



New York Power Authority

Preliminary Staff Report

2005 Rate Modification Plan for the

Southeast New York Government Customers

Appendix A

Including:

Exhibit "A" – 2005 Embedded Cost-of-Service Study

Exhibit "B" – Current and Proposed 2005 Production Rates

Exhibit "C" – Estimated Customer Impacts

Exhibit "D" – Key Changes and Major Drivers

Supporting Work Papers

September 27, 2004



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New York Power Authority
Preliminary Staff Report
2005 Rate Modification Plan for the
Southeast New York Government Customers

I. Executive Summary

The staff of the New York Power Authority (NYPA) has completed a review of the projected costs and revenues associated with the Government customers for 2005. The Government customer revenues at current rates are insufficient and will fall approximately \$149.3 million short of full recovery of the projected costs for 2005. Further, this review indicates that the anticipated supply mix, contractual and market-related changes which will cause this shortfall are expected to continue in 2006 and beyond. Therefore, NYPA staff proposes that the current production rates charged to the Government customers be increased to recover the projected 2005 shortfall. The increase in production charges required to recover this overall shortfall would be 27.8%, representing an 18.9% increase over current total billed charges. The proposed new rates would go into effect with the January 2005 billing cycle. This would allow NYPA to recover approximately \$133 million of incremental production revenues from New York City Government customers in 2005 (excluding amounts recovered under the Westchester agreements).

The key changes and major cost drivers (see Exhibit "D") that will increase the total cost of serving the Government customers in 2005 include:

- the cost of replacing the expiring Entergy Indian Point 3 supply contract,
- the rising cost of New York Independent System Operator (NYISO) energy from upstate sources,
- the anticipated costs of risk management and control, and
- the rising cost of NYISO charges assessed at the customer load bus.

Replacing Indian Point 3 - The primary reason for the increase to New York City Government customers is the estimated \$75 million cost of replacing the largest single source of energy

supply in 2004 with different resources in 2005. The expiring contract that NYPA has with Entergy for Indian Point 3 supply was entered into as part of the sale of the plant in November 2000. This new supply is associated with two contracts with private-sector generators and NYPA's new 500MW Combined Cycle Unit. The new sources reflect more current market prices. Yet, despite their higher cost, these new resources offer savings of almost \$90 million in 2005 when compared to the alternative cost of spot market electricity purchases.

Purchased Power Costs – The second reason for the increase to New York City Government customers relates to overall increases in the price of upstate energy purchases. These higher prices are partially offset by the increasing value of other plants dedicated to the Government customer class. The net effect is about \$20 million in additional costs.

Risk Management & Control – The third major component of the increase to New York City Government customers is the risk premium, which is necessary because under the current customer Supplemental Agreements with NYPA the Energy Charge Adjustment is frozen. Because it cannot adjust the rates monthly to account for changes in its variable costs, NYPA expects to incur about \$26 million to stabilize the rates charged to New York City Government customers.

NYISO Charges – The fourth and final major component of the increase to New York City Government customers is related to increasing costs in the marketplace which are connected with bulk power transmission under the control of the NYISO. These increased costs represent about \$13 million.

Rate Plan - As outlined in Supplemental Agreements signed by most Governmental customers in 1995 and 1996, NYPA may increase the revenues from the Government customers by increasing the baseline demand and energy rates. Under the Supplemental Agreements, the Energy Charge Adjustment ("ECA") is frozen and thus is not available as a means of passing through variable fuel and purchased power costs. So, NYPA's staff has recommended that the increase be applied across-the-board to all baseline demand and energy rates. See Exhibit "B"

for the current and proposed rates by service class. See Exhibit “C” for estimated customer impacts.

In 2003, the Power Authority saved its Government customers in New York City an average of 46% over Con Edison’s rates. The Government customers will continue to benefit from highly competitive pricing under the proposed rate structure, with savings of over 30% over Con Edison’s current rates.

Notification and Review Process – The Trustees will be requested to approve notice of the proposed action at their September 27, 2004 meeting. The required notice of this proposed rate action and notice of a public forum on this rate action will both be published in the State Register on Wednesday, October 13, 2004. A public forum regarding the proposed increase will be held on Tuesday, November 16, 2004 to receive input from all interested parties. Following a full evaluation of the comments received, the Staff proposes to recommend a final rate action at the December 14, 2004 Trustee’s meeting. If approved by the Trustees, these rates would be effective with the January 2005 billing cycle and remain in effect until changed by a subsequent action of the Trustees.

II. Discussion

A. Customers Served at Government Rates

The Government customer class is comprised of certain qualifying electric customers located in the franchise area of the Consolidated Edison Company of New York, Inc. (Con Edison). Qualifying customers include state and local Government entities, including cities, towns and villages, state and local Government agencies, various school, fire and ambulance districts, and Government corporations. The following abbreviated list is illustrative:

- The City of New York
- Metropolitan Transportation Authority
- New York City Housing Authority
- The Port Authority of New York & New Jersey
- New York State Office of General Services
- The Jacob K. Javits Convention Center
- Battery Park City Authority
- Westchester County and local Governments

B. Recent History

NYPA production rates charged to the Southeastern New York Government customers remained essentially unchanged from February 1990 through March 2004. During much of that extended period NYPA and its customers enjoyed the benefits of a firm supply portfolio and stable prices. However, toward the end of that extended period the impacts of volatile and rising fuel and energy market prices began to take their toll on NYPA's ability to continue charging those 14-year-old rates.

First in 2002 and then again in 2003, NYPA incurred escalating purchased power and fuel costs that exceeded the revenues available from sales to the Government class by a widening margin. The shortfall was \$21.8 million in 2002, and in 2003 it grew to \$56.2 million. During the spring of 2003 both fuel and energy prices soared just as Indian Point 3 - a major source of lower cost energy for the Government customers - entered a refueling and maintenance outage.

The projected 2004 shortfall was expected to mitigate somewhat to \$32.3 million (before application of the 2004 increase) since 2004 is a non-refueling outage year at Indian Point 3, and because fuel and energy prices were expected to recede from 2003 levels. Unfortunately, these lower price expectations have not materialized. In fact, quite the opposite has occurred as fuel and energy prices have once again increased, driven by tight fossil fuel supplies, a rebounding world economy and geo-political factors.

Ultimately, the continuing rise in purchased power and fuel costs, the cumulative effects of inflation since 1990, the addition of new charges assessed by the New York Independent System Operator (NYISO), and the aforementioned sustained and growing deficits forced NYPA to seek rate relief in 2004 for the first time in 14 years.

The current estimate of the year-end 2004 shortfall is over \$30 million, even after incorporating the positive impact of the 2004 rate increase on actual revenues and including actual expenses incurred through August.

The 2004 rate increase was largely associated with increases in the cost of maintaining the then existing supply portfolio. It was known when the 2004 rate increase was sought that it did not cover further cost increases expected in 2005 associated with anticipated shifts in the supply portfolio. Mindful of this fact, staff notified the Government customers of the likelihood that NYPA would incur substantial additional costs in 2005 and beyond.

C. Government Portfolio Management

1. Supply Portfolio Changes

The key changes in the capacity and energy supply portfolios used to provide electric power to the Southeastern New York Government customer class include the new supply arrangements flowing from Request-for-Proposal #2 (RFP#2), start-up of NYPA's new 500MW Combined Cycle Unit, and the use of market-priced supply to meet a significant portion of the Government customers' overall energy and capacity requirements.

2. Purchased Power Changes

NYPA has incurred increased costs for purchased power in recent years that have had a significant impact on the Government customers' cost-of-service. The NYISO Locational Based Marginal Pricing ("LBMP") market energy prices are highly correlated with the cost of natural gas as the incremental fuel in many hours. Therefore, higher natural gas prices have caused higher prevailing LBMP prices across the State. Although it is hoped that natural gas and energy prices will soften from their highs in 2003 and 2004, a return to lower historic levels is not expected. This expectation becomes more important as the supply mix used to serve the Government customers increasingly shifts to purchased power as a major component of the overall supply mix and to natural gas as the primary fuel.

3. How Customers are Served

Consistent with the Public Authorities Law, NYPA has a contractual obligation to supply electricity to the Government class. That is, NYPA has the responsibility to supply sufficient power and related services to meet their NYISO-determined requirements. As the Government customers' load serving entity (LSE), NYPA supplies the Government customers' needs using a portfolio of owned and purchased resources.

a) Dedicated Owned Resources

Dedicated owned generating resources located within New York City include:

- the 875MW Charles Poletti Power Project, and
- the new 500MW Combined Cycle Unit at Poletti (scheduled to start-up in 2005).

Dedicated owned Upstate resources include:

- up to 42 MWs of capacity and the associated energy from the Small Hydroelectric Projects (Ashokan, Kensico, Crescent, Jarvis, and Vischer Ferry), and
- a block of capacity supplied from the Blenheim-Gilboa pumped generating units.

b) Purchased Resources

To the extent that sufficient capacity and energy are not available from dedicated owned resources, NYPA from time to time purchases supply on behalf of the Government customers from other NYPA-owned resources, third parties and the NYISO markets.

Purchased resources include the following:

- 1,000MWs from the Indian Point 3 nuclear power plant through the end of 2004, and then 250MWs each of energy-only supply from Indian Point 2 and 3 in 2005 through 2008 under a separate agreement resulting from RFP #2,
- 600MWs of energy transmitted from upstate NYISO markets to New York City along a NYISO grandfathered transmission path,
- Market-priced In-City capacity purchases from NYPA's Small Clean Power Plants, but only until start-up of the 500MW Combined Cycle Unit,
- Other NYISO market-priced capacity and energy, and
- Contracts-for-differences (CFD's) from RFP #2 and other solicitations used to hedge NYISO day-ahead market energy purchases.

4. Portfolio Update

NYPA uses owned and purchased capacity and energy to meet the projected requirements of the Government customers.

a) NYISO Capacity Requirements

As the LSE for the Government customers, NYPA is required to follow the rules established under the NYISO's Open Access Transmission Tariff ("OATT") and Market Administration and Control Area Services Tariff to buy and sell power in the NYISO's energy and capacity markets. This includes the provision of locational capacity and energy.

In-City Capacity Obligation - Capacity from Poletti, the new 500MW Combined Cycle Unit and market-priced In-City capacity purchases will be used to meet the In-City capacity requirements associated with the Government customers.

New York Control Area Obligation - Purchases from the Blenheim-Gilboa pumped generators, the Small Hydroelectric Projects, and market-priced purchases of rest-of-state (ROS) capacity will be used to meet the balance of the NYISO-established New York Control Area (NYCA) load and reserve obligations associated with the Government customers.

b) RFP#2 Supply

The primary reason for the increase to New York City Government customers, representing about \$75 million, relates to the cost of replacing the largest single source of energy supply in 2004 with different resources in 2005. See Exhibit "D." The expiring contract that NYPA has with Entergy for Indian Point 3 supply was entered into as part of the sale of the plant in November 2000. This new supply is associated with two contracts with private-sector generators and NYPA's new 500MW Combined Cycle Unit. The new sources reflect more current market prices. Yet, despite their higher cost, these new resources offer savings of almost \$90 million in 2005 when compared to the alternative cost of spot market electricity purchases.

The current Entergy Indian Point 3 supply contract for approximately 1,000 MWs of the plant's total output, which includes all capacity, energy and ancillary services, expires on December 31, 2004. NYPA solicited bids for replacement resources beginning on January 1, 2005 under RFP #2. Two supply resources were selected by NYPA - one physical and one financial.

Physical Supply Agreement – The first part of the replacement supply acquired under RFP #2 is 500 MWs of unit-contingent, physical bilateral, energy-only supply. The counterparty will supply energy on an "as available" basis from specified generators, subject to certain minimum performance guarantees. No capacity or ancillary services are included with this supply. However, diversifying the energy supply to more than one resource will limit NYPA's

exposure to periodic outage-related replacement purchased power costs. In the past these purchased power cost increases were in large part associated with the biannual (i.e., every two year) refueling outage cycles of the Indian Point 3 nuclear plant. Greater diversification is achieved by reducing the contribution of each supply resource to the overall supply portfolio.

Hedged Energy Supply - The second part of the RFP #2 energy supply is financial using a standard hedging instrument known as a contract-for-differences (CFD). Under a CFD the counterparty offers a fixed “strike” price against a floating market price. In this instance the counterparty offered to guarantee certain specified energy purchases starting January 1, 2005. NYPA will, for example, buy energy in NYISO Zone “A” to wheel to its New York City Government customers. This energy will be transmitted down the grandfathered transmission path from upstate to an East Fishkill, NY substation interconnection with the Con Edison system for ultimate delivery into New York City. NYPA will use this CFD to hedge or fix the price of a portion of the Zone “A” energy purchases. The CFD, entered into as part of RFP#2 procurement effort, is currently projected to be “in-the-money” for 2005, saving the Government customers about \$8.6 million on Zone “A” purchased energy expenses.

RFP #2 Energy Cost and Volumes - The average energy supply cost is more expensive than the \$36 per MWH paid for the total output of Indian Point 3 in 2004. The volumes of energy purchased and hedged under RFP #2 are approximately 60% of the volume purchased under the prior Entergy contract.

c) 500MW Combined Cycle Unit

As part of its long term commitment to New York City, the Government customers and the State of New York, and as a partial replacement of the expiring Entergy Indian Point 3 supply, NYPA is completing a new 500MW Combined Cycle Unit at the Poletti generating site. This new low-emission, high-efficiency, natural gas-fired generating facility is scheduled to start commercial operation on or after May 1, 2005. It is made up of two very high efficiency combustion turbines mated to a residual heat removal steam generator and conventional steam turbine unit. The combined efficiency of these units will allow NYPA to burn natural gas at a heat rate of approximately 7,000 British Thermal Units (Btu’s) per kWh. The new plant will be

the most efficient electric generating plant in the City. In-City capacity and energy from this new facility will in part substitute for current market-priced In-City capacity purchases and the reduced energy supply from the Entergy Indian Point 2 and 3 plants (see above). Overall, given rising natural gas prices and NYPA's new debt service obligations, there will be increased costs associated with the new unit compared to the replaced Indian Point 3 supply. However, this resource will still be less expensive than alternative spot market purchases.

d) NYISO Energy

The second reason for the increase to New York City Government customers relates to overall increases in the price of upstate energy purchases. These higher prices are partially offset by the increasing value of other plants dedicated to the Government customer class. The net effect is about \$20 million in additional costs for New York City Government customer sales. See Exhibit "D."

Some 158,663 MWHs of net generation are expected from the Small Hydroelectric projects Ashokan and Kensico (on NYC reservoirs) and the Crescent, Jarvis and Vischer Ferry (located upstate). The remaining energy requirements of the Government customers will be purchased by NYPA in the NYISO's LBMP markets. Of these LBMP market energy purchases, the bulk for 2005 will be made in the NYISO Zone "A" and "G" day-ahead markets ("DAM"). In addition, some real-time market balancing energy may be purchased to make up for NYISO re-dispatch or performance and dispatch differences at the generators and load busses. However, these over- and under- supply amounts are assumed to balance for our purposes here.

NYPA expects to make LBMP market energy purchases for 2005 as follows:

- NYISO Zone "A" purchases (approximately 4 million MWHs); and
- NYISO Zone "G" purchases (approximately 2.1 million MWHs).

These NYISO energy purchases are in part hedged by NYPA's generator supply portfolio which will produce some countervailing revenues from energy sales into the NYISO. However, NYPA remains a net buyer and the price of this purchased energy is expected to rise in 2005, so this represents a net cost driver.

e) Risk Management and Control

The third major component of the increase to New York City Government customers is the risk premium, which is necessary because under the current customer Supplemental Agreements with NYPA the Energy Charge Adjustment is frozen. Because it cannot adjust the rates monthly to account for changes in its variable costs, NYPA expects to incur about \$26 million to stabilize the rates for New York City Government customer sales. See Exhibit "D."

f) NYISO Charges

The fourth and final major component of the increase to New York City Government customers is related to increasing costs in the marketplace which are connected with bulk power transmission under the control of the NYISO. These increased costs represent about \$13 million on New York City customer sales. See Exhibit "D."

The largest increase within this category of expenses relates to congestion-related charges assessed by the NYISO to the customer load busses. At the expected level of LBMP prices in 2005, net transmission charges relating primarily to higher marginal loss charges assessed to the load busses are expected to rise by \$13.8 million in 2005 on all sales.

g) Blenheim-Gilboa Capacity

In 2005 the Government customers are assigned the full cost rate for Blenheim-Gilboa capacity, but will also receive their share of the plant's NYISO net revenue credits.

h) NYISO & Third-Party Sales

From time to time NYPA may have capacity and energy resources which are temporarily excess to the overall requirements of Government customers that may be sold into the market. The revenues from such sales of dedicated capacity and energy are credited to the Government customers' cost-of-service.

D. 2005 Embedded Cost-of-Service

The factors contributing to the need for additional rate relief in 2005 and listed on Work Paper RR05vs04 may be divided into several broad categories: variable costs, fixed costs, cost reductions and revenues.

1. Variable Costs

The variable cost of serving the Government customers is affected by changes in both the supply and pricing of purchased power and changes in fuel prices.

a) Fuel Supply & Prices

The start-up of the 500MW Combined Cycle Unit (and the reduction in lower cost nuclear supplies) has shifted NYPA's generation fuel mix toward natural gas as the primary fuel. So, NYPA's total fuel expense is increasingly subject to volatility in the cost of this fuel. The 2004 pro forma cost-of-service projected Poletti natural gas-fueled generation of 1.5 million MWHs at an average cost of \$5.79 per MMBtu. The 2005 pro forma cost-of-service anticipates natural gas burn at Poletti and the new 500MW Combined Cycle Unit of 3.9 million MWHs at an average cost of \$6.22 per MMBtu.

Additionally, as part of the agreement with New York City and others regarding construction of the new 500 MW Combined Cycle Unit at the Poletti site, NYPA is burning more natural gas and less fuel oil. Clean-burning natural gas meets the City's environmental goals, but is generally more costly than fuel oil. This environmental initiative is projected to increase the cost of serving the Government customers in 2005 and beyond.

As a result of the aforementioned changes the total fuel expense is expected to rise from \$126.9 million in 2004 to \$284.2 million in 2005, an increase of \$157.3 million.

However, as natural gas prices rise they also drive up energy prices in New York City, where NYPA sells the energy generated by Poletti and the new 500MW Combined Cycle Unit. So, it is expected that the impact of natural gas price increases will be more than offset by the

efficiency improvements to be achieved with the start-up of the 500MW Combined Cycle Unit and parallel increases in the energy revenues derived from sales out of these units.

b) Energy Supply & Prices

In recent years NYPA purchased approximately 4 million MWHs of upstate NYISO Zone “A” energy annually to serve the Government customers in New York City. The average price of those purchases is expected to rise from about \$40 per MWH in 2004 to about \$50 per MWH in 2005, a 27% year-to-year increase representing approximately \$39 million of increased purchased power costs. This is partially offset by the “in-the-money” credits flowing from CFD hedges valued at \$9.0 million for 2005 and from rising Poletti energy revenues. Projected upstate NYISO Zone “G” energy purchases - used to serve Government customers in both Westchester and New York City - will equal approximately 2.1 million MWHs at an average price of about \$57 per MWH in 2005. This represents an increase relative to the \$36 per MWH power cost of Indian Point 3 in 2004. This increase will be partially offset by net energy sales revenues at Poletti and the new 500MW Combined Cycle Unit.

c) Risk Management and Control

The third major component of the increase is the risk premium, which is necessary because under the current customer Supplemental Agreements with NYPA the Energy Charge Adjustment is frozen. Because it cannot adjust the rates monthly to account for changes in its variable costs, NYPA expects to incur about \$26 million to stabilize the New York City Government customers’ rates.

As an acknowledgement of the volatility of purchased power and fuel markets and the many other risks incurred, NYPA is specifically recognizing the *cost* of risk relating to the provision of electric service to the Government customers. These risk-related costs have always existed. However, now they are specifically named here and quantified in the cost-of-service.

Upstream Risk Management - Risks, and the costs associated therewith, may be shifted “upstream,” through various means to suppliers and other counter-parties. Techniques include CFDs or fixed-price supply contracts. The cost of risk shifting to the supplier is incorporated into the price charged for the supply. NYPA has entered into both CFD and fixed-priced risk

management arrangements on behalf of the Government customers and those expenses are included in the cost-of-service.

Downstream Risk Management - Risks may be flowed “downstream” to the customers using, for example, fuel or energy charge adjustments, or by specifically including the known costs of hedging (e.g., a fuel hedge) in the cost-of-service and rates to be paid by the customers. However, the pre-existing Supplemental Agreements with the Government customers preclude the use of the aforementioned Energy Charge Adjustment (or ECA) in 2005 for the purpose of passing changes in net variable costs on to the customers. Therefore, NYPA can recover risk-related costs only through an increase in the baseline demand and energy rates.

Self-Hedging Risk Management - Some risks may be managed by the design of the supply portfolio. For example, some energy purchases (i) from NYISO Zone “A” delivered to loads in New York City, and (ii) from NYISO Zone “G” delivered to both Westchester and New York City load busses are in part hedged in this fashion. These self-hedging arrangements are formed in two parts. For example, congestion charges assessed along the path from Zone “A” to the New York City load bus are hedged first by NYPA’s grandfathered Transmission Congestion Contract (“TCC”) rents and reimbursements. The NYISO Zone “A” energy purchases are also hedged in part by a CFD and countervailing NYISO Zone “J” sales from the Poletti plant into the NYISO’s day-ahead market. The NYISO Zone “A” energy purchase cost, the net TCC costs, any CFD settlement amounts and any net revenue credits from Poletti sales are all accounted for in the 2005 pro forma cost-of-service and baseline rates.

Risk Absorption - However, there are also substantial unhedged and unhedgeable risks, and the related costs, incurred by NYPA when it engages in risk management and control. To the extent that NYPA, as the Government customers’ load serving entity or LSE, is forced to absorb the remaining unhedged and unhedgeable risks, this represents an “open” risk position for NYPA. There are potential costs associated with such open positions which can be statistically estimated.

Types of Risk - Broadly speaking NYPA is exposed to two kinds of risk in connection with its Governmental customers' cost-of-service: quantity and price risks. Quantity risks relate to both supply and loads. Supply quantity risks, for example, may be commercial risks such as third-party supplier bankruptcy or other credit events that risk impacting supplier contract integrity, or performance risks, such as a third-party supplier's unit outage. Load quantity risks, for example, may be influenced by weather-related factors or changes to the structure of the NYISO markets, tariffs and charges. Price risks include, but are not limited to, fuel price volatility risk, the impact of air quality restrictions, LBMP market price volatility risks, and the risks associated with NYISO charges such as net congestion and marginal loss charges, locational reliability rule (LRR) charges, local and Statewide uplifts, ancillary service charges, and demand curve assessments, just to name a few. These risks are either overly expensive to hedge, can only be approximately hedged, or may even be entirely unhedgeable. NYPA has statistically estimated the cost of these unhedged and unhedgeable, absorbed risks in Work Paper **RMR05**.

The risks outlined herein are not meant to be all inclusive. However, they are a representative sampling, and to the extent possible must be quantified and included in the cost-of-service study in order to properly account for NYPA's cost of serving the Government customers in today's volatile markets.

2. Fixed Costs

Fixed costs represent the remaining costs, other than variable purchased power, NYISO and fuel costs.

a) Capital Costs

Start-up of the newly constructed 500MW Combined Cycle Unit carries with it the associated debt service. This project is 100% debt funded in order to maximize the benefits available from the use of tax-exempt debt funding for the Government customers. The debt service associated with this new facility will be approximately \$41.9 million in 2005, including both fixed and variable debt obligation principle and interest. However, it is expected that the new facility's NYISO energy sales revenues and in-city capacity purchases that will be displaced by it will

more than offset this cost increase. For 2005 this is estimated to result in net savings of about \$9 million and is expected to be greater in subsequent years.

b) Operation & Maintenance Costs

Start-up of the newly constructed 500MW Combined Cycle Unit also carries with it the associated costs of plant operation and maintenance (O&M). O&M expenses during 2005 for the period starting May 1 and running through year-end are projected to total approximately \$13.0 million. However, it is expected that NYISO energy sales revenues and in-city capacity purchases displaced by the unit will more than offset this cost increase, because the new 500MW Combined Cycle Unit is more economical than alternative spot market purchases.

As part of the 2004 increase, NYPA agreed to defer the O&M costs of the 2004 Poletti maintenance outage over the three year period 2004 through 2006. This represents an additional \$1.8 million in O&M for 2005. However, it is expected that higher NYISO energy sales revenues will more than offset these cost increases.

c) Other Costs

Other components of the cost-of-service do not contribute materially or only contribute a small amount to the year-to-year increase seen from 2004 to 2005.

3. Total Revenues

Total Revenues are composed of retail revenues received from the Government customers in Westchester and New York City and wholesale revenues received from the NYISO markets and others.

a) Customer Revenues

Government customer standard tariff offering revenues are projected to increase by approximately \$36.9 million in 2005. This includes the impacts of load growth and a full year of the 2004 rate increase, partially offset by an expected \$5 million reduction in stabilized ECA expense and corresponding revenues.⁻¹ (Standard tariff offering revenues may also be

¹ The Stabilized ECA is somewhat of a misnomer because NYPA can recover two types of expenses from the Government customers under this provision: (1) charges associated with demand-side management investment amortization and (2) U.S. Department of Energy enrichment plant decontamination and decommissioning

affected by specific long term contract terms and conditions limiting the amount of any such increases.)

b) NYISO and Other Sales

Start-up of the new 500 MW Combined Cycle Unit will increase total energy sales to the NYISO by NYPA on behalf of the Government customers in New York City. The output of this facility will be dispatched by the NYISO. Sales into the day-ahead and real-time markets will be credited to the Government customer cost-of-service. The In-City capacity of this facility will be retained to meet the needs of the In-City Government customers. Ancillary services produced by this facility are also to be sold into their respective NYISO markets. Any revenues from the sale of ancillary services will also be credited to the Government customer cost-of-service. Sales of energy and capacity into NYISO markets are expected to rise from \$288.4 million in 2004 to \$366.1 million in 2005, offsetting a portion of the increase in other costs. Sales of ancillary services and other revenues are expected to decrease slightly from \$4.4 million in 2004 to \$3.2 million in 2005.

4. Cost Reductions and Revenue Increases

NYPA has also been able to achieve some cost reductions and revenue enhancements to offset a portion of the cost increases cited above.

a) Expense Reductions

The start-up of the 500MW Combined Cycle Unit will allow NYPA to eliminate all In-City capacity purchases thus reducing In-City purchased capacity expense by \$26.7 million annually.

b) Revenue Increases

Higher sales volumes into the New York City NYISO Zone "J" energy market increases those revenues more than offsetting higher fuel expenses at Poletti and the new 500MW Combined Cycle Unit. Poletti NYISO energy sales are expected to increase by \$43.2 million in 2005

expenses assessed on NYPA and associated with the period of time when it owned the Indian Point 3 nuclear power plant.

relative to 2004, a Poletti maintenance outage year. New energy sales from the 500MW Combined Cycle Unit are expected to total \$130.7 million in 2005.

5. Total Shortfall

However, these revenue increases and expense reductions are insufficient to offset all the cost increases identified elsewhere. NYPA staff projects that the overall Government customer and NYISO revenues will fall short of the expenses incurred in 2005 by about \$149.3 million. Of this amount, approximately \$133 million is related to New York City Government customers.

III. Rate History & Plan

A. Rate History

The majority of the Governmental customers signed Supplemental Power Service Agreements with NYPA in 1995 and 1996 (“Supplemental Agreements”). These Supplemental Agreements contain, among other things, commitments from the customers that they will remain full-requirements electricity customers of NYPA for certain fixed terms, in return for which NYPA has agreed to constrain its ability to raise prices.

However, the standard form of the Supplemental Agreements permits rate increases beginning January 1, 2002, if justified by a cost-of-service analysis. Article 1, Rates, paragraph (b) of the New York City Supplemental Agreement states:

“Beginning in January 1, 2002, any increase in the baseline demand and energy charges must be based on the Authority’s demonstration that the normalized pro forma cost-of-service for the Southeast New York (“SENY”) public customers exceeds the normalized pro forma revenues expected from the rate levels in effect.”

The Supplemental Agreements also suspended the ECA provision through which NYPA had previously recovered changes in its net variable costs from the customers. Article 1, Rates, paragraph (c) of the New York City Supplemental Agreement states:

“During the term of this Agreement, the monthly energy charge adjustment (ECA) shall remain at zero ...”

Given this ECA “freeze,” NYPA may only recover the added cost of serving Government customer loads through an increase in the baseline demand and energy rates.

B. 2004 Rate Increase

The 2004 rate increase went into effect in April 2004. During the discussions and public outreach concerning that rate increase, staff notified the Government customers of the likelihood that NYPA would incur added costs for 2005 and beyond. The amount of the 2004 rate increase was \$32.3 million on an annualized basis representing a 6.5% increase in the production component of the bill, or about a 4.3% increase in the overall billed amounts, including delivery service.

C. 2005 Rate Plan

Consistent with the Supplemental Agreements and NYPA's past ratemaking practices, the proposed 2005 increase is based on a pro-forma cost-of-service.

1. 2005 Pro-forma Cost-of-Service

See Exhibit "A" of this Rate Modification Proposal for Government Customers and refer to Work Paper **RR05**. These compilations indicate a current overall revenue deficiency of \$149.3 million, equaling 27.8% of the Government customer production revenues, or 18.9% on their overall bill.

2. 2005 Proposed Production Rates

If ultimately approved by the Trustees, the proposed rates would go into effect with the January 2005 billing cycle. Staff has recommended that the increase be applied across-the-board to all baseline demand and energy rates. See Exhibit "B" for the current and proposed rates by service class. These increased baseline demand and energy rates would remain in effect until changed by a subsequent action of the Trustees.

3. Estimated Customer Impacts and Competitive Comparison

Estimated customer impacts are included in Exhibit "C" attached hereto.

In 2003, the Power Authority saved its Government customers in New York City an average of 46% over Con Edison's rates. The Government customers will continue to benefit from highly

competitive pricing under the proposed rate structure, with savings of over 30% over Con Edison's current rates.

4. Notification and Review Process

The Trustees will be requested to approve notice of the proposed action at their September 27, 2004 meeting. The required notice of this proposed rate action and notice of a public forum on this rate action will both be published in the State Register on Wednesday, October 13, 2004. A public forum regarding the proposed increase will be held on Tuesday, November 16, 2004 to receive input from all interested parties. Following a full evaluation of the comments received, the Staff proposes to recommend a final rate action at the December 14, 2004 Trustee's meeting. If approved by the Trustees, these rates would be effective with the January 2005 billing cycle and remain in effect until changed by a subsequent action of the Trustees.

D. Pro-Forma Cost-of-Service Methodology

This rate proposal addresses projected costs for the year 2005. The 2005 cost-of-service study is generally consistent with 1990 and the 2004 cost-of-service studies used to set the current rates. This methodology sums the various fixed and variable costs of serving the Government customers' power needs, applies appropriate credits, and calculates a pro forma production cost-of-service for the Government class. The following list describes generally the individual lines contained in the cost-of-service referenced in Work Paper **RR05** and elsewhere.

- **Operation & Maintenance (O&M)** expense (Line #1) is first determined on a project-by-project basis from the site budgets. The proposed budgets are compiled from site budget data. The site O&M budget classes include site payroll & benefits, site direct purchases, stores issues, site fees & dues, site office & station expense, site contracted services, site consultants, site other expenses, site assessments and site research & development expenditures. (O&M does not include any indirect overheads referred to here as Shared Services. These are listed on a separate line in the cost-of-service. See Shared Services.) The site budget class amounts are then summed across projects to produce the cost-of-service budget class subtotals. These subtotals are then summed to calculate the total O&M. In addition, NYPA agreed to defer a portion of the 2004 Poletti maintenance outage cost into 2005. This deferred amount is also included in the O&M expense line. See Work Paper O&M05 on page 36.
- **Fuel expense** (Line #2) is the sum of all fuel oil-based and natural gas fuel-related costs associated with the Poletti and new 500MW Combined Cycle Unit plants. See Work Paper Fuel05, Work Paper Fuel05-Poletti and Work Paper Fuel05-500MW CCU on pages 37 through 39.
- **Purchased power** energy (Line #4), capacity (Line #5) and Entergy (Line #6) purchased power expenses are based on the cost of purchased resources, both owned and acquired by NYPA, to meet the power needs of the Government class. See Work Paper PPE05 and Work Paper PPC05 on pages 40 and 41.
- **Delivery Service** (Line #8) is a pass through and, therefore, is not included in the production cost-of-service. Delivery service charges assessed by Con Edison are

recovered through separate NYPA delivery service rates applicable to the Government class.

- **Shared Services** (Line #9) represent the Government customers' allocated share of non-attributable headquarters and other indirect expenses. See Work Paper SSE05 on page 42.
- **Capital cost** recovery is accomplished as it was in the 1990 and 2004 cost-of-service; through a debt service charge. Debt Service (Line #10) represents the principal and interest charges paid on long-term and short-term debt and commercial paper. See Work Paper DS05 on page 43.
- **Bond Reserve, Spent Fuel Disposal** and **Decommissioning** expenses were no longer applicable starting in 2004.
- **Risk Management and Control** expense (Line #15) – The 2005 cost-of-service recognizes that unhedged and unhedgeable variability in supply and prices will cause NYPA to incur costs on behalf of its Government customers. See Work Paper RMR05 on page 44.
- **Ancillary Service** expense (Line #16) and **Ancillary Service** revenues (Line #24) relate to billed charges paid to and revenues received from the NYISO. See Work Paper ASE05 on page 45 and Work Paper ASR05 on page 50, respectively.
- **Other Expenses** (Line #17) include:
 - Demand Side Management (“DSM”) costs representing the current year amortized costs of DSM investments made by NYPA at Government facilities.
 - Charges assessed by the U.S. Department of Energy for Enrichment Plant decontamination and decommissioning. These “D&D” charges relate to nuclear fuel burned during the years when NYPA owned the Indian Point 3 nuclear plant.
 - Post-Retirement Benefits Other than Pension (“PBOP’s”) represent health care benefits and insurance for retirees and their dependents and beneficiaries.
 - Asset Retirement Charges for site environmental decontamination and decommission expense, all associated with clean-up of the generator site following retirement of both Poletti and the new 500MW Combined Cycle Unit facility in the year 2030.

- Special Studies and Miscellaneous expenses.

See Work Paper OE05 on page 46.

- **Investment & Other Income** (Line #19) represents the directly assigned credits for interest earnings on demand side management loans made to Government customers. See Work Paper I&OI05 on page 47.
- **Revenues at STO rates** (Line #22) represent the pro forma revenues expected in 2005 at the standard tariff offering (“STO”) rates which are based on the April 2004 increase. Production demand and energy revenues are calculated on a Service Class basis and summed to a total. Note that certain long-term contract terms and conditions may preclude NYPA from recovering the full STO revenues projected here. See Work Paper CRev05 on page 48.
- **NYISO Revenues** (Line #23) represents the expected revenues from sales of excess capacity and energy from dedicated facilities into the NYISO markets. See Work Paper ISOS-05 on page 49.
- **Overall revenue shortfall** is the amount by which “the normalized pro forma cost-of-service for the Southeast New York (“SENY”) public customers exceeds the normalized pro forma revenues expected from the rate levels in effect.” Article 1, Rates, paragraph (b), New York City Supplemental Agreement.

IV. Supporting Documents

The exhibits and the supporting work papers for this 2005 Preliminary Staff Report follow.

Exhibit "A" – 2005 Embedded Cost-of-Service Study

**NEW YORK POWER AUTHORITY
2005 EMBEDDED COST-OF-SERVICE
GOVERNMENT CUSTOMERS**
(Millions of Dollars)

Work Paper
RR05

Ln. #	<u>Cost Component</u>	<i>Pro Forma</i> <u>2005</u>
(1)	Operation & Maintenance	\$38.5
(2)	Fuel Expense	\$284.2
(3)	<u>Purchased Power</u>	
(4)	Energy	\$529.1
(5)	Capacity	\$31.5
(6)	Entergy (expires 12/31/04)	\$0.0
(7)	<i>Subtotal Purchased Power</i>	<u>\$560.6</u>
(8)	Delivery Service	(see Ln #22)
(9)	Shared Services	\$17.0
(10)	Debt Service	\$82.1
(11)	Bond Reserve	n/a
(12)	Demand Side Management	(incl. in Ln #17)
(13)	Spent Fuel Disposal	n/a
(14)	Decommissioning	n/a
(15)	Risk Management and Control	\$29.0
(16)	Ancillary Services	\$31.5
(17)	Other Expenses	<u>\$14.6</u>
(18)	<i>Subtotal Revenue Required</i>	<u>\$1,057.4</u>
(19)	Investment and Other Income	<u>(\$1.7)</u>
(20)	<i>Total Revenue Required</i>	<u>\$1,055.7</u>
(21)	<u>Revenues</u>	
(22)	at Standard Tariff Offering Rates, excl. delivery	\$537.1
(23)	NYISO Revenues	\$366.1
(24)	Ancillary Services & Other	<u>\$3.2</u>
(25)	<i>Total Revenues</i>	<u>\$906.4</u>
(26)	Overall Revenue Shortfall	\$149.3
(27)	Change in Production Bill	27.8%
(28)	Change in Overall Electric Bill	18.9%

Exhibit “B” – Current and Proposed 2005 Production rates

(See the four following tables.)

GOVERNMENTAL CUSTOMERS
CURRENT CONVENTIONAL PRODUCTION RATES

Service Class		Demand Rates \$/kW-mo.	Base Energy Rates Cents/kWh *
62	General Small	**	6.858
64	Commercial & Industrial Redistribution	9.35	3.530
65	Electric Traction Systems	6.90	4.074
85s	NYC Transit Authority Substation	7.69	3.751
66	Westchester Street Lighting	**	5.413
68/82	Multiple Dwellings Redistribution	8.26	3.642
69	General Large	6.82	3.814
80	NYC Street Lighting	7.52	3.631
91/93/98	NYC Public Buildings	6.97	4.036

* In addition to the base energy rates, there is a stabilized energy charge adjustment that varies annually and is applied on a monthly basis.

** Service classes 62 and 66 do not have demand metering. Accordingly, the base energy rates reflect total demand, as well as energy-related costs.

GOVERNMENTAL CUSTOMERS
CURRENT TIME-OF-DAY PRODUCTION RATES

<u>Service Class</u>		<u>Demand Rates</u> <u>\$/kW-mo.</u>	<u>On-Peak Base Energy Rates</u> <u>Cents/kWh</u>	<u>Off-Peak Base Energy Rates</u> <u>Cents/kWh</u>
64	Commercial & Industrial Redistribution	7.68	5.090	2.815
68/82	Multiple Dwellings Redistribution	7.41	5.262	2.882
69	General Large	5.64	5.442	2.835
91/93/98	NYC Public Buildings	5.71	5.844	2.857

Notes:

- (1) The on-peak period for demand is weekdays from 8AM to 6 PM, including holidays.
- (2) The on-peak period for energy is weekdays from 8AM to 10 PM, including holidays.
- (3) The off-peak period for demand and energy is all other hours.
- (4) Demand rates apply to peak demand during the on-peak period.
- (5) In addition to the indicated energy rates, the stabilized energy charge adjustment is applied on a monthly basis.

GOVERNMENTAL CUSTOMERS
2005 PROPOSED CONVENTIONAL PRODUCTION RATES****

<u>Service Class</u>		<u>Demand Rates</u> <u>\$/kW-mo.</u>	<u>Base Energy Rates</u> <u>Cents/kWh *</u>
62	General Small	**	8.765
64	Commercial & Industrial Redistribution	11.95	4.511
65	Electric Traction Systems	8.82	5.207
85s	NYC Transit Authority Substation	9.83	4.794
66	Westchester Street Lighting	**	5.413***
68/82	Multiple Dwellings Redistribution	10.56	4.654
69	General Large	8.72	4.874
80	NYC Street Lighting	9.61	4.640
91/93/98	NYC Public Buildings	8.91	5.158

* In addition to the base energy rates, there is a stabilized energy charge adjustment that varies annually and is applied on a monthly basis.

** Service classes 62 and 66 do not have demand metering. Accordingly, the base energy rates reflect total demand, as well as energy-related costs.

*** No change from current rates.

**** Proposed increases as allowed by contract.

GOVERNMENTAL CUSTOMERS
2005 PROPOSED TIME-OF-DAY PRODUCTION RATES

Service Class		Demand Rates \$/kW-mo.	On-Peak Base Energy Rates Cents/kWh	Off-Peak Base Energy Rates Cents/kWh
64	Commercial & Industrial Redistribution	9.82	6.505	3.598
68/82	Multiple Dwellings Redistribution	9.47	6.725	3.683
69	General Large	7.21	6.955	3.623
91/93/98	NYC Public Buildings	7.30	7.469	3.651

Notes:

- (1) The on-peak period for demand is weekdays from 8 AM to 6 PM, including holidays.
- (2) The on-peak period for energy is weekdays from 8 AM to 10 PM, including holidays.
- (3) The off-peak period for demand and energy is all other hours.
- (4) Demand rates apply to peak demand occurring during the on-peak period.
- (5) In addition to the indicated energy rates, the stabilized energy charge adjustment is applied on a monthly basis.
- (6) Proposed increases as allowed by contract.

Exhibit "C" – Estimated Customer Impacts

Work Paper
Customer Impacts

**NEW YORK POWER AUTHORITY
2005 EMBEDDED COST-OF-SERVICE
GOVERNMENT CUSTOMERS**

<u>Customer Group</u>	Estimated Annual Customer <u>Impact</u> (\$,000's)	Estimated Annual <u>Electricity Bill</u> (\$,000's)	Estimated Annual Total <u>Bill Impact</u>
New York City	61,000	353,000	17.3%
Metropolitan Transit Authority	43,000	209,000	20.6%
New York City Housing Authority	17,000	98,000	17.3%
Port Authority of NY & NJ	9,000	45,000	20.0%
NYS Office of General Services	3,000	22,000	13.6%
Jacob Javits Convention Center	750	5,000	15.0%
UNDC	463	3,000	15.4%
UDC	122	691	17.7%
Roosevelt Island	92	597	15.4%
Battery Park City	33	237	13.9%

Exhibit “D” – Key Changes and Major Cost Drivers

**NEW YORK POWER AUTHORITY
2005 EMBEDDED COST-OF-SERVICE
GOVERNMENT CUSTOMERS**

	All Customers <u>\$ millions</u> 100%	NYC Customers <u>\$ millions</u> 89%
Cost increases related to the expiring Entergy agreement	\$93	
1st 500MW's replaced under RFP #2		
2nd 500MW's replaced with upstate energy		
Lost NYISO energy sales not replaced		
Partially offsetting value of 500MW CCU	<u>(\$9)</u>	
	<i>Subtotal</i>	
	\$85	\$75
Increased cost of other upstate energy	\$31	
Partially offsetting value of other resources	<u>(\$9)</u>	
	<i>Subtotal</i>	
	\$22	\$20
New provision for Risk Management & Control	\$29	\$26
Increased NYISO charges	\$15	\$13

New York Power Authority
Preliminary Staff Report
2005 Rate Modification Plan for the
Southeast New York Government Customers

Supporting Work Papers

Figure 1 - Embedded Cost-of-Services and Comparison to 2004 Pro Forma

NEW YORK POWER AUTHORITY
2005 EMBEDDED COST-OF-SERVICE
GOVERNMENT CUSTOMERS
(Millions of Dollars)

Work Paper
RR05vs04

Ln. #	<u>Cost Component</u>	<i>Pro Forma</i>	<i>Pro Forma</i>	Differences	
		<u>2004</u>	<u>2005</u>	<u>\$'s</u>	<u>%</u>
(1)	Operation & Maintenance	\$24.6	\$38.5	\$13.9	56%
(2)	Fuel Expense	\$126.9	\$284.2	\$157.3	124%
(3)	<u>Purchased Power</u>				
(4)	Energy	\$236.7	\$529.1	\$292.4	124%
(5)	Capacity	\$41.2	\$31.5	(\$9.7)	(24%)
(6)	Entergy (expires 12/31/04)	\$294.4	\$0.0	(\$294.4)	(100%)
(7)	<i>Subtotal Purchased Power</i>	\$572.3	\$560.6	(\$11.7)	(2%)
(8)	Delivery Service	(see Ln #22)	(see Ln #22)		
(9)	Shared Services	\$14.9	\$17.0	\$2.1	14%
(10)	Debt Service	\$40.7	\$82.1	\$41.4	102%
(11)	Bond Reserve	\$0.0	\$0.0		
(12)	Demand Side Management	(incl. in Ln #17)	(incl. in Ln #17)		
(13)	Spent Fuel Disposal	n/a	n/a		
(14)	Decommissioning	n/a	n/a		
(15)	Risk Management and Control	\$0.0	\$29.0	\$29.0	100%
(16)	Ancillary Services	\$34.4	\$31.5	(\$2.9)	(8%)
(17)	Other Expenses	\$13.6	\$14.6	\$1.0	7%
(18)	<i>Subtotal Revenue Required</i>	\$827.4	\$1,057.4	\$230.0	28%
(19)	Investment and Other Income	(\$2.1)	(\$1.7)	\$0.4	(19%)
(20)	<i>Total Revenue Required</i>	\$825.3	\$1,055.7	\$230.4	28%
(21)	<u>Revenues</u>				
(22)	at STO Rates, excl. delivery	\$500.2	\$537.1	\$36.9	7%
(23)	NYISO Revenues	\$288.4	\$366.1	\$77.7	27%
(24)	Ancillary Services & Other	\$4.4	\$3.2	(\$1.2)	(27%)
(25)	<i>Total Revenues</i>	\$793.0	\$906.4	\$113.4	14%
(26)	Overall Revenue Shortfall	\$32.3	\$149.3	\$117.0	
(27)	Change in Production Bill	6.5%	27.8%		
(28)	Change in Overall Electric Bill	4.3%	18.9%		

Figure 2 – Operating & Maintenance Expense

New York Power Authority
Government Class
2005 EMBEDDED COST-OF-SERVICE

Work Paper O&M05
 Support for RR05 Ln #1

Ln. #	Units	O&M by Project			2005 Totals	
		Poletti	500MW CCU 5/1/2005	Small Hydro		
(1)	Total Site Payroll	\$ millions	\$11.0	\$3.1	\$2.4	\$16.5
(2)						
(3)	Direct Purchases		\$1.2	\$4.3	\$0.4	\$5.9
(4)						
(5)	Stores Issues		\$1.0	\$0.3	\$0.1	\$1.4
(6)						
(7)	Fees & Dues		\$0.3	\$0.1	\$0.0	\$0.4
(8)						
(9)	Office & Station Expense		\$0.6	\$0.4	\$0.2	\$1.2
(10)						
(11)	Contracted Services		\$4.7	\$4.9	\$1.1	\$10.7
(12)						
(13)	Consultants		\$0.6	\$0.0	\$0.1	\$0.7
(14)						
(15)	Other Expense		\$0.0	\$0.0	\$0.0	\$0.0
(16)						
(17)	Assessments		\$0.0	\$0.0	\$0.0	\$0.0
(18)						
(19)	R&D		\$0.0	\$0.0	\$0.0	\$0.0
(20)						
(21)	Prior Period Outage		\$1.8	\$0.0	\$0.0	\$1.8
(22)	Cost Amortization					
(23)	Total O&M Expense		\$21.2	\$13.0	\$4.3	\$38.5
(24)						

Figure 3 – Total Fuel Expense

Ln. #		Units	Total Fuel Expense		2005 Totals
			Fuel by Project		
			500MW CCU	Poletti	
(1)	Natural Gas	\$ millions	\$90.1	\$144.5	\$234.7
(2)					
(3)	Oil		\$0.0	\$51.7	\$51.7
(4)					
(5)	Hedging		\$0.9	\$1.0	\$1.9
(6)	Subtotal		\$91.0	\$197.2	\$288.3
(7)	Emissions Allowance Credit		(\$0.5)	(\$3.6)	(\$4.1)
(8)					
(9)	Subtotals		\$90.5	\$193.6	\$284.2
(10)					
(11)	Net Generation		1,873	2,621	
(12)	Cost of Fuel (¢/kWh)		4.8	7.4	

Work Paper Fuel05
Support for RR05 Ln #2

Figure 4 - Poletti Fuel Expense

New York Power Authority Government Class		2005 EMBEDDED COST-OF-SERVICE												2005 Poletti Fuel Expense	
Ln #		Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	2005	
(1)	Generation	398	393	332	314	131	160	170	176	134	149	172	198	1,804	64%
(2)	Gross Generation	15	15	13	12	5	6	7	7	5	6	7	8	105	
(3)	Less: Station Service	383	378	319	302	126	154	163	169	129	143	165	190	2,621	
(4)	Net Generation														
(5)	Natural Gas	56%	57%	62%	65%	82%	81%	78%	78%	82%	65%	64%	64%	14,460	Averages
(6)	Percent	223	222	206	203	108	130	133	136	110	96	109	127	1,804	
(7)	Gas Generation	1,982	1,986	1,846	1,826	856	915	967	998	829	636	754	867	14,460	
(8)	Spot Natural Gas	\$6.79	\$6.74	\$6.58	\$5.98	\$5.82	\$5.83	\$5.87	\$5.88	\$5.84	\$5.86	\$6.02	\$6.20	\$6.12	
(9)	Spot Gas Burn	\$2.21	\$2.15	\$0.86	\$0.48	\$0.46	\$0.42	\$0.58	\$0.58	\$0.38	\$0.48	\$0.64	\$1.01	\$0.86	
(10)	Natural Gas Price	\$9.00	\$8.89	\$7.44	\$6.47	\$6.28	\$6.25	\$6.45	\$6.46	\$6.23	\$6.34	\$6.66	\$7.20	\$6.97	
(11)	- Henry Hub	\$ 17.8	\$ 17.7	\$ 13.7	\$ 11.8	\$ 5.4	\$ 5.7	\$ 6.2	\$ 6.4	\$ 5.2	\$ 4.0	\$ 5.0	\$ 6.2	\$ 105.2	
(12)	- Basis Difference	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.1	
(13)	Average Cost of Gas - City Gate	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.1	
(14)	Subtotal	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 2.0	
(15)	Variable (Con Edison)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.4	
(16)	Heater Fuel Charge (Con Edison)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.4	
(17)	FTNT Demand/Var	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(18)	Loss on Over/Under runs	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(19)	Demand Charge	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.3	
(20)	System Reinforcement Charge	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.4	
(21)	Subtotal	\$ 18.4	\$ 18.3	\$ 14.3	\$ 12.5	\$ 5.9	\$ 6.2	\$ 6.7	\$ 6.9	\$ 5.6	\$ 4.5	\$ 5.5	\$ 6.7	\$ 111.6	
(22)	Hedged Natural Gas	248	224	248	240	399	540	509	509	440	449	440	509	4,755	
(23)	Hedged Gas Burn	\$8.58	\$8.58	\$8.58	\$6.49	\$6.36	\$6.36	\$6.52	\$6.54	\$6.36	\$6.45	\$6.87	\$7.42	\$7.09	
(24)	Natural Gas Price	\$ 2.1	\$ 1.9	\$ 2.1	\$ 1.6	\$ 2.5	\$ 3.4	\$ 3.3	\$ 3.3	\$ 2.8	\$ 2.9	\$ 3.0	\$ 3.8	\$ 32.8	
(25)	- Henry Hub	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(26)	- Basis Difference	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(27)	Average Cost of Gas - City Gate	\$ 2.1	\$ 1.9	\$ 2.1	\$ 1.6	\$ 2.5	\$ 3.4	\$ 3.3	\$ 3.3	\$ 2.8	\$ 2.9	\$ 3.0	\$ 3.8	\$ 32.9	
(28)	Subtotal	\$ 20.6	\$ 20.2	\$ 16.5	\$ 14.0	\$ 8.4	\$ 9.6	\$ 10.0	\$ 10.3	\$ 8.4	\$ 7.4	\$ 8.5	\$ 10.5	\$ 144.5	
(29)	Variable (Con Edison)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(30)	Heater Fuel Charge (Con Edison)	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
(31)	Subtotal	\$ 20.6	\$ 20.2	\$ 16.5	\$ 14.0	\$ 8.4	\$ 9.6	\$ 10.0	\$ 10.3	\$ 8.4	\$ 7.4	\$ 8.5	\$ 10.5	\$ 144.5	
(32)	Total Gas Expense	\$ 39.0	\$ 38.4	\$ 33.0	\$ 28.0	\$ 16.8	\$ 19.2	\$ 20.0	\$ 20.6	\$ 16.8	\$ 14.9	\$ 17.0	\$ 21.0	\$ 25.4	
(33)	Residual Oil	44%	43%	38%	35%	18%	19%	22%	22%	18%	35%	36%	36%	36%	
(34)	Oil Generation	175	171	126	111	23	30	37	39	24	52	63	70	922	
(35)	Oil Burn	1,749	1,696	1,276	1,134	274	335	408	434	279	590	684	761	9,619	
(36)	Oil Burn	281	273	205	182	44	54	66	70	45	95	110	122	1,547	
(37)	Purchases	300	250	200	200	100	100	100	100	100	200	200	100	1,550	
(38)	Ending Inventory	451	428	422	240	296	342	377	407	362	467	457	435	435	
(39)	Purchase Price	\$34.29	\$33.67	\$32.79	\$31.98	\$31.40	\$31.20	\$31.23	\$31.34	\$31.44	\$31.54	\$31.65	\$31.65	\$31.65	
(40)	Oil Cash Outlays	\$ 10.3	\$ 8.4	\$ 6.6	\$ 3.1	\$ 3.1	\$ 3.1	\$ 3.1	\$ 3.1	\$ 2.2	\$ 3.0	\$ 3.2	\$ 3.2	\$ 3.2	
(41)	Oil Inventory Expensed	\$ 9.8	\$ 9.4	\$ 6.9	\$ 6.2	\$ 1.5	\$ 1.8	\$ 2.1	\$ 2.2	\$ 1.4	\$ 3.0	\$ 3.5	\$ 3.9	\$ 51.7	
(42)	Ending Inventory	\$ 15.6	\$ 14.7	\$ 14.3	\$ 8.1	\$ 9.8	\$ 11.2	\$ 12.2	\$ 13.1	\$ 11.6	\$ 14.9	\$ 14.6	\$ 13.8	\$ 13.8	
(43)	Avg. Inventory Cost	\$34.71	\$34.34	\$33.84	\$33.84	\$33.12	\$32.64	\$32.32	\$32.12	\$32.12	\$31.91	\$31.86	\$31.83	\$31.83	
(44)	Fuel Hedging Expense	\$ -	\$ -	\$ 0.1	\$ -	\$ -	\$ 0.1	\$ -	\$ -	\$ -	\$ 0.8	\$ -	\$ 0.1	\$ 1.0	
(45)	Total Fuel Expense	\$ 30.3	\$ 29.6	\$ 23.5	\$ 20.2	\$ 9.9	\$ 11.5	\$ 12.2	\$ 12.5	\$ 9.9	\$ 11.2	\$ 12.0	\$ 14.5	\$ 197.2	
(46)	Assumptions:	\$5.52	\$5.42	\$5.28	\$5.15	\$5.05	\$5.02	\$5.02	\$5.04	\$5.06	\$5.07	\$5.09	\$5.09	\$5.15	
(47)	[1] Residual Oil in \$/MMBtu	10,000	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	
(48)	[2] Heat Rate for (60,000 Btu/kWh)	10,000	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	
(49)	[3] Heat Content of Residual Oil	10,000	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	
(50)															

Figure 6 - Purchased Power Expense - Energy

New York Power Authority
Government Class

Work Paper PPE05
 Support for RR05 Ln #4

2005 EMBEDDED COST-OF-SERVICE			
Ln. #	Purchased Power Expense - Energy Related	Units	2005 <u>Totals</u>
(1)	NYISO Purchased Power Costs		
(2)	Zone "A" transfers for NYC (Zone "J")		
(3)	From NYISO	MWH	3,899,048
(4)	At LBMP	\$ millions	\$195.4
(5)	Average Cost	\$/MWH	\$50
(6)	RFP#2 Supply		
(6)	From Bilaterals	MWH	3,933,000
(6)	At RFP#2 Prices	\$ millions	\$146.0
(8)	Average Cost [redacted]	\$/MWH	
(9)	Generator & Load Bus Balancing Energy		
(10)	From NYISO	MWH	-
(11)	At LBMP	\$ millions	\$0.0
(12)	Average Cost	\$/MWH	\$0
(13)	Zone "G" transfers to all loads		
(14)	From NYISO	MWH	2,075,235
(15)	At LBMP	\$ millions	\$118.6
(16)	Average Cost	\$/MWH	\$57
(17)	<i>Purchased Energy Subtotal</i>		<u>\$460.0</u>
(18)			
(19)	Congestion-Related Costs		
(20)	NYISO Marginal Losses	\$ millions	\$43.5
(21)			
(22)	NYISO Congestion Charges		
(23)	Congestion Charges	\$ millions	\$103.2
(24)	Congestion Rents	\$ millions	(\$8.8)
(25)	Congestion Reimbursements	\$ millions	(\$95.5)
(26)			
(27)	NTAC Charges	\$ millions	\$4.8
(28)	<i>Net Congestion Expense</i>	\$ millions	<u>\$47.2</u>
(29)			
(30)	Purchased Power Transmission		
(31)	BG to East Fishkill Transmission	\$ millions	\$6.1
(32)	Zone "A" to "J" Transmission	\$ millions	\$15.8
(33)	Intercompany Transmission	\$ millions	\$21.9
(34)			
(35)	Purchased Power - Energy Related		<u>\$ 529.1</u>

Figure 7 - Purchased Power Expense - Capacity

New York Power Authority		Work Paper PPC05	
<u>Government Class</u>		Support for RR05 Ln #5	
2005 EMBEDDED COST-OF-SERVICE			
Purchased Power Expense - Capacity			
Ln.		<u>Units</u>	<u>2005</u>
#			<u>Totals</u>
(1)	In-City Capacity		
(2)	Net Locational Requirement	kW	1,243,059
(3)	Market Priced Purchases		
(4)	Avg. to Loads	kW	105,486
(5)	Cost	\$ millions	\$8.0
(6)	Avg. UCAP Price	\$/kW-mo.	\$6.35
(7)			
(8)	Rest-of-State Capacity		
(9)	Net Requirements	kW	786,579
(10)	Blenheim-Gilboa Pumped Generator (excl. Transmission)		
(11)	Avg. to Loads	kW	250,000
(12)	Cost	\$ millions	\$10.5
(13)	Avg. UCAP Price	\$/kW-mo.	\$3.49
(14)	Blenheim-Gilboa NYISO Credits	\$ millions	(\$4.3)
(15)	Net		<u>\$6.2</u>
(16)	Market-Priced Purchases for Loads		
(17)	Avg. to Loads	kW	527,209
(18)	Cost	\$ millions	\$8.7
(19)	Avg. UCAP Price	\$/kW-mo.	\$1.38
(20)			
(21)	Capacity Purchases	\$ millions	<u>\$23.0</u>
(22)			
(23)	Demand Curve-Related Charges		
(24)	In-City		\$9.36
(25)	Rest-of-State		\$1.01
(26)	Subtotal	\$ millions	<u>\$10.37</u>
(27)			
(28)	Capacity Sales Credits		
(29)	In-City Capacity Resales (KIAC)	kW	21,777
(30)	Sales Weighted Average	\$/kW-mo.	\$7.02
(31)	In-City Capacity Resale Credit	\$ millions	(\$1.8)
(32)			
(33)	Total Cost of Capacity	\$ millions	<u><u>\$31.5</u></u>

Figure 8 - Shared Services Expense

New York Power Authority Government Class 2005 EMBEDDED COST-OF-SERVICE		Shared Services Expense					
Ln. #	Summary	Units	Small Hydro Projects A/K	C/J/VF	875 MW Poletti	500MW CCU	2005
(1)	Allocated Headquarters	\$ millions	0.3	1.4	9.5	4.6	\$15.8
(2)	Research & Development	\$ millions	0.0	0.2	1.0	0.5	\$1.7
(3)	Allocation to Capital	\$ millions	(0.03)	(0.12)	(0.8)	(0.4)	(\$1.4)
(4)	Other						\$0.8
(5)							<u>\$17.0</u>
(6)							
(7)							
(8)							
(9)							
(10)	Shared Services Allocation Detail						
(11)		Units	Small Hydro Projects A/K	C/J/VF	875 MW Poletti	500MW CCU	2005 Total Budget
(12)	Allocation %'s	%'s	0.37%	1.6%	10.7%	5.1%	17.8%
(13)	Headquarters Budget	\$ millions	0.3	1.4	9.5	4.6	\$89.1
(14)	R&D Budget	\$ millions	0.0	0.2	1.0	0.5	\$9.4
(15)							
(16)							
(17)							
(18)							
(19)							
(20)							
(21)	Allocation to Capital Detail (Credit)						
(22)		Units	Small Hydro Projects A/K	C/J/VF	875 MW Poletti	500MW CCU	2005 Total Credit
(23)	Allocation %'s	%'s	0.37%	1.6%	10.7%	5.1%	17.8%
(24)	Total Allocation to Capital	\$ millions					(\$7.7)
(25)	Allocated Credits	\$ millions	(0.0)	(0.1)	(0.8)	(0.4)	(\$1.4)

Notes: A/K refers to the Ashokan and Kensico small hydroelectric projects.
C/J/VF refers to the Crescent, Jarvis and Vischer Ferry small hydroelectric projects.

Figure 9 - Debt Service Expense

Work Paper DS05
Support for RR05 Ln #10

New York Power Authority
Government Class
2005 EMBEDDED COST-OF-SERVICE

		Debt Service - Supporting Detail				
<i>(in \$ millions)</i>		<i>By Project & Type</i>				
Ln. #		Fixed Debt		Variable Debt		2005 Totals
		<u>Principal</u>	<u>Interest</u>	<u>Principal</u>	<u>Interest</u>	
	Dedicated Project Debt					
(1)	Poletti	\$ 25.2	\$ 4.4	\$ -	\$ -	\$ 29.6
(2)	500MW CCU	\$ 20.2	\$ 16.2	\$ 2.9	\$ 2.5	\$ 41.9
(3)	Small Hydro Projects:					
(4)	Ashokan / Kensico	\$ -	\$ 0.1	\$ -	\$ 0.1	\$ 0.1
(5)	Crescent, Jarvis, Vischer Ferry	\$ 1.0	\$ 1.4	\$ -	\$ 1.9	\$ 4.3
(6)						
(7)						
(8)	Dedicated Project Debt	\$ 46.3	\$ 22.1	\$ 2.9	\$ 4.4	\$ 75.8
(9)	<i>Subtotal</i>					
(10)	Overhead Debt					
(11)	Greene County canceled plant	\$ 3.1	\$ 0.5			\$ 3.6
(12)	Arthur Kill canceled plant	\$ 0.1	\$ 0.0			\$ 0.1
(13)	White Plains Office HQ Debt	\$ 1.4	\$ 0.3			\$ 1.6
(14)	Project Study Debt	\$ 0.7	\$ 0.1			\$ 0.8
(15)	Y2K (Year 2000 Project)	\$ -	\$ 0.1			\$ 0.1
(16)	<i>Subtotal</i>	\$ 5.2	\$ 1.0			\$ 6.2
(17)						
(18)	Total Debt Service	\$ 51.5	\$ 23.1	\$ 2.9	\$ 4.4	\$ 82.1

Figure 10 - Risk Management Expense

New York Power Authority

Government Class

2005 EMBEDDED COST-OF-SERVICE

Work Paper RMR05
Support for RR05 Ln #15

Ln. #	Risk Management & Control	
(1)		2005
(2)		<u>Totals</u>
(3)		
(4)	Customer Energy End Use	MWH's 9,905,825
(5)		
(6)		
(7)		
(8)	Provision for Risk Management & Control	<u><u>\$29.0</u></u>
(9)		
(10)	Per Unit Cost	¢/kWh 0.29
(11)		
(12)		
(13)	<i>Note:</i>	
(14)	Risk Management & Control includes provision for	
(15)	both quantity and price hedging, as well as for risk	
(16)	absorption and other future risk hedging expenses.	

Figure 11 - Ancillary Service Expense

New York Power Authority Government Class 2005 EMBEDDED COST-OF-SERVICE		Work Paper ASE05 Support for RR05 Ln #16	
Ancillary Services Expense		2005	Totals
Ln. #	Ancillary Service Categories	Units	
(1)	Schedule 1 Uplift - NYISO Administrative Expenses	\$ millions	\$7.2
(2)	Scheduling, System Control, Dispatch Service		\$9.3
(3)	Local Reliability Rules Uplift		\$6.8
(4)	Statewide Uplift		\$1.2
(5)	NYISO Residual Adjustments		\$0.0
(6)	Demand Response Uplift		
(7)	Schedule 2 - Reactive & Voltage Control from Generation		\$3.4
(8)			
(9)	Schedule 3 - Regulation & Frequency Response		\$2.2
(10)			
(11)	Schedule 4 - Energy Imbalance Service (included in energy purchases)		\$0.0
(12)			
(13)	Schedule 5 - Operating Reserves		\$1.3
(14)			
(15)	Schedule 6 - Black Start		\$0.0
(16)			
(17)	Total	\$ millions	\$31.5

Figure 12 - Other Expense

New York Power Authority Government Class 2005 EMBEDDED COST-OF-SERVICE		Work Paper OE05 Support for RR05 Ln #17	
Ln. #	Other Expenses	Units \$ millions	2005
(1)	Demand-side management		\$2.3
(2)			
(3)			
(4)			
(5)	U.S. DOE Enrichment Plant		\$2.2
(6)	Decontamination & Decommissioning		
(7)			
(8)	PBOP's		\$4.2
(9)	Post-Retirement Benefits Other than Pension		
(10)			
(11)	Asset Retirement Charge		
(12)	for Site Demolition and Restoration		
(13)	Poletti		\$3.7
(14)	Demineralizer at Poletti site		\$0.2
(15)	500MW Combined Cycle Unit		\$0.7
(16)			
(17)	Miscellaneous		
(18)	Special Studies Expense		\$0.9
(19)	Keep Cool Program		\$0.1
(20)	NYS Cost Recovery Fee		\$0.2
(21)			
(22)	<i>Subtotal</i>		<u><u>\$14.6</u></u>

Figure 13 - Investment & Other Income Credit

New York Power Authority
Government Class
2005 EMBEDDED COST-OF-SERVICE

Work Paper I&OI05
 Support for RR05 Ln #19

Investment & Other Income (Credit)			
Ln. #		<u>Units</u>	<u>2005</u>
(1)	Interest earned on Demand-side Management Loans		
(2)			
(3)	Coal Pilots Program	\$ millions	\$ (0.0)
(4)			
(5)	Electrotechnologies		\$ (0.1)
(6)			
(7)	Non-Electric End Uses		\$ (0.3)
(8)			
(9)	Public Housing		\$ (0.8)
(10)			
(11)	SENY H.E.L.P.		\$ (0.0)
(12)			
(13)	SENY H.E.L.P. LTEPA		\$ (0.4)
(14)			
(15)	Total		<u><u>\$ (1.7)</u></u>

Figure 14 - Customer Revenues at Standard Tariff Offering Rates

New York Power Authority

Work Paper CRev05

Government Class

Support for RR05 Ln #22

2005 EMBEDDED COST-OF-SERVICE

Customer Revenues at Standard Tariff Offering Rates

Ln. #		2005 (\$ millions)
	Demand Revenues	
(1)	SC62 General Use - Small	\$0.0
(2)	SC64 Commercial and Industrial Redistribution	\$6.4
(3)	SC65 Electric Traction and Breakdown Service	\$16.1
(4)	SC66 Public and Private Street Lighting	\$0.0
(5)	SC68 Multiple Dwelling - Redistribution	\$18.9
(6)	SC69 General Use - Large	\$21.1
(7)	SC80 New York City Street Lighting	\$6.7
(8)	SC85 New York City Transit Authority Substation Service	\$33.3
(9)	SC88 World Trade Center	\$0.0
(10)	SC91 New York City Public Building Light and Power	\$61.6
(11)	MTA Demand Credit	(\$0.8)
(12)	PLM Payment	(\$2.0)
(13)	Service Tariff Rider "B"	\$1.2
(14)	<i>Subtotal</i>	\$162.4
(15)	Energy Revenues	
(16)	SC62 General Use - Small	\$1.9
(17)	SC64 Commercial and Industrial Redistribution	\$13.6
(18)	SC65 Electric Traction and Breakdown Service	\$34.4
(19)	SC66 Public and Private Street Lighting	\$3.7
(20)	SC68 Multiple Dwelling - Redistribution	\$40.9
(21)	SC69 General Use - Large	\$49.8
(22)	SC80 New York City Street Lighting	\$12.2
(23)	SC85 New York City Transit Authority Substation Service	\$68.6
(24)	SC88 World Trade Center	\$0.0
(25)	SC91 New York City Public Building Light and Power	\$145.1
(26)	ECA Revenues Adj.	\$4.5
(27)	MTA Energy Credit	(\$1.6)
(28)	Third Party NYISO Expense Reimbursement Revenues	\$1.5
(29)	<i>Subtotal</i>	\$374.7
(30)	Total	\$537.1

Figure 15 –NYISO & Other Sales Revenues

New York Power Authority

Government Class

2005 EMBEDDED COST-OF-SERVICE

Work Paper ISOS-05
Support for RR05 Ln #23

		NYISO & Other Sales	
Ln.			2005
#		<u>Units</u>	<u>Totals</u>
	<u>Energy Sales to NYISO</u>		
(1)	Entergy IP2 & IP3		
(2)	To Loads	MWH	3,931,542
(3)	To NYISO	MWH	1,458
(4)	Subtotal		<hr/> 3,933,000
(5)	To NYISO	\$ millions	\$0.1
(6)	Avg. LBMP	\$/MWH	\$48
(7)			
(8)	Charles Poletti Power Plant		
(9)	To Loads	MWH	-
(10)	To NYISO	MWH	2,621,239
(11)	Subtotal		<hr/> 2,621,239
(12)	To NYISO	\$ millions	\$212.5
(13)	Avg. LBMP	\$/MWH	\$81
(14)			
(15)	500MW Combined Cycle Units		
(16)	To Loads	MWH	-
(17)	To NYISO	MWH	1,872,645
(18)	Subtotal		<hr/> 1,872,645
(19)	To NYISO	\$ millions	\$130.7
(20)	Avg. LBMP	\$/MWH	\$70
(21)			
(22)	Small Hydro Projects		
(23)	To Loads (Zone "G" transfers)	MWH	2,075,235
(24)	To NYISO	MWH	158,663
(25)	Subtotal		<hr/> 2,233,898
(26)	To NYISO	\$ millions	\$8.3
(27)	Avg. LBMP	\$/MWH	\$53
(28)			
(29)	NYISO Supplemental Bid	\$ millions	\$6.4
(30)	Production Cost Guaranty		
(31)	Subtotal Energy Sales		
(32)	To NYISO	Subtotal \$ millions	<hr/> \$358.1
(33)			
(34)	<u>Capacity Sales to NYISO</u>		<u>Monthly Averages</u>
(35)	from Poletti (In-City)	kW	79,702
(36)		\$ millions	\$7.0
(37)	from KIAC (In-City)	kW	(see Purchased Capacity credits)
(38)	from 500MW CCU (In-City)	kW	10,000
(39)		\$ millions	\$0.9
(40)		Subtotal \$ millions	<hr/> 89,702
(41)		\$ millions	\$7.9
(42)		\$/kW-mo.	\$ 7.35
(43)	from Rest-of-State Resources	kW	6,908
(44)		\$ millions	\$0.1
(45)		\$/kW-mo.	\$1.38
(46)	Subtotal Capacity Sales	Subtotal \$ millions	<hr/> \$8.0
(47)			
(48)	Total Capacity & Energy Sales		<hr/> \$366.1 <hr/>

Figure 16 - Ancillary Service Revenues

New York Power Authority Government Class 2005 EMBEDDED COST-OF-SERVICE		Ancillary Service Revenues		2005 Totals	
Ln. #		Units \$ millions		Units \$ millions	
	Small Hydro Projects				
(1)	Reactive & Voltage Control	\$0.06		\$0.06	
(2)	Regulation & Frequency Response	\$0.0		\$0.0	
(3)	Operating Reserves	\$0.0		\$0.0	
(4)	Black Start	\$0.0		\$0.0	
(5)			<i>Subtotal</i>		\$0.06
(6)	Entergy PPA - IP2 & 3				
(7)	Reactive & Voltage Control	\$0.0		\$0.0	
(8)	Regulation & Frequency Response	\$0.0		\$0.0	
(9)	Operating Reserves	\$0.0		\$0.0	
(10)	Black Start	\$0.0		\$0.0	
(11)			<i>Subtotal</i>		\$0.0
(12)	875MW Poletti				
(13)	Reactive & Voltage Control	\$1.2		\$1.2	
(14)	Regulation & Frequency Response	\$0.0		\$0.0	
(15)	Operating Reserves	\$1.7		\$1.7	
(16)	Black Start	\$0.0		\$0.0	
(17)			<i>Subtotal</i>		\$2.9
(18)	500MW Combined Cycle Units				
(19)	Reactive & Voltage Control	\$0.3		\$0.3	
(20)	Regulation & Frequency Response	\$0.0		\$0.0	
(21)	Operating Reserves	\$0.0		\$0.0	
(22)	Black Start	\$0.0		\$0.0	
(23)			<i>Subtotal</i>		\$0.3
(24)					
(25)	Total		\$ millions		\$ 3.2

Work Paper ASR05
Support for RR05 Ln #24

Figure 17 - Sources & Uses of Energy

New York Power Authority

Work Paper S&U-E05

Government Class

2005 EMBEDDED COST-OF-SERVICE

		<u>Sources & Uses of Energy</u>	
		2005	
Ln. #	Energy Sources	Units	Totals
	<u>Dedicated Resources</u>		
(1)	Poletti	MWH	2,621,239
(2)	Small Hydro		158,663
(3)	500MW Combined Cycle Units		1,872,645
(4)	Blenheim-Gilboa		-
(5)	Subtotal	MWH	4,652,547
(6)	<u>Purchased Resources</u>		
(7)	RFP#2 Generation	MWH	3,933,000
(8)	Zone "A" & "D" Transfers		3,942,000
(9)	less: St. Lawrence for MTA		(42,952)
(10)	net Zone "A" & "D" Transfers		3,899,048
(11)	St. Lawrence to the MTA (sent)		42,952
(12)	<u>NYISO Energy</u>		
(13)	at Entergy Gen Bus		-
(14)	at Zone "G" Transfers		2,075,235
(15)	at Poletti		-
(16)	at 500MW CCU		-
(17)	at Load Busses		-
(18)	Balancing Energy Subtotal	MWH	2,075,235
(19)	Purchased Resources Subtotal	MWH	9,950,235
(20)	Total	MWH	14,602,782
(21)	<u>Uses</u>		
(22)	<u>Firm Sales (including provision for distribution losses)</u>		
(23)	Government Customer Sales	MWH	9,948,777
(24)	less: St. Lawrence for MTA (sent)		(42,952)
(25)	net Requirement for Firm Sales		9,905,825
(26)	from Poletti		-
(27)	from Small Hydro Generation		-
(28)	from Zone "G" Transfers		2,075,235
(29)	from 500MW CCU		-
(30)	from Blenheim-Gilboa		-
(31)	from RFP#2 Generation		3,931,542
(32)	from Zone "A" Transfers		3,899,048
(33)	Balancing Energy adj. not included elsewhere		-
(34)	Subtotal	MWH	9,905,825
(35)			
(36)	<u>NYISO non-firm & Other Sales</u>		
(37)	to NYISO	MWH	
(38)	from Poletti		2,621,239
(39)	from Small Hydro		158,663
(40)	from 500MW CCU		1,872,645
(41)	from Blenheim-Gilboa		-
(42)	from RFP#2 Generation		1,458
(43)	Balancing Energy adj. not included elsewhere		-
(44)	St. Lawrence to the MTA (sent)		42,952
(45)	Subtotal		4,696,957
(46)	Total		14,602,782

Figure 18 - Sources & Uses of Capacity

New York Power Authority		Work Paper S&U-C05	
<u>Government Class</u>			
2005 EMBEDDED COST-OF-SERVICE		<u>Sources & Uses of Capacity</u>	
		2005	
Ln.	Capacity (for an average month)	Units	Totals
#	<i>In-City Sources</i>		Avg. Monthly
	<u>Dedicated Resources</u>		
(1)	Poletti	kW	858,186
(2)	KIAC		64,200
(3)	500MW CCU (prorated)		326,667
(4)	<u>Purchased Resources</u>		
(5)	Market-priced purchases (prorated)	kW	105,486
(6)	Subtotal	kW	1,354,539
(7)	<i>Rest-of-State Sources (ROS)</i>		
(8)	<u>Dedicated Resources</u>		
(9)	Blenheim-Gilboa	kW	250,000
(10)	Small Hydro Projects		9,370
(11)	<u>Purchased Resources</u>		
(12)	RFP#2 Resources	kW	-
(13)	Market-priced purchases		527,209
(14)	St. Lawrence to the MTA (incl. reserves)		10,957
(15)	Subtotal	kW	797,537
(16)	Total	kW	2,152,075
(17)	<i>Uses</i>		
(18)	<u>Capacity Obligation</u>		
(19)	Contribution to Peak	kW	1,797,881
(20)	With Reserve Requirement	13.5%	2,040,595
(21)	Locational Requirement	75.0%	1,249,966
(22)	less: In-City Requirement for MTA		(6,908)
(23)	net In-City Requirement		1,243,059
(24)	Rest-of-State Requirement (incl. Reserves)		790,629
(25)	less: St. Lawrence to MTA		(4,050)
(26)	net Rest-of-State Requirement		786,579
(27)	<u>For Firm Sales</u>	kW	
(28)	Government Customer Sales (In-City UCR)		
(29)	from Poletti		778,484
(30)	from KIAC		42,423
(31)	from 500MW CCU		316,667
(32)	from Market-priced purchases		105,486
(33)	In-City Subtotal	kW	1,243,059
(34)	Government Customer Sales (ROS UCR)		
(35)	from Blenheim-Gilboa		250,000
(36)	from Small Hydro		9,370
(37)	from RFP#2 Resources		-
(38)	from Market-priced purchases		527,209
(39)	ROS Subtotal	kW	786,579
(40)	All Location Subtotal	kW	2,029,638
(41)	<u>For Resale</u>	kW	
(42)	to NYISO & Others		
(43)	from Poletti In-City to Market (prorated)		79,702
(44)	from KIAC (In-City) to Business		14,870
(45)	from KIAC (In-City) to MTA		6,908
(46)	from 500MW CCU In-City to Market (prorated)		10,000
(47)	In-City Subtotal	kW	111,480
(48)	from Blenheim-Gilboa (ROS)		-
(49)	from MTA St. Lawrence ROS to market		6,908
(50)	from St. Lawrence ROS to the MTA		4,050
(51)	Totals	Subtotal In-City	1,354,539
(52)		Subtotal ROS	797,537
(53)		Total kW	2,152,075

End of 2005 Supporting Work Papers