,444,811 (37,115,599) 119,389,081 (12,690,213) (113,028,180)	14.222% \$ 14.874% 9.021% 3.783% 5.894%	6,178,919 (5,448,441) 10,770,485 (480,088) (6,682,203)
Total "Total"	1,401,520,870	t <sub>in</sub> an a station	1,643,362,867	99 (* 14 (* 1 <sub>9</sub> 1)) 14 (4 (* 1 <sub>9</sub> 1))	1,543,352,667	eren anderen er anderen er	es problèg recent	4,360,683
NYPA's Allocation					0			
Transmission High Tension Low Tension Demand Low Tension Customer Other			38,241,225 63,759,043 41,070,892 1,755,137 19,941,522	14.222% 14.674% 9.021% 3.783% 5.694%			0	·
······································	nit statenting	tanta ang ata ata	184 787 849	n militar en 14	9 . Y			

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# Rate of Return Calculation

Rate of Return Comparison		Total	NYPA Deficiency at		Revised ECOS	NYPA Deficiency at	i de la compañía de la
		Con Edison	02 ROR		ROR	Revised ROR	Difference
OPERATING REVENUES							
TOTAL OPERATING REVENUES		2,621,789,348	234 887 519			234,887,519	
OPERATING EXPENSES	the second						
OPERATION & MAINTENANCE		669,049,712	61,001,552		•	61,001,552	
DEPRECIATION & AMORTIZATION		331,167,178	39,040,254			39,040,254	
PROPERTY TAXES		492,538,792	58,739,898			58,739,888	
PAYROLL & MISC. TAXES		60,516,300	5,954,948			5,954,946	
GAIN ON DISPOSAL OF PLANT		339,690	31,169	• •		31,169	
STATE INCOME TAX		60,931,822	2,947,977			2,947,977	
FEDERAL INCOME TAX	-	242,969,012	10,985,587			10,985,587	
TOTAL OPERATING EXPENSES		1,858,512,494	178,701,392			178,701,382	. •
UTILITY OPERATING INCOME		765,278,854	56,186,138		•	56,188,138	
UTILITY RATE BASE		7,928,480,062	946,525,947			948,525,947	
RATE OF RETURN (%)		9.65%	5.94%			5.94%	
INDEX		100%	61%			61%	
DEVIATION		-	(3.72)			(3.72)	
TOLERANCE BAND +10%	· 8	10.62%		•			. •
TOLERANCE BAND -10%		8.69%					
REVENUE DEFICIENCY			(43,307,816)			(33,783,103)	(9,624,713)
			100 R0404				

- Composite Tax Rate

39.88%

39.88%

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Exhibit \_\_ (NYPA-4) Page 2 of 18

# High Tension Allocator

			TOTAL	TOTAL	TOTAL	TOTAL
	RATE OF RETURN STATEMENT		SYSTEM	CON ED	NYPA	EDDS/PFJ
	· D			(2)	(3)	(4)
1	TOTAL OPERATING REVENUES		2,621,789,348	2,352,115,464	234,887,519	34,786,366
. 2		•.				
3.	OPERATING EXPENSES					
4	<b>OPERATION &amp; MAINTENANCE</b>		668,049,712	600,303,312	60,876,709	6,869,691
5	DEPRECIATION & AMORTIZATION	•	331,167,176	268,148,170	38,958,066	4,060,940
6	PROPERTY TAXES		492,538,792	427,468,142	58,653,096	6,417,555
7	PAYROLL & MISC. TAXES		60,516,300	53,911,719	5,942,397	662,184
8	GAIN ON DISPOSAL OF PLANT		339,680	304,756	31,142	3,782
9	STATE INCOME TAX	*	60,931,822	56,944,614	2,975,853	1,011,354
10	FEDERAL INCOME TAX		242,969,012	227,662,178	11,110,478	4,196,357
11			4 955 512 404	1 654 740 801	178 547 740	23 224 863
12	TOTAL OPERATING EXPENSES		1,000,012,494	1,034,742,031	110,041,140	23,221,003
14	UTILITY OPERATING INCOME		765,276,854	697,372,573	56,339,779	11,564,502
15	••					
16	UTILITY RATE BASE		7,928,480,062	6,882,676,008	944,526,727	101,277,326
17					· .	
18	RATE OF RETURN (%)		9.65%	10.13%	5.96%	11.42%
19						
20	INDEX		1.00	1.05	0.62	1.18
21						<u> </u>
22	DEVIATION		.0.00	0.48	-3.69	1.77
23						
24	TOLERANCE BAND +10%	·	10.62%			
25	TOLERANCE BAND -10%		8.69%			
26	· ·			•	_	
27	REVENUE SURPLUS		· ·		0	
28	REVENUE DEFICIENCY				42,753,424	
			222222333333	8222200220		
	Con Edison's Filed Deficiency				43,307,816	
	Impact of Revised High Tensi	on Allocator			5 (544,392)	

# High Tension Allocator (cont.)

D04 - HT 60 CYC		High Tension NCP	kW's at the Gener	rator Level			
		Report 6	Report 6			Summer	ST. SANGER
		Summer	Winter	Moasuro [1]	Percentage	only	Percentage
	a second max max					-	
Con Edison				•	•		
SC No	1	4,103,150	2,300,179	4,103,150	31.378%	4,103,150	31.404%
SC No	1-WH	18,425	12,351	18,425	0.128%	18,425	0.128%
SC No	2	528,838	376,432	528,838	4.028%	526,830	4.03270
SC No	14-1	188	141	100	2 9 1 9 4	400 733	3 821%
SC No	4	488,233	700 872	1 084 400	8 140%	1 064 400	B 147%
SC No	4100	1,004,400	1 096	1 459	0.011%	1 459	0.011%
SC NO	5 TOD	18.053	14 754	16 053	0 123%	16.053	0.123%
SCNO	8	2 4 1 4	2 474	2 474	0.019%	2.414	0.018%
SCIND	7	5	63 230	38.691	0.281%	36.691	0.281%
SC NU	, .	450 453	265 257	459 453	3 514%	459 453	3.517%
SC ND	atop	41 503	24 4 24	41 503	0.317%	41,503	0.318%
SC No		3 350 118	2.429.017	3,350,118	25.619%	3,350,118	25.641%
SC No	aton.	730 138	522,180	730,136	5.584%	730,136	5.588%
SC No	12	26.429	45.447	26.429	0.202%	26,429	0.202%
SCNO	12700	37 375	62.209	37.375	0.285%	37,375	0.286%
SCINU	12100	23 672	23.809	23 809	0.1B2%	23.622	0.181%
CO Use G&S	13100				0.000%		0.000%
				10.005.200		10 005 405 18	200 00 007 404
TOTAL CON ED		10,835,485	7,253,580	10,935,732	CS.02007	10,835,465	03.09/1176
	•	83.697%	80.755%		· · · ·		• .
		1					
PASNY Delivery	Service			•	, <b>.</b>		
ec 82	Gen S	4 110	6.055	B.055		4,110	0.031%
SC 84	CR	2 374	1.927	2,374		2,374	0.018%
SC 64TOD	CR	114,334	102,603	114,334		114,334	0.875%
SC 85	Traction	139,305	14B,173	148,173		139,305	1.066%
SC 68	St Lta.	14,984	15,012	15,012		14,984	0.115%
SC 68	MUDWR	172,361	131,229	172,361		172,381	1.319%
SC 68TOD	MUDWR	58,192	38,246	58,182		58,192	0.445%
SC 69	Gen L	116,9B1	112,511	116,981		118,981	0.895%
SC 69TOD	Gen L	112,050	79,881	112,050		112,050	0.858%
SC 80	SL NYC	91,096	86,232	91,098		91,098	0.697%
SC 82	MUDWHT	States 1,175	1,262			1,175	0.009%
SC 85	TA Sub	360,938	308,350	360,938		360,938	2.763%
SC 85	TA Plt	· ··	•	-		•	0.000%
SC 88TOD	wrc	•	-	-		-	0.000%
SC 91	NYCPublg	432,155	283,349	432,155		432,155	3.308%
SC 91TOD	NYCPublg	288,004	230,091	289,004		288,004	2.204%
		1 009 050	1 524 921	1 918 900	14 8743%	1 908 059	14 6037%
TUTAL PASNT D	15	14 60494	18 07794	1,010,000		.,	
	GL.	14.00470	10.87170	·			
EDDS/PFJ Deliv	ny Service						
		51 233	47 650	51,233		51,233	0.392%
EDDSPFJTOD		170,771	156,081	170,771		170,771	1.307%
						000.004	
TOTAL EDDS/PF	J	222,004	203,731	222,004	1,09777	222,004	1.0002%
		1.699%	2.288%				2 .
TOTAL SYSTEM		13,065.548	8,982,232	13,076,636	100.000%	13,065,540	100.000%
		_	• • •	× .			

Note: [1] - Based on 'higher of' summer/ winter except for SC-7, SC-12, SC-12(TOD) & SC-82, which are based on summer only.

Exhibit \_\_ (NYPA-4) Page 4 of 18

### Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 4 Data Requests) NYPA's Discovery

Responder: Electric Rate Panel

NYPA-94 Please refer to Exhibit ERP-1, pages 7 and 8. Please fully explain the rationale for allocating HT 60 Cycle-related costs on the basis of the highest summer or winter NCD demands for all Con Edison service classes except for the SC-7, SC-12 and SC-12TOD service classes (i.e., D04 allocator), which used only the summer demands for the latter group.

Each component of the electrical delivery system is sized to meet peak kW **Response:** demands imposed on that component. Since it is not possible to measure peak demands at each location on the grid and, further, to associate each location with a particular customer, electrical equipment is grouped in three main categories and customers are grouped into service classes for cost allocation purposes. The equipment categories are: the secondary delivery system (low tension system), which is electrically closest to customers, the primary delivery system (high tension system) which is electrically further removed, and the transmission system, which is electrically furthest from individual customers. Also, as a practical matter, there are three categories of demands that are used for cost allocations: individual customer maximum demand (ICMD), which corresponds to billing demand, class non-coincident peak demand (NCP), which is the total class peak demand, coincident within the class but non-coincident with the system peak, and system peak demand, which is the maximum coincident demand for the entire system.

> The principal involved in selecting the appropriate allocation factors is diversity of demand. At the delivery point to the customer, the system is designed to meet the customer's ICMD. However, as one proceeds upstream from the customer, diversity of demand is reflected in system designs, and equipment is designed to meet class NCPs. For example, a substation that serves only residential customers would generally be designed for the residential class NCP. Similarly, a substation that serves only commercial load would be designed for the commercial class NCP. Substations that serve load that is composed of a mixture of various classes would be designed to serve the diversified demand of the customer class mix. In this latter case, the class NCP allocation reflects a reasonable sharing of the benefits of diversity among classes. Finally at the transmission level, only the peak demand of all customers is reflected in system designs.

The referenced classes are 100% low tension and their winter peak loads are much greater than their summer peak loads. Therefore, the demand
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Exhibit \_\_ (NYPA-4) Page 5 of 18

responsibility for the low tension system should be based on their winter peak demands. However, their high tension allocation is based on summer peak demands to recognize that these customers are geographically dispersed throughout the service territory and that the *high tension system is generally summer peaking.* [Emphasis added.]

### Consolidated Edison Company of New York, Inc. Case 04-E-0572 (Set # 1 Data Requests) CITY's Discovery

#### Responder: Electric Rate Panel

CITY - 35 Provide the complete basis for the specific 75/25 weightings to account for the diversity of individual customer loads in multiple dwellings, including but not limited to any metering samples that measure this diversity.

The low tension system is designed to reflect peak demands occurring on various Response: parts of the low tension grid. The closer the grid equipment is to the customer, the greater the importance of individual customer maximum demands (ICMDs in the ECOS study) and the further the grid equipment is from the customer, the greater the importance of class diversified peak demand (NCP in the ECOS study). To reflect this design principle, the low tension allocation factor is equal to the average of the class NCP and the class ICMD. However, underlying the use of the class ICMD is the assumption that the individual customer ICMDs are actually experienced at the customer's connection to the grid. While this is a correct assumption for nonresidential customer classes, it is not correct for the residential class because many residential customers, while individually metered, reside in apartment buildings. For apartment buildings, simply adding individual customer peak demands would overstate the demand experienced on the building's connection to the grid because of the diversity of residential load within the building. To account for this diversity, the residential NCP is averaged with the residential ICMD to derive the peak demand at the residential class' connection to the low tension grid. This adjusted demand is then averaged with the NCP to derive the residential class low tension demand allocation factor. The net result is a weighting of 75% and 25% for the residential ICMD and NCP, respectively. (Note as explained above, the weighting for the other classes is 50%/50%.) (Emphasis added.)

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Exhibit \_\_ (NYPA-4) Page 7 of 18

### Low Tension Allocator

	STSIEM	CON ED	NYPA	EDDS/PFJ
	()	(2)	(0)	(4)
TOTAL OPERATING REVENUES	2,621,789,348	2,352,115,464	234,887,519	34,786,366
			·	
OPERATING EXPENSES	• •		×	
OPERATION & MAINTENANCE	668,049,712	602,667,868	58,783,180	6,598,664
DEPRECIATION & AMORTIZATION	331,167,176	289,796,134	37,498,384	3,872,657
PROPERTY TAXES	492,538,792	431,494,996	55,071,928	5,971,868
PAYROLL & MISC. TAXES	60,516,300	54,101,671	5,774,535	640,094
GAIN ON DISPOSAL OF PLANT	339,680	308,978	27,379	3,323
STATE INCOME TAX	60,931,822	56,209,873	3,627,755	1,094,194
FEDERAL INCOME TAX	242,969,012	224,231,712	14,154,837	4,582,464
TOTAL OPERATING EXPENSES	1,856,512,494	1,658,611,233	174,937,997	22,763,264
UTILITY OPERATING INCOME	765,276,854	693,304,231	59,949,522	12,023,102
UTILITY RATE BASE	7,928,480,062	6,931,309,640	901,395,781	95,774,641
	S			
RATE OF RETURN (%)	9.65%	10.00%	6.65%	12.55%
NDEX	1.00	1.04	0.69	1.30
DEVIATION	0.00	0.35	-3.00	2.90
TOLERANCE BAND +10%	10.62%			
TOLERANCE BAND -10%	8.69%			
REVENUE SURPLUS				
REVENUE DEFICIENCY			30,528,015	
			69999999999	02030369569
Con Edison's Filed Deficiency		÷	43,307,816	
	OPERATING EXPENSES OPERATION & MAINTENANCE DEPRECIATION & MAINTENANCE DEPRECIATION & AMORTIZATION PROPERTY TAXES PAYROLL & MISC. TAXES GAIN ON DISPOSAL OF PLANT STATE INCOME TAX FEDERAL INCOME TAX TOTAL OPERATING EXPENSES UTILITY OPERATING INCOME UTILITY OPERATING INCOME UTILITY RATE BASE RATE OF RETURN (%) INDEX DEVIATION TOLERANCE BAND +10% TOLERANCE BAND +10% TOLERANCE BAND -10% REVENUE SURPLUS REVENUE DEFICIENCY Con Edison's Filed Deficiency	IOTAL OPERATING REVENUES  2,021,703,340    OPERATION & MAINTENANCE  668,049,712    DEPRECIATION & MAINTENANCE  668,049,712    DEPRECIATION & MAINTENANCE  931,167,176    PROPERTY TAXES  492,538,792    PAYROLL & MISC. TAXES  60,516,300    GAIN ON DISPOSAL OF PLANT  339,680    STATE INCOME TAX  60,931,822    FEDERAL INCOME TAX  60,931,822    FEDERAL INCOME TAX  242,959,012    TOTAL OPERATING EXPENSES  1,856,512,494    UTILITY OPERATING INCOME  765,276,854    UTILITY RATE BASE  7,928,480,062    RATE OF RETURN (%)  9.65%    INDEX  1.00    DEVIATION  0.00    TOLERANCE BAND +10%  10.62%    TOLERANCE BAND -10%  8.69%    REVENUE DEFICIENCY	IOTAL OPERATING REVENUES  2,021,103,000  2,021,103,000    OPERATING EXPENSES  668,049,712  602,667,868    DEPRECIATION & MAINTENANCE  668,049,712  602,667,868    DEPRECIATION & AMORTIZATION  331,167,176  299,786,134    PROPERTY TAXES  492,538,792  431,494,996    PAYROLL & MISC. TAXES  60,516,300  54,101,671    GAIN ON DISPOSAL OF PLANT  339,680  306,978    STATE INCOME TAX  60,931,822  56,209,873    FEDERAL INCOME TAX  242,969,012  224,231,712    TOTAL OPERATING EXPENSES  1,856,512,494  1,658,811,233    UTILITY OPERATING INCOME  765,276,854  693,304,231    UTILITY RATE BASE  7,928,480,062  6,931,309,640    RATE OF RETURN (%)  9,65%  10.00%    NDEX  1.00  1.04    DEVIATION  0.00  0.35    TOLERANCE BAND +10%  10,62%    TOLERANCE BAND +10%  8,69%    REVENUE SURPLUS  8,69%    Con Edison's Filed Deficiency  20	IOTAL OPERATING REVENUES    2,021,103,540    2,021,103,641    254,001,013      OPERATION & MAINTENANCE    668,049,712    602,657,868    58,763,160      DEPRECIATION & MAINTENANCE    331,167,176    289,796,134    37,498,384      PROPERTY TAXES    492,538,792    431,494,996    55,071,928      PAYROLL & MISC. TAXES    60,516,300    54,101,671    5,774,535      GAIN ON DISPOSAL OF PLANT    339,880    306,978    27,379      STATE INCOME TAX    60,931,822    56,209,873    3,627,755      FEDERAL INCOME TAX    242,959,012    224,231,712    14,154,837      TOTAL OPERATING EXPENSES    1,856,512,494    1,858,611,233    174,937,997      UTILITY OPERATING INCOME    765,276,854    693,304,231    59,949,522      UTILITY OPERATING INCOME    765,276,854    693,304,231    59,949,522      UTILITY OPERATING INCOME    7,928,480,062    6,931,309,640    901,395,781      RATE OF RETURN (%)    9,85%    10.00%    6,65%      INDEX    1.00    1.04    0.69      DEVIATION    0.00    0.35<

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Exhibit \_\_ (NYPA-4) Page 8 of 18

## Low Tension Allocator (cont.)

DOL/DOS Alles	the page at	1	See 3. 1	Carl Carl	Par Can Balance		TP LIP	Lew Tension Clas				Weighted Averages of	NCP's and ICMD's	1, 41 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Toightad Averages of	NCP's and ICMO's	
1. · · · · · · · · · · · · · · · · · · ·	ald Line		Decend Kd	KW			KW Report 1	Facert 8	1. 1. 		1.100				- d <sub>a</sub>	. S. A. 1 (S.	na boyithan	n de G
S PER CON	an a		Col.7	Col. 7	Higher		Col. S	Cal S	Higher	유명사람	ICHO 2	LT H	Average		ICHO Weight	LTHW	Average	o yen a
Con Edison ·		· , 19-					· .			•		,						
SC NO	1		6,182,421	6,973,229	8,182,421	47 351%	3,893.689	2,102,689	9,593,089	31.947%	25%	70%	4,968,072	37 410%	100%	0%	8,192,421	47.351
SC No	1-WH		45,580	44,089	45,580	0 20476	13.5%	957 733	400.000	4 350%	00%	50%	877.171	6.101%	100%	0%	854,378	4.861
SC No	2		101	130,003	185	0.001%	120	134	178	0 002%	50%	50%	172	0.001%	100%	0%	165	0.0011
SC No	4		504,504	353,835	\$04,504	2 920%	489,378	300.785	489,379	4 092%	50%	50%	488,941	3 559%	100%	0%	504,504	2 920
SC No	4TOD		889,049	753,718	969,049	5710%	934,923	594,419	\$34,823	8.150%	60%	50%	951,435	7,243%	100%	0%	969,049	0.002
SC No	5		206	230	258	0.002%	270	156	210	0.002%	50%	50%	3 369	0.025%	100%	DN	3,699	0 0221
SCNo	<u>атоо</u>		3,719	3,587	3,000	0.014%	2 291	2,248	2,249	0.020%	60%	50%	2,348	0.018%	100%	0%	2,948	0.0141
SC No			101 230	144.237	144,237	0 835%	34,620	60,008	80,008	0.523%	25%	75%	81,084	0.811%	100%		144,237	0 835
SC No			450,532	271,854	450,532	2 885%	430,020	251,729	438,020	3.801%	50%	50%	448,278	3 377%	100%	0%	480,532	2 885
SC No	POD		42,595	24,390	42,595	0 246%	39.326	23,178	39,360	0.343%	50%	2059	40,981	0 JUNN 78 478%	100%	UN	3 889 588	22 387
SC No	8		3,058,559	2,996,420	3,303,503	22 387%	585 034	419 405	ER5.034	5,100%	50%	53%	\$10,755	4 801%	100%	0%	838,475	3 68.7
SC NO	12		27.265	49,035	48,035	0 278%	25,081	43,128	43,129	0 378%	50%	50%	45,582	0 343%	100%	0%	48,035	0 278
SC No	12100		58,548	83,000	63,008	0 305%	35,481	59 638	58,038	0.515%	50%	50%	81,021	0.480%	100%	0%	83,008	8.3851
SC No CO Une G&S	13700			:	:	0 000%	1	0.5		0.000%	50%	50%	:	0.000%	100%	0%	:	0.0009
TOTAL CON I	<b>5</b> 0		15,758,384	11,842,834 81.425%	16,845,047	91 694W	10,136,130 99,127%	6,699,772 67.217%	10,202,968	88.950%			11,923,329	89 820%			15,845,047	S1 6941
PASNY Delive	ny Service				· · ·	· ·												
80.117	Gen S		5.293	7.710	7,710		3,900	5,748	5,748		50%	50%	6,728	0.051%	100%	0%	7,710	0.0451
SC 54	CR		2,340	1,905	2,340		2,253	1,620	2,253		60%	\$2%	2,297	0.017%	100%	5%	2,340	0.0141
SC 64TOD	CR	•	12,230	10,907	12,239		11,428	10,255	11,425		60%	50%	11,025	0.485%	10076	UN	73.434	8 4251
5C 85	Traction		-70,218	73,434	14,548		16 770	14,248	14.245	·	50%	50%	14,247	0 107%	100%	0%	14,248	0 0825
SC 65	MUDWR		159.474	125 219	159,474		159,691	121,675	159,691		50%	50%	159,583	1 202%	100%	0%	159,474	0.023
SC INTOO	MUDWR		59,484	38,190	59,484		55,224	38.295	65,224		50%	50%	68,944	0 429%	100%	0%	59,454	8 3 3 2
SC 69	Gen L		131,695	112,667	131,595		102,497	183,99	102,487		00%	2076	50 235	0 378%	100%	05	54.175	0.1021
SC 69TOD	Gen L		04,175 at 655	40,371	84,652		86.450	61,634	98,450		60%	50%	88,501	0.652%	100%	0%	98,552	0.6011
SC 80	MUCHWIT		1,118	1,182	1,102		1,115	1,198	1,198		50%	50%	1,190	0.009%	100%	0%	1,182	0.007
SC 85	TA Sub		3,113	2,604	3,113		2,852	2,437	2,652		50%	50%	2,883	0.022%	100%	0%	3,113	0.000
SC 85	TAPE		-					:			50%	50%		0 000%	100%	0%		0 0007
80.91	NYCPublic		481,354	277,109	481,354		405,119	245,574	405,119		60%	50%	433,237	3 284%	100%	8%	481,354	2 8701
BC SITCO	NYCPublo		203.991	159,449	203.091		174,212	139,181	174,212		50%	60%	189,102	1.425%	100%	0%	203,991	1,1801
TOTAL PASH	Y DIS		1,265,245	948,999 7.319%	1,259,971	7 349%	1,118,712 8,824%	851,078 11.079%	1,125,134	0.009%			1,197,553				1,269,971	HEREIMEN 7.3487
EDOSPYJDe	Every Service	1.1																
EDOSPFJCON	4		56,725	53,211 100,676	66,725 109,534		47,724 94,645	44,385 68,505	47,734		50%	50%	52,225 101,590	0.393%	100%	0%s	58,725 108,534	0 3291 0 8291
TOTAL EDOR	<b>PF</b> J		165,250	153,887 1.189%	165,259	0 958%	142,370 1,349%	130,890	142,370	1 241%			153,815	1.159%			165,259	0 955
TOTAL SYSTE	54		17,100,696	12,043,518	17,200,277	100 000%	11,390,217	7,691,740	11,470,482	100.000%			13,274,698	100 000%		· ·	17,290,277	100.000
(1)- A maximur	n af either the Su	anniner or We	er ICMO, weighte	I with the LT KW m	essure.													

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## **Congestion Rents**

	TOTAL	TOTAL	TOTAL	
KATE OF RETURN STATEMENT		(2)	(3)	(4)
TOTAL OPERATING REVENUES	2,621,789,348	2,339,904,186	247,098,796	34,786,366
- Operating Revenues Adjusted for Congestion Costs		(12,211,278)	12,211,278	
OPERATING EXPENSES				. 5 8
OPERATION & MAINTENANCE	668,049,712	600,181,019	61,001,552	6,867,140
DEPRECIATION & AMORTIZATION	331,167,176	268,067,661	39,040,254	4,059,261
PROPERTY TAXES	492,538,792	427,383,113	58,739,898	6,415,781
PAYROLL & MISC. TAXES	60,516,300	53,899,426	5,954,946	661,928
GAIN ON DISPOSAL OF PLANT	339,680	304,730	31,169	3,782
STATE INCOME TAX	60,931,822	56,056,075	3,863,822	1,011,924
FEDERAL INCOME TAX	242,969,012	223,831,116	14,938,988	4,198,908
TOTAL OPERATING EXPENSES	1,856,512,494	1,649,723,140	183,570,629	23,218,724
UTILITY OPERATING INCOME	765,276,854	690,181,046	63,528,167	11,567,641
				101 000 100
UTILITY RATE BASE	7,928,480,062	6,880,717,633	946,525,947	101,235,482
· · · · · · · · · · · · · · · · · · ·	0.050	40.000	0.7404	44 400
RATE OF RETURN (%)	9.65%	10.03%	6.71%	11.43%
		4.04	0.70	4 4 9
INDEX	1.00	. 1.04	0.70	1.10
	0.00		2.04	. 4 77
DEVIATION	0.00	. 0.30	-2.94	1.67
	10.62%			
	8 69%			
IULERANCE DAND -10%	0.00.00			
	60 839 261	n	0	1 361 965
	38 380 127	ů	31 096 538	0
	e============	C30005688888	000000000	
Can Edisan's Filed Deficiency	257429922899242		43,307,816	

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Exhibit \_\_ (NYPA-4) Page 10 of 18

# Congestion Rents (cont.)

Congestion Rents		2003 Congestion Rents
Congestion Rents		а 1
Total Congestion Rents	\$	196,626,759
less: Wholesale	2.37%	(4,660,054)
less: NYPA (per 2000 agreement)	. 6 -	(106,092,742)
Net Congestion Rents		85,873,963
NYPA's Transmission allocation (per 2002 ECOS)	14.22%	· ·
NYPA's portion of net congestion rents	1. 	12,211,278

Exhibit \_\_ (NYPA-4) Page 11 of 18

### Congestion Rents (cont.)

### CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. Electric Rates CASE No. 04-E-0572

### Response to New York City's 1st Set of Discovery

Responding Witness: Joseph A. Holtman

### <u>City 18:</u>

Provide the total amount of revenues that Con Edison received in congestion rents in 2003 as a result of its ownership of TCC rights.

#### Response:

In 2003, Con Edison received total congestion rents of \$196,626,759, which includes \$106,092,742 that was passed through to the New York Power Authority to cover its costs of serving customers in Con Edison's territory, pursuant to a 1989 agreement.

### Congestion Rents (cont.)

### CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. Electric Rates CASE No. 04-E-0572

#### Response to New York City's 1st Set of Discovery

Responding Witness: Joseph A. Holtman and the Electric Rate Panel

#### <u>City 14:</u>

Provide the total amount of TCC auction proceeds that Con Edison received in each of the years 2001, 2002 and 2003. Also, identify the percentage of each year's auction proceeds that was allocated to wholesale customers.

#### Response:

In 2001, Con Edison received TCC Auction revenues of approximately \$19 million from the Spring and Autumn Auctions. In 2002, it received approximately \$70 million from the Spring and Autumn Auctions. In 2003, approximately \$159 million was received from the Spring and Autumn Auctions.

The percentage allocated to wholesale customers, based on their energy usage, follows:

	<u>2001</u>	<u>2002</u>	<u>2003</u>
January		0.86%	1.42%
February		1.25%	2.57%
March		2.07%	2.76%
April		2.24%	2.76%
May	6.08%	2.38%	1.89%
June	5.67%	2.46%	2.21%
July	6.49%	3.89%	2.95%
August	4.22%	3.18%	2.12%
September	5.80%	2.46%	2.23%
October	1.93%	2.62%	1.27%
November	1.55%	1.62%	2.79%
December	2.72%	1.31%	3.52%

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### Breakdown of R&D

	RATE OF RETURN STATEMENT	TOTAL SYSTEM	TOTAL CON.ED	TOTAL NYPA	TOTAL EDDSAPFJ
		<b>O</b>	(2)	(3)	( <b>4</b> )
-1	TOTAL OPERATING REVENUES	2,621,789,348	2,352,115,464	234,887,519	34,786,366
2	- Cost adjustment to O&M for R&D expenses		1,298,071	(1,298,071)	
3	OPERATING EXPENSES			•	
4	OPERATION & MAINTENANCE	668,049,712	601,479,090	59,703,481	6,867,140
5	DEPRECIATION & AMORTIZATION	331,167,176	288,067,661	39,040,254	4,059,261
6	PROPERTY TAXES	492,538,792	427,383,113	58,739,898	6,415,781
7	PAYROLL & MISC. TAXES	60,516,300	53,899,426	5,954,946	661,928
8	GAIN ON DISPOSAL OF PLANT	339,680	304,730	31,169	3,782
9	STATE INCOME TAX	60,931,822	56,874,566	3,045,332	1,011,924
10	FEDERAL INCOME TAX	242,969,012	227,364,267	11,405,838	4,198,908
11			*****	***************	•••••••
12. 13	TOTAL OPERATING EXPENSES	1,856,512,494	1,655,372,852	177,920,917	23,218,724
14	LITILITY OPERATING INCOME	765.276.854	696.742.612	56,966,601	11.567.641
15					
16	UTILITY RATE BASE	7,928,480,062	6,880,717,633	946,525,947	101,236,482
17			<u>.</u>		
18	RATE OF RETURN (%)	9,65%	10.13%	6.02%	11.43%
19					
20	INDEX	1.00	1.05	0.62	1.18
21					
22	DEVIATION	0.00	0.47	-3.63	1.77
23					
24	TOLERANCE BAND +10%	10.62%	9		
25	TOLERANCE BAND -10%	8.69%	• •		
26					
27	REVENUE SURPLUS	60,839,261	0	0	1,361,965
28	REVENUE DEFICIENCY	49,293,333	0	42,009,745	0
		******	*****	6286555556	866666888888
	Con Edison's Filed Deficiency			43,307,816	
	[mpaciofRaD Costs			9 ((1-298,07/1))	

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## Breakdown of R&D (cont.)

R&D Adjustment	Total R&D	Direct Allocations	Direct Allocations	Indirect Allocations	Indirect Allocations	Total Allocations
Breakdown of R&D		, č				
A&G - PSC 920 A&G - PSC 921 A&G - PSC 930.2 A&G - PSC 930.2 Transmission - PSC 588 Distribution - PSC 588	1,258,570 251,284 40,528 948,352 2,909,788 4,922,918	14.22% 11.59%	413,B42 570,473	12.57% 12.57% 12.57% 12.57% 0.00% <u>0.00%</u>	157,810 31,578 5,083 119,177	157,910 31,578 5,093 119,177 413,842 570,473
Total	10,329,420		984,315		313,755	1,298,071
Indirect Allocator	; ; ;	· .	12.57%		•	0
2002 ECOS; O&M: Table 8, Page 49	Total System	NYPA	:			
Transmission Transmission	116,789,877	16,810,209 14:22%	2 ·			<u>**</u>
Distribution	377,985,110	43,796,990		D		
NYPA R&D	2002	2003	2-Year Average			
EPRI NYSERDA Other	1,736,855 1,600,000 1,389,155	1,600,000 1,800,000 2,332,190	÷ • •		. •	
Tatal	. 4,725,010	6,532,190	6,128,600			

.

## 2006 Functionalization Analysis

TOTAL	TOTAL	TOTAL	TOTAL
SYSTEM	CON ED	NYPA	EDDS/PFJ
0	(2)	( <b>3</b> )	(4)
2,621,789,348	2,352,115,464	234,887,519	34,786,366
		· · · ·	
668.049.712	600,181,019	61,001,552	6,867,140
331,167,176	288,067,661	39,040,254	4,059,261
492,538,792	427,383,113	58,739,898	6,415,781
60.516.300	53,899,426	5,954,946	661,928
339.680	304,730	31,169	3,782
60,931,822	56,971,921	2,947,977	1,011,924
242,969,012	227 784 517	10,985,587	4,198,908
***************	*****		
1,856,512,494	1,654,592,387	178,701 <b>,</b> 382 <sup>.</sup>	23,218,724
765,276,854	697,523,077	56,186,136	11,567,641
1968 - 3 ( - 4 ) ( - 5 ) ( - 4 ) ( - 5			12 J
7,928,480,062	6,894,108,444	935,637,363	98,752,762
9.65%	10.12%	6.01%	11./1%
1 00	1.05	0.62	1.21
0.00	0.47	-3.65	2.06
10.62%			
8.69%			
63,638,560	0	0	1,800,565
53,230,074	0	41,720,155	0
			069922299999
	TOTAL SYSTEM      2,621,789,348      668,049,712      331,167,176      492,538,792      60,516,300      339,680      60,931,822      242,969,012      1,856,512,494      765,276,854      7,928,480,062      9,655%      1.00      0.00      10,622%      63,638,560      53,230,074	TOTAL SYSTEM    TOTAL CON ED (2)      2,621,789,348    2,352,115,464      666,049,712    600,181,019      331,167,176    286,067,661      492,538,792    427,383,113      60,516,300    53,899,426      339,680    304,730      60,931,822    56,971,921      242,969,012    227,784,517      1,856,512,494    1,654,592,387      765,276,854    697,523,077      7,928,480,062    6,894,192,444      9,65%    10.12%      1,00    1.05      0,00    0.47      10,62%    8,69%      63,638,560    0      53,230,074    0	TOTAL SYSTEM    TOTAL CON ED    TOTAL NYPA      2,621,769,348    2,352,115,464    234,687,519      666,049,712    600,181,019    61,001,552      331,167,176    286,067,661    39,040,254      492,538,792    427,383,113    58,739,898      60,516,300    53,899,426    5,954,946      339,680    304,730    31,189      60,931,822    56,971,921    2,947,977      242,969,012    227,784,517    10,985,597      1,856,512,494    1,654,592,387    178,701,382      765,276,854    697,523,077    56,186,138      7,928,480,062    6,984,194,444    6,01%      1,00    1.05    0.62      0,00    0,477    -3,65      10,62%    8,69%    41,720,155      63,638,560    0    0    41,720,155

## 2006 Functionalization Analysis (cont.)

Functionalization Analysis ('02 vs. '08)	02 ECOS Plant		03-08 Plans		'02-'06 mbined		02 ECOS	fference	Difference
Transmission & Switching Stations	1,603	15.5%	237	7.4%	1,840	13.6%	1,404	· (199)	-12%
Substations & Sub-Transmission	3,804	36.8%	1,100	34.2%	4,804	36.2%	3,741	(63)	-2%
Distribution New Business Burnouts Interferences Immovements/Reinforcements				27		· I·			
Telecom Applications Transformer/Meter Installations		·.	· . ·		7. 1	•.			
Subtotal-Distribution		• •							
Transformers/Network Protectors Meters/Meter Devices				•	· · ·				
Total Distribution	4,937	47.7%	1,879	58.4%	6,815	50.3%	5,199	282	5%
Total Electric T&D	10,344	100.0%	3,215	100.0%	13,559	. 100.0%	10,344	0	24.34.947

See Con Edison Exhibit \_\_\_ (JPR-3), page 1, associated with Mr. John Ricco's testimony, regarding the plant addition figures.

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Exhibit \_\_ (NYPA-4) Page 17 of 18

## 2006 Demand Analysis

	RATE OF RETURN STATEMENT		TOTAL	TOTAL	TOTAL	TOTAL
	<i></i>		SYSIEM	(2)		- 14)
1	TOTAL OPERATING REVENUES		2,621,789,348	2,352,115,464	234,887,519	34,786,366
2						
3	OPERATING EXPENSES		· 2			
Ă	OPERATION & MAINTENANCE		668,049,712	600,865,171	60,317,401	6,867,140
5	DEPRECIATION & AMORTIZATION		331,167,176	288,478,119	38,629,796	4,059,261
6	PROPERTY TAXES		492,538,792	428,039,702	58,083,309	6,415,781
7	PAYROLL & MISC. TAXES		60,516,300	53,964,861	5,889,511	661,928
8	GAIN ON DISPOSAL OF PLANT		339,680	305,134	30,765	3,782
9	STATE INCOME TAX	A 19 1	60,931,822	56,810,457	3,109,440	1,011,924
10	FEDERAL INCOME TAX		242,969,012	227,069,127	11,700,977	4,198,908
11						
12	TOTAL OPERATING EXPENSES		1,856,512,494	1,655,532,570	177,761,199	23,210,724
13						
14	UTILITY OPERATING INCOME	•	765,276,854	696,582,893	57,126,320	11,567,641
15				20.000		1.00.1
16	UTILITY RATE BASE	-	7,928,480,062	6,891,070,339	936,173,241	101,236,482
17					18	
18	RATE OF RETURN (%)		9.65%	10.11%	6.10%	11.43%
19						
20	INDEX		1.00	1.05	0.63	1.18
21					¥	
22	DEVIATION		0.00	0.46	-3.55	1.77
23						
24	TOLERANCE BAND +10%		10.62%			
25	TOLERANCE BAND -10%		8.69%			
26				•	•	4 004 005
27	REVENUE SURPLUS		60,839,261		U C 10 010 011	1,361,965
28	REVENUE DEFICIENCY		47,531,902	U	40,248,313	U
				898288888888	42 207 946	
	Con Edison's Filed Deficiency	and a set of the set of the set of the set	s we are smooth the second	W & C C A Date 5	43,307,010	

Exhibit \_\_ (NYPA-4) Page 18 of 18

## 2006 Demand Analysis (cont.)

		Con Ed	NYPA	EDDS	
Growth from 2002 to YE 3/06	Ξ.	6.4%	4.4%	-17.6%	0
2002 CDS	÷ .				•
Transmission	D03	83.94%	14.22%	1.83%	100.00%
High Tension 60	D04	83.63%	14.67%	1.70%	100.00%
Low Tension	D08-09	89.82%	9.02%	1.16%	100.00%
		•		2	
Expanded for growth		· .			
Transmission	D03	89.29%	14.85%	1.51%	105.64%
High Tension 60.	D04	88.95%	15.32%	1.40%	105.67%
Low Tension	D08-09	95.54%	9.42%	0.96%	105.91%
Re-scaled					
Transmission	D03	84.52%	14.05%	1.43%	100.00%
High Tension 60	D04	84.18%	14.50%	1.32%	100.00%
Low Tension	D08-09	90.21%	8.89%	0.90%	100.00%

Growth rates are based on interrogatory responses NYPA-20, NYPA-119, AND Staff-150.

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Exhibit \_\_ (NYPA-5) Page 1 of 1

### NYPA's ECOS Rate of Return

Rate of Return Comparison		NYPA		AIVDA's	NYPA Deficiency at	
	Con Edison	102 ROR		Proposed ROR	Proposed ROR	Difference
OPERATING REVENUES	]					,
TOTAL OPERATING REVENUES	2,821,789,348	234,687,519	00	Ξ.	234,887,519	
OPERATING EXPENSES	]					
OPERATION & MAINTENANCE DEPRECIATION & AMORTIZATION PROPERTY TAXES PAYROLL & MISC. TAXES. GAIN ON DISPOSAL OF PLANT STATE INCOME TAX FEDERAL INCOME TAX	668,048,712 331,167,178 492,538,792 60,518,300 339,680 60,931,822 242,969,012	-81,001,552 39,040,254 58,739,898 5,854,948 31,169 2,947,977 10,985,597	×		61,001,552 39,040,254 58,739,898 5,854,946 31,169 2,947,977 10,885,587	
TOTAL OPERATING EXPENSES	1,856,512,494	178,701,382		ч. •	178,701,382	
UTILITY OPERATING INCOME	765,276,854	58,188,136	54	-	58,188,136	
UTILITY RATE BASE	7,928,480,082	946,525,947			948,525,947	
RATE OF RETURN (%)	9.65%	5.94%		7.22%	5.94%	
INDEX	100%	61%		·	61%	
DEVIATION	ч.	( <b>3.72</b> )	• • •	jilan s	(3.72)	. •
TOLERANCE BAND +10% TOLERANCE BAND -10%	10.62%			6.50%		

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Exhibit (NYPA-6) Page 1 of 1

## 20% Bandwidth Analysis

Bandwidth Comparison	Total	NYPA Deficiency at	T.	NYPA Deficiency at Edison 20% Band D	A Satur
OPERATING REVENUES					
TOTAL OPERATING REVENUES	2,621,789,348	234,887,519		234,887,519	
OPERATING EXPENSES					
OPERATION & MAINTENANCE DEPRECIATION & AMORTIZATION PROPERTY TAXES PAYROLL & MISC. TAXES GAIN ON DISPOSAL OF PLANT STATE INCOME TAX FEDERAL INCOME TAX TOTAL OPERATING EXPENSES	668,049,712 331,167,178 492,539,792 60,518,300 60,931,822 242,969,012 1,858,512,494	61,001,552 39,040,254 58,739,888 5,954,948 31,169 2,947,977 10,985,587	8 N 11 L	61,001,552 39,040,254 58,739,898 5,954,946 31,169 2,947,877 10,985,587 178,701,382	
	765,278,854	56,186,136		56,188,136	
UTILITY RATE BASE	7,928,480,052	946,525,947		946,525,947	
RATE OF RETURN (%)	9.86%	5.94%		9.66% 5.94%	
INDEX	100%	61%		61%	
DEVIATION		(3.72)		(3.72)	
TOLERANCE BAND TOLERANCE BAND	10.62%			11.58%	
	NAMES OF THE PARTY OF THE	(43,307,816)		(28,112,628)	5,195,188)

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# Proposed Depreciation Study

۰.			Current			Con Ed Proposal - Traditional			NYPA Alternate to Traditional					
	Co. ACCT	·	avg svc		ann depr		avg svc		ann depr		avg svc	_	ann dapr	
PSC ACCT No.	no	Book Cost	life	net slvg	rate	ann depr \$(000)	life	net slvg	rate .	ann dapr \$(000)	life .	net slvg	rate	ann depr \$(000)
		21						1. E						
PRODUCTION PLANT	10		•				2		• . *					
310.00	9,510.00	5 091 561.22	· · · ·						•		· · ·	•		
310.00	9,512.00	2,539,730.01	:			95.02			-	3 305 304 70	·	25.00		3 305 301 79
311.00	9,514.00	106,185,530.03	70.00	-35.00	1.93%	2,047,863.79	65.00	-35.00	2.08%	2,205,391.78	80.00	-35.00	2.00%	2,205,391.70
312.00	9,516.00	230,945,596.74	38.00	-30.00	3.42%	7,900,004.69	35.00	-35,00	3.00%	7 599 917 31	35.00	-35.00	3.00%	0,507,540.24
314.00	9,522.00	72,489,684.78	40.00	-20.00	3.00%	2,1/4,590.54	35.00	-25.00	3.37%	1 110 601 17	35.00	.20.00	3,37%	1 110 601 17
315.00	9,524.00	32,392,534.03	45.00	10.00	2.3070	173 639 24	50.00 60.00	-10.00	2 20%	173 638 24	50.00	-10.00	2 20%	173 639 24
316.UL	9,526.00	1,092,047.37	50.00	-10.00	2.20 %	13 124 901 50	50.00	-10.00	L.200 / 1	14 996 498 74				14,986,488,74
		437,330,200.10				10,124,001.00								
340.00	9 430 00	309 261 38			·									
341.00	9 431.00	5.973.010.95	25.00	-5.00	4.20%	250,866.46	25.00	-10.00	4.40%	262,812.48	25.00	-10.00	4.40%	262,812.48
342.00	9,432.00	1,593,593.81	25.00	-5.00	4.20%	66,930.94	25.00	-10.00	4.40%	70,118.13	25.00	-10.00	4.40%	70,118.13
344.00	9,434.00	11,843,141,96	25.00	-5.00	4.20%	497,411.96	25.00	-10,00	4.40%	521,098.25	25.00	-10.00	4.40%	521,098.25
345.00	9,435.00	1,704,334.19	25.00	-5.00	4,20%	71,582.04	25.00	-10.00	4.40%	74,990.70	25.00	-10.00	4,40%	74,990.70
1 · · · · · · · · · · · · · · · · · · ·		21,422,342.29				666,791,40	1.1			929,019.56				929,019.56
Total Production						14 011 000 00				16 016 600 30				16 016 609 30
Plant	•	4/8,960,628.4/				14,011,092.90				10,000,00	1. S			10,010,010,00
							•							
TOANCHISSION						- C.	1 . ·							
DIANT		· · ·	÷.					·. ·						
350.00	9.530.00	37,590,881,16						2			- 22			
352.00	9,532.00	69,219,239.64	70.00	-20.00	1.71%	1,186,615.54	70.00	-30.00	1.86%	1,285,500.16	70.00	-30.00	1.66%	1,285,500.16
353.00	9,534.00	918,919,862.58	50.00	-20.00	2.40%	22,054,076.70	45.00	-25.00	2.78%	25,525,551.74	45.00	-25.00	2.78%	25,525,551.74
354.00	9,536.00	140,405,562.37	40.00	-40.00	3.50%	4,914,194.68	40.00	-40.00	3.50%	4,914,194.68	L DU		- 2000	
356.00	9,540.00	81,919,307.19	35.00	-35.00	3.86%	3,159,744.71	35.00	-35.00	3.86%	3,159,744.71	S SZISIDU	3500	3.00%	2.457,579.22
357.00	9,544.00	214,690,138.38	55.00	-5.00	1.91%	4,102,448.10	55.00	-5.00	1.91%	4,102,448.10	55.00	-5.00	1.91%	4,102,448.18
357.00	9,545.00	108,375,767.95	55.00	-5.00	1.91%	2,060,991.93	55.00	-5.00	1.9176	2,000,991.93	50.00	-5.00	2 30%	2,000,991,93
358.00	9,546.00_	251 520,902.72	50.00	-5.00	2.1078	5,201,530.50	. 50.00	-15.00	2.30 %	3,704,500,70	50.00	-13.00	2.30 %	3,704,300,70
Jotal Iransmission		1 872 841 661 99	:			42 768 010 61	•••••	- 1. <sup>1</sup> .		46.841.412.08	6 10			- THE VOIE
2.1901		1,00												
DISTRIBUTION							•		100					
PLANT							1.1							
360.00	9,550.00	69,671,270.70							-		·		2.000	
360.00	9,551.00		50.00	0.00	2.00%	0.00	50.00	20.00	2.00%	2 000 044 05	50.00	0.00	2.00%	0.00
361.00	9,552.00	148,332,378.69	50.00	25.00	2.50%	3,/08,309.4/	45.00	-30.00	2.0070	2,000,041.00	46.00	-25 00	2 7896	29 852 535 20
362.00	9,554.00	1 1/4 191 207 30	40.00	-75.00	4 39%	11 100 606 94	40.00	-95.00	4.63%	11 734 927 34	3 5 500	23,00	- 2. 697023	4 347 94 187
364.00	9,000.00	A25 778 A47 17	50.00	-40.00	2,80%	11 921 796 52	50.00	-50.00	3.00%	12,773,353,42	28.300	12:00	ୁ ସମ୍ମିତ୍ୟ	OT TOU
365.00	9 560 00	828 470 097 29	80.00	20.00	1.50%	12,427,051,46	80.00	-25.00	1.56%	12,944,845.27	80.00	-25.00	1.56%	12,944,845.27
366.00	9.561.00	878 264 326.49	80.00	-20.00	1.50%	13,173,964.90	80.00	-25.00	1.56%	13,722,880.10	80.00	-25.00	1.56%	13,722,880.10
367.00	9,562.00	2,588,834,520.50	40.00	-30.00	3.25%	84,137,121.92	40.00	-50.00	3.75%	97,081,294.52	S DO	20 LOO	S0073	States in the second second
368.00	9,565.00	165,521,346.05	35.00	0.00	2.86%	4,729,181.32	35.00	-5.00	3.00%	4,965,640.38	35.00	-5.00	3.00%	4,965,640.38
•		1,361,167,480.33	45.00	0.00	2.22%	30,248,166.23	40.00	-5.00	2.63%	35,730,646.36	40.00	-5.00	2.63%	35 730 645 36
369.00	9,566.00	65,177,256.25	45.00	-140.00	5.33%	4,542,787.00	45.00	-160.00	. 5.78%	4,921,352.58			AR BOALS	San manan
369.00	9,567.00	664,279,696.24	65.00	-115.00	3.31%	21,9/2,328,41	5.00	10.00	3.02%	24 UI6 200.94	2000	010		200 010 100/10
370.00	9,569.00	227,923,902.23	35.00	0.00	2.00%	0,512,111.49	35.00	0.00	2.00%	3 096 744 99		2 mm		
370.00	9,571.00	108,036,070,91	35.00 60.00	0.00	1 67%	5,000,744.00 60,960,10	33.00 60.00	0.00	1 67%	60 959 10		** • mm	ំ ំណ៍ព័ព័	in the second second
3/1.00	9,9/J,UU 0,675,00	3,007,005,99	20.00	,75.00	5 894	1 102 607 65	30.00	-95.00	6.50%	1,228,619,95			100 C	S 1971/0510
373.00	9,575,00	103 061 440 73	60.00	50.00	2.50%	2 575 536 02	50.00	-70.00	2.83%	2,920,074,15	7000	S Same	SKEE3	7512 52070
Total Distribution	5,370.00_	100,001,-10.10	00.00								and the second se			α
Plant		9,005,497,051.14				239,958,707,10			•	265,408,892.54				Personal and
	-				•									
Total Electric Plant														the straight of the
in Service	_	\$11,307,299,341.60				\$296,738,410.61				\$328,165,812.92				13.65,796,104.68
	-			•										
Deta Sources:														
Spreadsheet Columns	Con Edison	Exhibit _(CH-3,												
AK:	Schedule 1)													
	•									10				

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Exhibit \_\_ (NYPA-7) Page 2 of 2

### Proposed Depreciation Study (cont.)

58. Mr. Hutcheson states that, "Because increased depreciation expenses means a lower rate base, rates will be lower as a result." (page 27) Please explain how he came to this conclusion and provide an example supporting this statement.

#### Response:

The attached spreadsheet named "PSC-SET1-Q58.PDF" provides a simple example of the principle. A 10% return is assumed and the revenue requirement is grossed up for federal income taxes.

Since net plant will be lower for each year where higher depreciation is collected, the amount that customers pay for return on investment is lower each year. Depending upon how much is collected as additional depreciation, the absolute dollars in the earlier years will probably be higher since the additional depreciation expense will outweigh the reduction in rate base effect.

However, in total dollars over the 10-year life in the example, customers will pay less. The same amount is collected for depreciation either way, but the return on investment is less because depreciation was recovered over a shorter period.

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## **Property Tax Rates**

NYC Fiscal Year	Class 3	∆ рге∨ уг	Class 4	∆ рге∨ уг
03-04	12.418%	decr	11.431%	decr
02-03 (3rd and 4th Qtrs)	12.565%	} incr	11.580%	incr
02-03 (1st and 2nd Qtrs)	10.607%	5	9.776%	flat
01-02	10.541%	flat	9.712%	flat
00-01	10.540%	incr	9.768%	decr
99-00	9.398%	incr	9.989%	decr
98-99	8.800%	incr	10.236%	incr
97-98	8.282%	incr	10.164%	decr
96-97	7.840%	decr	10.252%	decr
95-96	7.922%	incr	10.402%	decr
94-95	7.702%	incr	10.608%	decr
93-94	7.404%	decr	10.724%	incr
92-93	12.794%	decr	10.698%	incr
91-92	13.083%	decr	10.631%	incr
90-91	15.200%	incr	10.004%	incr
89-90	12.903%	incr	9.539%	decr
88-89	11.289%	incr	9.582%	incr
87-88	9.942%	incr	9.460%	flat
86-87	9.172%	incr	9.460%	flat
85-86	9.051%	flat	9.460%	flat
84-85	9.051%	decr	9.460%	incr
83-84	9:237%	incr	9.323%	flat
82-83	9.109%	incr	9.294%	incr
81-82	8.950%		8.950%	

Source: The City of New York, Department of Finance web site

• • Case No. 04-E-0572

Exhibit \_\_ (NYPA-8) Page 2 of 2

# Property Tax Rates (cont.)

Electric Property Tax		\$649,632					
Con Edison estimate	of Class %'s:						
	Class 3:			88.55%			
	Class 4:			11.45%			
Con Edison NYC Pro	perty Tax Estimate:						
	Class 3	TxYr 04/05		13.2870%			
	Class 3	TxYr 05/0E		14.2170%			
	Wtd Class 3 for rate vr:						
	(3 mos 04/05, 9 mos 05,	/06:		13.9845%			
	(0	15.					
	Class 4	TxYr04/05		11.7170%			
	Class 4	TxYr 05/0E		12.0100%			
	Wtd Class 4 for rate vr:						
	(3 mos 04/05 9 mos 05	/06:		11.9368%			
NYPA Assumed Clas	s 3 Rate (Actual 03/04):			12.4180%			
NYPA Assumed Clas			11.4310%				
Revised Property Tax	in NYCfor rate yr 06	Class 3		510808			
	,	Class 4		71220			
	Total	•		582028			
	Decreased Revenue Rec	uirement:		\$67,604			

## Cash Working Capital

			(Millions of	Dollars)		
						5-qtr
	Dec-02	Mar-03	Jun-03	Sep-03	Dec-03	average
Uses of Working Capital:						
Elements of Working Capital other						
than Prepayments and Materials						
and Supplies:						
Accounts Receivable - Customer	\$602	\$761	\$632	\$745	\$692	\$686
Accounts Receivable - Other	84	101	101	296	105	137
Cash and Temp Cash Investment	88	34	47	32	33	47
Other Current Assets	55	51	60	53	58	55
	\$829	\$947	\$840	\$1,126	\$888	\$926
Materials and Supplies	\$68	\$68	\$68	\$68	\$68	\$68
Prepayments	161	161	161	161	161	161
Total Working Capital Uses	\$1,058	\$1,176	\$1,069	\$1,355	\$1,117	\$1,155
Sources of Working Capital:						
Accounts Pavable	\$743	\$828	\$721	\$712	\$713	\$743
Taxes Accrued	93	4	95	152	95	88
Interest Accrued	80	92	88	89	88	87
Wages Accrued	76	75	76	79	76	76
Other Current Liabilities	157	162	158	154	150	156
Total Sources of Working Capital	\$1,149	\$1,161	\$1,138	<b>\$1</b> ,186	\$1,122	\$1,151
						~
Net Working Capital Requirement	-\$91	\$15	-\$69	\$169	-\$5	\$4

Data Sources:

Materials and Supplies and Prepayments: All Other Con Edison Exhibit \_\_(RM-1) Con Edison 10-Q's, 3/31,03, 6/30/03, 9/30/03 Con Edison 10-K, 12/31/03