Overhauling the New York Power Authority's Economic Development Programs

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FOREWORD

To help provide the impetus for a full-scale evaluation of New York's economic development programs, the Citizens Budget Commission (CBC) launched in 2008 a series of research reports to examine specific programs with significant dollars attached to them. The first report—It's Time to Eliminate the Empire Zone Program—was released in December 2008.

The intent of the series is to identify ways that New York's current tools can be used more effectively. The culmination of the project will be a summary that highlights best practices in the economic development field, and shows how New York can bring all of its programs together under one statewide strategic plan to better support its goals. In the wake of the restructuring of the financial services industry, which will have a long-lasting and profound effect on New York's economy, it is imperative that all of the State's economic development efforts yield maximum benefits.

This report, the second in the series, focuses on the numerous subsidized power programs for economic development run by the New York Power Authority. Many of the programs are set to expire over the next few years, and their expiration dovetails with both the restructuring of Empire State Development that was begun in 2007, and the formation by Executive Order of a new State Energy Planning Board in April 2008. The Planning Board is examining a broad range of policy issues that includes the redesign of the Power Authority's economic development programs, which will be featured in its final recommendations.

Founded in 1932, the Citizens Budget Commission is a nonprofit, nonpartisan civic organization devoted to influencing constructive change in the finances and services of New York State and New York City. This report was prepared under the auspices of the CBC's Economic Development Committee, which we co-chair. The other members of the Committee are: Les Bluestone, Kenneth W. Bond, Lawrence B. Buttenwieser, Vishaan Chakrabarti, Bud H. Gibbs, Barry Gosin, H. Dale Hemmerdinger, Harold Levy, Robinson Markel, Frances Milberg, Joyce Miller, Laura Ross, Lee S. Saltzman, Alair A. Townsend, W. James Tozer, Jr., Mark A. Willis, Emily Youssouf, and James L. Lipscomb *ex-offico*. The report was prepared by Elizabeth Lynam, Deputy Research Director, Tammy Pels, Research Associate, and Kathryn Schwartz, Research Consultant, under the supervision of Charles Brecher, Research Director and Executive Vice President, and Carol Kellermann, President.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
INTRODUCTION	5
NYPA'S ECONOMIC DEVELOPMENT PROGRAMS	8
Hydroelectric Power Programs	8
Hydroelectric Power Programs	9
Replacement Power	9
Expansion Power	9
Preservation Power	9
Industrial Economic Development Power	10
Purchased Power Programs	10
Power for Jobs (PFJ)	10
Economic Development Power	11
High Load Factor Power	11
Municipal Distribution Agency Power	11
World Trade Center Recovery Power	11
Program Costs	
THREE PROBLEMS WITH NYPA'S ECONOMIC DEVELOPMENT PROGRAMS	15
Problem #1: NYPA's programs do not support New York's energy goals	16
Problem #2: NYPA's programs are not connected to strategic economic development	
goals	17
Problem #3: NYPA's disclosure of the nature and cost of its economic development	
programs is insufficient	22
RECOMMENDATIONS	24
1. Phase out current programs	24
2. Include assistance for firms with high energy costs as part of a comprehensive	
economic development strategy administered by Empire State Development	
3. Sell power no longer used for economic development at market rates	
4. Link energy conservation and economic development goals and programs	
ENDNOTES	26

EXECUTIVE SUMMARY

The New York Power Authority (NYPA) operates nine different economic development programs. These programs offer discount power to a variety of businesses around the state to try to promote economic growth. As they are currently configured, these programs do not support the State's long-term energy or economic development goals. Deeply discounting power does not create conservation incentives, and there is evidence that the programs are not effective in creating jobs or investments that would grow the economy. Over the next few years many of the programs and contracts with specific firms expire, providing the opportunity to improve them so that they better serve both goals. This report documents the problems with the existing programs and supplies a blueprint for their redesign.

NYPA's Economic Development Programs

Founded in 1931 as a public authority of the State of New York, NYPA is a major power company in its own right. With \$3.8 billion in infrastructure assets that include 18 generating facilities and more than 1,400 circuit miles of transmission lines, the Authority is the largest public utility in the nation.¹ It generates, transmits, and sells electricity to a range of customers, including the governments of New York City and Westchester, municipal and rural cooperative electric systems, investor-owed utilities, high-load factor industries and other businesses, and some out-of-state power companies. As a public authority, NYPA has a separate budget, operating structure, and board, and can make decisions under fewer constraints than a State agency.

Part of NYPA's current mission is to provide subsidized power for economic development. NYPA administers nine different economic development programs that supply discount power to firms around the State. Decisions about which firms receive benefits from NYPA are ultimately made by the seven-member Board of Trustees of NYPA, which is appointed by the Governor and confirmed by the Senate. Of the nine programs, four—Replacement Power, Expansion Power, Industrial Economic Development Power, and Preservation Power—rely on hydroelectric power produced at Niagara Falls and the St. Lawrence-FDR facility. Five of NYPA's economic development programs—Power for Jobs, Economic Development Power, High Load Factor Power, Municipal Distribution Agency Power, and the World Trade Center Recovery Power program—rely on purchased power, for which NYPA goes into the marketplace and enters into contracts with suppliers.

Although little public data is available about the value of benefits awarded to participating firms, the CBC applied a set of assumptions to construct a cost model and determined that the cost of these programs ranges from \$479 million to \$640 million annually. These figures

represent estimates of the additional revenue and lower costs that NYPA would experience if it were not substantially discounting the power for program participants.

Three Problems with NYPA's Economic Development Programs

Despite the popularity of these programs with businesses and the legislators who have repeatedly renewed them, three major problems characterize subsidizing power for economic development purposes.

- NYPA's programs do not support New York's energy goals. Offering deep subsidies for energy conflicts with New York's goals of reducing overall energy costs and usage. New York's energy prices are among the highest in the nation, reducing the State's economic competitiveness and stressing household budgets. Although the high cost of power is a concern for firms doing business in the State, subsidizing power works against environmental improvement efforts by encouraging consumption rather than conservation, a problem that is exacerbated by the fact that current allocations are made without regard to the environmental record of the participating firms. With ambitious goals in place for conservation and increased use of energy from renewable sources, New York needs programs that complement, not undermine, these goals.
- 2. NYPA's programs are not connected to strategic economic development goals. Power discounts are not coordinated with the State's overall plan for economic development. The allocations are not guided by a comprehensive strategy to draw in new, or maintain existing economic activity in the State, and lack compelling and publicly disclosed cost-benefit justifications and performance metrics.
- 3. NYPA's disclosure of the nature and cost of the economic development programs it oversees is insufficient. The magnitude of the discount power programs run by NYPA is not publicly disclosed. Information about the sizeable loss of revenue to NYPA due to the subsidies is scarce and scattered; they are essentially "off the books." Recommendations of a blue ribbon commission that would have improved reporting on the benefits granted by these programs have not been implemented.

Recommendations

New York should move away from subsidizing power. State leaders should overhaul NYPA's economic development programs using four guidelines:

1. Phase out current programs. No new legislation should be passed to reauthorize the programs, and current contracts should be allowed to expire. Since the Alcoa contract was recently renewed and will not expire until 2043, the terms of that subsidy may warrant reexamination before the expiration date. Firms whose contracts are expiring should be allowed to apply for a case-by-case review to determine if a more gradual phase-out should be applied to the withdrawal of current subsidies.

As the old programs are phased out, they should be subject to greater disclosure requirements. The transparency and accountability measures recommended by the 2006 Commission should be implemented, as a first step toward better overall reporting on all economic development programs. In addition, the information to be produced by NYPA as part of the most recent annual renewal of the program should be made public.

- 2. Include assistance for firms with high energy costs as part of a comprehensive economic development strategy administered by Empire State Development (ESD). The strategy should account for all the costs and benefits of a particular incentive package together. Guidelines for deciding which firms to assist should consider the types of jobs and sectors of the economy New York would benefit from most and could best attract, and whether high power costs are a location factor. High tech, clean tech, and other high-value-added industries likely would be a priority. Ease of application and simplicity for businesses should be the goal in the design of a single application.
- 3. Sell power no longer used for economic development at market rates. The estimates in this report suggest that this would generate between \$479 million and \$640 million in additional revenue and lower costs for NYPA, which would increase its operating surplus substantially. Some of the funds should be allocated to economic development programs operated by the State's principal economic development agency, Empire State Development. This would ensure the funds remain devoted to economic development goals, and would—under a revitalized strategic plan and the proper performance metrics—enhance their likely effectiveness. A new grant program to be administered by ESD to assist firms that find power costs an especially difficult operating constraint could be funded in this way. Decision-making authority could also be shared with NYPA, to achieve better permanent collaboration between the two authorities, but an ESD-administered strategic plan should serve as the ultimate guide to any joint effort. Firm preference for power contracts rather than direct grants should also be taken into consideration.

Another option is to allow NYPA to retain the new earnings and invest the funds in energy infrastructure improvements it otherwise could not afford. A modern, more efficient, energy grid would provide broad benefits in the form of a more reliable system to virtually all businesses and residents in the state. The 1,400 miles of transmission lines that NYPA owns form the backbone of New York's electrical grid, and proper investments in this key infrastructure are critical.

The CBC recommends that the mix of uses for the new revenues be the subject of an informed policy debate. Each use has its merits, and more public discussion and legislative consideration can help achieve a balanced approach.

4. Link energy conservation and economic development goals and programs. Firms that receive benefits specifically to alleviate the high cost of their power should be required to submit to energy audits, and to comply with best practices for energy efficiency available in NYSERDA. New York Energy \$mart, the program that NYSERDA finances and operates, could extend additional low-interest loans to private firms to make their facilities more energy-efficient. If requiring firms to secure financing proves problematic, NYPA's existing beneficiary-funded energy-efficiency financing programs are an option that could be used more broadly.

INTRODUCTION

The New York Power Authority (NYPA) traces its origins to the 1907 proposal of then-governor (and later United States Chief Justice) Charles Evan Hughes that the state's potential for water power be developed for the public benefit rather than through private firms.² The idea became public policy in 1931 with Governor Franklin D. Roosevelt's signing of the Power Authority Act, creating a public benefit corporation to build and operate hydroelectric facilities on the St. Lawrence River. However, conflicts over international law and political opposition prevented the project from being launched until the early 1950s. Under Chairman Robert Moses (one of his multiple positions), NYPA then built the St. Lawrence-Franklin D. Roosevelt Power Project, an 800-megawatt hydroelectric generating facility that began operations in 1958.

In 1956 the destruction by a rockslide of a large private generating facility in the Niagara Falls area created a new opportunity for NYPA. Because many jobs at plants that relied on the facility for power were endangered, Congress passed the Niagara Redevelopment Act, which facilitated NYPA's ability to begin construction of an even-larger replacement facility. NYPA completed the 2,400-megawatt Niagara Power Project, then the Western world's largest hydroelectric complex, in early 1961. Power from the two large hydroelectric plants is sold primarily under long-term contracts to utilities serving areas in upstate New York, large industrial customers, and some out-of-state customers.

In the late 1960s, at the initiative of Governor Nelson Rockefeller, the State Legislature authorized NYPA to develop facilities using new technologies—pumped storage hydroelectric and nuclear power. The 1,040-megawatt Blenheim-Gilboa Pumped Storage Power Project in the Catskill Mountains began operations in 1973, and the 820-megawatt James A. Fitzpatrick Nuclear Power Plant near Oswego began functioning in 1975.

Rapidly growing electricity demand and rising fuel prices caused by the 1973 Mideast oil embargo created financial problems for Con Edison, the utility serving New York City and Westchester County. To aid the company, the State Legislature in 1974 directed NYPA to buy, complete and operate two power plants that Con Edison was building – the 970-megawatt Indian Point 3 Nuclear Power Plant in Westchester and an oil-fired plant in Astoria, Queens. The nuclear plant began operations in 1976. The other plant opened in 1977, but it subsequently was converted to burn gas and oil with an 825 megawatt capacity and was renamed the Charles Poletti Power Project.³ The power from these plants is sold primarily to government agencies including the Metropolitan Transportation Authority, the New York Housing Authority and Westchester County and is delivered via Con Edison's local grid. NYPA was able to build and operate the plants at a lower cost than could Con Edison, because NYPA had access to tax-exempt financing and is exempt from property, income and other taxes levied on private utilities.

In subsequent years, NYPA undertook additional roles. To help New Yorkers gain access to low- cost power generated in Canada, the agency built a high-capacity transmission line from the Canadian border to a control center near Utica, completed in 1978. In the 1980s, the line was extended to Dutchess County, and a new cable under Long Island Sound brought power to Long Island. NYPA's generating capacity has been expanded through the construction of five small hydroelectric plants throughout the state, with a combined capacity of nearly 30-megawatts, construction of the gas-fired, 135.6-megawatt Richard M. Flynn Power Plant in Suffolk County opening in 1991,⁴ and construction of a new 500-megawatt natural gas-fueled generator on the site of the Poletti plant opening in 2005.

NYPA's role was altered by the State's adoption under Governor George Pataki of a "deregulation" strategy for the electric power industry. The distribution of electricity by local utilities was separated from the generation of power; distribution remained a regulated function with rates set by the Public Service Commission, while power generation was separated from the utilities and made a competitive industry with power sold through a market operated by the New York Independent Service Operator (NYISO). To encourage competitive production facilities, NYPA sold its two nuclear plants to a private operator, Entergy Corporation, in 2000. With the sale of its nuclear plants and the creation of a NYISO market, NYPA relies on power purchased in the market (rather than produced at its own facilities) to meet a significant part of its customers' needs, especially the government customers. NYPA also sells, through the competitive market, excess power from its plants that is not needed by its long-term customers.

The ability to sell power in a competitive market has been a significant revenue opportunity for NYPA. Largely as a result of these sales, since 2000 it has had substantial income above expenses even as it meets the needs of its long-term customers for low-priced power. Given the potential surpluses, the Legislature has in recent years authorized NYPA to make "voluntary" contributions to the State's general fund. Between 2002 and March 2008, these contributions totaled \$424 million, and additional sums were authorized for the State's 2008-09 and 2009-10 fiscal years.⁵

While NYPA sells power and offers discounted power to businesses and nonprofits, it is not solely responsible for State energy policy. Another important entity is the New York State Energy Research and Development Authority (NYSERDA), a separate authority founded in 1975 and run by a separate 13-member board. Its mission is to collaborate with academic institutions, businesses, the civic community, and the federal government to diversify and enhance New York's energy supply and facilitate use of clean technology that will improve the environment. The authority partially finances its activities through an assessment on utility bills called the "Systems Benefit Charge." Part of NYSERDA's portfolio is New York Energy \$mart, which extends low-interest loans to private firms and residences for use of energy-efficient or "green tech" products in their capital improvements. Program expenses for New York Energy \$mart were \$157 million in 2007.

Although NYPA's overall mission and activities—supplying low-cost and reliable power to New York firms and residents—is an important aspect of promoting New York as a competitive business location, the Legislature has directed the agency to undertake additional specific and targeted activities identified as its "economic development" programs. These programs give special discounts on power to selected firms in exchange for commitments to retain or add jobs and/or capital investments. These economic development programs are the focus of this report.

The remainder of this report is organized into three sections. The next section describes NYPA's nine economic development programs. The following section identifies and documents three problems with NYPA's programs. The final section presents the CBC's recommendations for overhauling these programs.

NYPA'S ECONOMIC DEVELOPMENT PROGRAMS

NYPA's 1931 authorizing statute charged the agency, "To study the desirability and means of attracting industry to the state of New York..." Over time the Legislature expanded NYPA's economic development role. Currently NYPA is authorized to operate nine economic development programs summarized in Table 1. Together the programs reserve for the selected firms 2,322 megawatts of power. Of this total, 1,239 megawatts are allocated from the two large hydroelectric plants, representing nearly 40 percent of their combined capacity. This hydroelectric power is made available at a substantial discount. For example, in 2008 recipients paid 1.8 cents to 2.2 cents per kilowatt-hour, instead of the market rate of 6.7 cents, a discount that ranged from 68 to 73 percent. Nearly all the remaining power allocated under the programs is purchased through NYISO by NYPA and then resold to the benefiting firms at below-market prices at a loss to NYPA. The discounts under the purchased power programs are less steep than under the hydroelectric power programs. For example, the per-job subsidy available to beneficiaries of the hydroelectric programs ranges from \$5,836 to \$7,883.9 In contrast, in the purchased power programs the range is \$390 to \$630 per job. Nearly programs the range is

Table 1 A Summary of NYPA's Power Subsidy Programs for Economic Development, 2007								
Program Size				Service	Statutory Authorization			
Program	Megawatts	Jobs	Type of Power	Area	Start	End		
Power for Jobs	483	250,715	Purchased	Statewide	1997	2009		
Economic Development Power	260	73,777	Purchased	Statewide	1987	None		
High Load Factor Power	164	4,707	Purchased	Statewide	1968	None		
Municipal Distribution Agency Power	96	22,681	Purchased	Downstate b	1968	None		
Replacement Power	445	24,252	Hydro	Western NY ^c	2005 ^d	None		
Expansion Power	250	33,582	Hydro	Western NY ^c	1987	None		
Industrial Economic Development Power ^a	54	2,700	Hydro	Utilities ^e	1991	2025		
Preservation Power ^a	490	1,500 ^f	Hydro	North Country ^g	2005	None		
World Trade Center Recovery Power ^a	80	40,000 ^h	Mixed	WTC area	2001	None		
Total	2,322	453,914	NAP	NAP	NAP	NAP		

Source: The Commission on the Future of New York State Power Programs for Economic Development, New York Power Authority Electricity for Economic Development, Program Summary and Appendix 9, August 2006, and New York Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008.

Notes:

^a Data for these programs is from August 2006, the most recent available.

^b For New York City Public Utility Service Agency and Westchester, Nassau, and Suffolk County's Public Utility Service only.

^c Power allocated within a 30-mile radius of the Niagara plant.

^d Federal law established the program in 1957 and the law expired in 2005. State law codified it in 2005.

^e Allocated to municipal electric systems and rural electric cooperatives.

^f Includes 1,300 jobs associated with the Alcoa subsidy, although these are not contractually required.

g Power allocated within the three counties surrounding the St.Lawrence-FDR plant-St. Lawrence, Jefferson, and Franklin counties only.

^h World Trade Center Recovery Program jobs are not contractually required.

Hydroelectric Power Programs

Four of NYPA's economic development programs—Replacement Power, Expansion Power, Industrial Economic Development Power, and Preservation Power—are supplied by hydroelectric power produced at Niagara Falls and the St. Lawrence-FDR facility. These programs make use of two of the significant power assets, its publicly owned hydroelectric plants. By State law, Replacement and Expansion power must be allocated within a 30-mile radius of the Niagara Power Project, with a small allocation allowable to businesses in Chautauqua County. State law requires that the Preservation Power drawn from the St. Lawrence-FDR plant be allocated to three counties in the North Country—St. Lawrence, Franklin, and Jefferson.¹¹

Replacement Power dates from the opening of the Niagara Power Project. The federal government guaranteed discounted allocations of power from the new plant to customers of the power plant that it replaced. The power allocations were protected under federal statute for the full term of the bonds used to complete the project. When the bonds were fully paid in 2005, the State Legislature required NYPA to renew or extend for at least five years every contract under the program that expired prior to August 31, 2007. In 2007, Replacement Power made 127 allocations to 73 recipients and had 24,252 jobs committed.

Expansion Power, established in 1987, makes 250 megawatts of hydropower available to businesses in Western New York and includes 20 megawatts for Chautauqua County. Power allocations are given on a competitive basis to businesses that pledge to create jobs, increase electric load, expand current or build new facilities, and have a minimum of 100 kilowatt hours of usage. In 2007, Expansion Power made 100 allocations to 69 recipients and had 33,582 jobs committed. Many firms in Western New York that participate in Replacement Power also receive allocations under the Expansion Power program.

Preservation Power makes available up to 490 megawatts of hydropower to businesses in Jefferson, St. Lawrence, and Franklin counties. One business accounts for the lion's share of the allocation. The Alcoa plant located in St. Lawrence receives 478 megawatts annually. When construction began on the St. Lawrence hydroelectric facility, Alcoa was producing its own hydroelectric power. In order to get Alcoa to surrender its right to tap the river to make its own power, NYPA promised the firm a discounted allocation of power from the new facility. The Alcoa contract was originally signed in 1958 and was renewed in 1981. The Alcoa facilities—three aluminum smelters—employ about 1,300 people in Massena, New York, although its contract contains no job creation or maintenance requirements. In January 2009, Alcoa's contract, which would not have expired until 2013, was renewed and extended to 2043. At that time the company announced that it planned to invest \$600 million and commit to 900 jobs over a period of 30 years to upgrade its facilities. Since the contract was renewed, Alcoa's business has been down, leading it to cut back on its power use at the Massena smelters. The remaining 12 megawatts in the program are allocated to General Motors PowerTrain in Massena, New York, which has committed 200 jobs.

Industrial Economic Development Power supplies up to 54 megawatts to businesses in the 51 municipal electric systems and rural electric cooperatives served by the hydroelectric plants. Power allocations are given to businesses that produce 25 jobs per megawatt and create at least 200 kilowatts of new electric load. Businesses in the affected areas have committed 2,700 jobs.

Purchased Power Programs

Five of NYPA's economic development programs rely on purchased power—Power for Jobs, Economic Development Power, High Load Factor Power, Municipal Distribution Agency Power, and World Trade Center Recovery Power. Together these programs account for 1,003 megawatts and 351,880 jobs committed. This represents 43 percent of the total power and 78 percent of total jobs committed. The high percentage of jobs committed is explained by the large number associated with Power for Jobs. Businesses participating in Power For Jobs account for 55 percent of the total jobs in the nine programs.

Power for Jobs (PFJ) was created in 1997 and has been renewed and expanded since. The program gives discounted power to approved businesses in the form of lower rates from their local utility companies. In addition, the local utilities receive a tax break on their utility gross receipts tax for the discount they offer on transmission. The program was originally intended to provide transitional assistance during the restructuring of New York's electricity market. Deregulation provided the impetus for the sale of NYPA's Fitzpatrick nuclear power plant to Entergy. By the terms of the sale, 200 megawatts of power from the facility were to be re-directed back to NYPA. The remaining 200 megawatts authorized by the original statute were to be purchased by NYPA. Upon the expiration of the deal to support the program with low-cost nuclear power, NYPA began to purchase all of the power for the program.

Although PFJ was created to provide temporary support for firms adjusting to the deregulated electricity market, it immediately proved popular. Instead of being allowed to sunset in December 2005 as originally intended, it now provides 492 subsidy allocations to 471 organizations throughout the state¹⁵ that provide 250,715 jobs¹⁶ on an annual renewal schedule. The PFJ program has an option, added in 2004, that offers a rebate paid directly to firms for a portion of their power costs instead of a discount on the rate. The rebate option was added to streamline program administration by sending checks directly to firms rather than passing the discount through local utility companies. The rebate reimburses the business for increases in rates above the base year, which is set at 2003-04 levels. Firms had two opportunities to convert to the rebate—one in 2003-04 and another in 2007-08. In 2006 NYPA reported that 167 participants chose the rebate program and that 167 megawatts were allocated to those firms.¹⁷

Economic Development Power (EDP) was created in 1987, and makes available up to 260 megawatts of purchased power to businesses across the state. In 2007 the program made 65 allocations to 59 recipients and had 73,777 jobs committed. Businesses approved for EDP are awarded five-year contracts.

Discount power allocations under PFJ and EDP are made by the New York State Economic Development Power Allocation Board (EDPAB), consisting of two appointees of the Governor, one appointee of the Senate Majority Leader, and one appointee of the Speaker of the Assembly. Applications are reviewed by the EDPAB and then submitted with recommendations to NYPA for final approval. If NYPA denies an applicant that has been recommended by EDPAB, it must provide written justification.

The criteria for PFJ and EDP subsidies are set by the EDPAB under statutory guidelines that direct them to "address, but need not be limited to" 12 factors including the number of new jobs to be created, the planned capital investment in a facility, the ratio of power requested to the jobs created, the type of jobs and buildings to be created, and the extent to which the goals of the applicant fit within regional and statewide economic development plans. The law also allows the EDPAB to make an allocation to a firm in "serious, long-term distress." To apply under these conditions, a firm must submit a "revitalization plan" endorsed by the firm's board of directors describing the steps the firm will take to turn around its operation.

High Load Factor Power, created in 1968, provides up to 164 megawatts to energy-intensive industries throughout the state. Power is allocated to expanding industries with electricity costs equal to at least 7.5 percent of product costs, an electric load of 5 megawatts or greater, and peak demand of 540 kilowatts hours per month or greater. In 2007, High Load Factor Power made eight allocations to six recipients and had 4,707 jobs committed. Firms that receive High Load Factor power must meet NYPA's criteria for Economic Development Power.¹⁹

Municipal Distribution Agency Power offers up to 96 megawatts to firms served by downstate municipal distribution agencies, which include the New York City Public Utility Service Agency, the Westchester County Public Utility Service, the Nassau County Public Utility Service, and the Suffolk County Public Utility Service. Municipal Distribution Agency Power made 33 allocations to 31 recipients and had 22,681 jobs committed. Applicants to the Municipal Distribution Agency Power Program are reviewed and approved by individual municipal agencies that in turn recommend power allocations to NYPA. Final approval by NYPA is based on the same rules and regulations that apply to the High Load Factor Program.

World Trade Center Recovery Power, created by legislation enacted in 2001, allowed up to 80 megawatts previously allocated to the Port Authority of New York and New Jersey's destroyed World Trade Center to be reallocated to downtown businesses impacted by the September 11 terrorist attacks. World Trade Center Recovery Power has been allocated to 45

recipients. Although NYPA reports 40,000 jobs associated with program participants, no specific job targets are required.

Under the 2001 legislation, contracts would have begun to expire at the end of 2005. However, in 2005 legislation was passed to renew existing contracts and to ensure that future allocations are made to companies located in both the Liberty and the Resurgence Zones of lower Manhattan (the area of lower Manhattan south of Canal Street and the area between Canal and Houston Streets, respectively).

In addition to its economic development programs, NYPA offers a generous subsidy to residential users through its Rural and Domestic power program. Local utility companies that receive power from NYPA can lower their rates for all of their customers, thereby making the geographic area where they are located less costly. In areas that receive the benefit, for example, utility firms can lower residential rates by 6 to 14 percent on average. In 2006, the Temporary Commission on the Future of New York State Power Programs for Economic Development priced the subsidy at \$228 million²¹ and called for it to be reprogrammed to support economic development goals. Although not considered an economic development program by NYPA, and therefore outside the scope of this paper, the policy goals and economic benefits of the Rural and Domestic power program, and the large subsidy associated with it, warrant reexamination.

Program Costs

The available information on the cost of the NYPA's economic development programs is limited. However, it is possible to supplement that information and construct a cost model that relies on data from NYPA, from NYISO, and on reasonable assumptions.²² There are three parts to the model:

- 1. For hydroelectric supply programs, the cost to NYPA is the difference between the rate charged to the benefiting firms and the rate at which the power could be sold on the NYISO market. The loss to NYPA can be estimated by multiplying the difference between the discount price and the market price by the number of kilowatt hours available to the beneficiaries. This analysis results in cost estimates ranging from \$362 million to \$489 million, depending on the assumed prices, and usage patterns among participants. ²³ It is important to note that not all of the power available to the programs has been allocated to businesses. ²⁴ The excess power is a source of revenue for NYPA, because it sells it on the wholesale market, and the CBC cost model assumes that NYPA is selling the capacity.
- 2. For purchased power programs, the cost to NYPA is the difference between the amount it pays to purchase the power and the amount it receives from the firms benefiting from the discount programs. For three purchased power programs— Economic Development Power, High Load Factor Power, and Municipal Distribution

Power, NYPA is purchasing the power for more than it is charging the beneficiaries. It is possible to estimate a range of costs to NYPA by making assumptions about typical power usage by the firms awarded discounts, and then calculating the difference between the rate NYPA paid and the rate NYPA charges the beneficiaries of these programs. This method produces a range of costs of \$55 million to \$89 million per year.

3. For Power for Jobs, there are costs to NYPA for paying the rebate directly to the beneficiaries that took that option, and for repaying the local utilities for the lost revenues they experience from waiving the transmission surcharges they would normally apply to the bills of program beneficiaries. For the PFJ program, contract price ranges show that the rate billed to beneficiaries nearly equals the purchase price paid by NYPA. This means that the cost of PFJ is just the cost of the rebate checks, which are sent directly to the program participants that selected that option, and the payment made to replace the revenue lost from lower transmission charges on the beneficiaries. Data reported by NYPA and the New York State Division of Budget indicate that these costs for 2007 were \$42 million²⁵ for the rebates and \$20 million for the lost transmission charge revenue.²⁶

A summary of the cost elements of the programs is provided in Table 2. The total cost of the programs is between \$479 million and \$640 million annually. The estimates use the average wholesale price reported by NYISO for the April 1, 2007 to March 31, 2008 period, which was 6.7 cents per kilowatt. ²⁷

Across all programs on a cost-per-job-committed basis the estimated subsidy ranges from \$1,045 to \$1,410, with considerable variation evident among programs. The per-job costs associated with the hydro subsidies are much deeper, ranging from \$5,836 to \$7,883. The PFJ program has the lowest subsidies of \$247 per job.

Table 2
Range of Estimated Revenue Loss from New York Power Authority
Economic Development Programs

Fiscal Year 2008 (Low and High Estimates)

Type of Revenue Loss	Power for Jobs Purchased Power		Hydro-Power		Total			
	Low	High	Low	High	Low	High	Low	High
Tax credit against gross receipts tax to				_				_
compensate lower utility net receipts	20	20	NAP	NAP	NAP	NAP	20	20
Cost of selling purchased power at a loss	NAP	NAP	55	89	NAP	NAP	55	89
Power for Jobs reimbursement rebates ¹ Lost revenue from not selling hydro-power	42	42	NAP	NAP	NAP	NAP	42	42
on open market	NAP	NAP	NAP	NAP	362	489	362	489
Total Revenue Loss (in millions of dollars)	\$62	\$62	\$55	\$89	\$362	\$489	\$479	\$640
Jobs Committed	250,715	250,715	141,165	141,165	62,034	62,034	453,914	453,914
Cost per Job (in dollars)	\$247	\$247	\$390	\$630	\$5,836	\$7 , 883	\$1,055	\$1,410

NAP = Not Applicable

Notes:

Based on fiscal year 2008, unless otherwise noted.

Based on available megawatts.

1) Fiscal year 2007

Sources: New York Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008. New York Power Authority, Service Tariffs 1, 1-S, 35 and 50, Revised October 31, 2007. New York Independent System Operators <www.nyiso.com>.

THREE PROBLEMS WITH NYPA'S ECONOMIC DEVELOPMENT PROGRAMS

New York's high energy costs are problematic for businesses and households, and State leaders are right to make lowering these costs an economic development goal. Although energy prices fluctuate depending on demand and variation in the market, for 2007 the cost-per-kilowatt-hour for commercial power in New York was nearly twice the national average and second highest among the states; for industrial power, costs in New York rank fifth among its competitors and thirteenth among all states, and are 151 percent of the national average. (See Table 3.) The smaller cost differential for industrial power in part reflects the deep subsidies extended to a small number of large manufacturing concerns that get hydroelectric power from the Expansion, Replacement, and Preservation power programs. The Business Council of New York State estimates that, without these subsidies, average industrial power costs in New York would be 35 percent higher.²⁸ Fully 92 percent of the manufacturing firms in these regions do not receive power subsidies; they struggle to be competitive without a NYPA subsidy.²⁹

Table 3
Electricity Rates
New York and Competitor States, 2007*

	Commercial Prices			Industrial Prices				
	Average		Relation to		Average		Relation to	
	Price in	50-State	U.S.		Price in	50-State	U.S.	
Competitor State	Cents/kWh	Rank	Median	Competitor State	Cents/kWh	Rank	Median	
New York	15.9	2	194%	Massachusetts	13.1	3	229%	
Connecticut	15.4	3	188%	Connecticut	12.9	4	226%	
Massachusetts	15.2	4	186%	New Jersey	10.1	8	177%	
New Jersey	13.0	6	158%	California	10.1	9	176%	
California	13.0	7	158%	New York	8.7	13	151%	
Texas	9.9	15	120%	Texas	7.8	15	136%	
Florida	9.8	16	119%	Florida	7.8	16	136%	
Pennsylvania	9.2	17	112%	Pennsylvania	6.9	17	120%	
Michigan	8.8	20	107%	Michigan	6.8	18	118%	
Ohio	8.7	23	106%	Illinois	6.6	19	116%	
Illinois	8.6	24	104%	Ohio	5.8	24	101%	
Georgia	8.1	27	98%	Georgia	5.6	28	97%	
U.S. Median Price	8.2		100%	U.S. Median Price	5.7		100%	

Notes: * The "competitor" states are the ten largest states by population size (including New York) plus the two neighboring states of Connecticut and New Jersey

Sources: Energy Information Administration: Official energy Statistics from the U.S. Government, Report No. DOE/EIA-0226 (2009/02): Table 5.6.B http://www.eia.doe.gov/cneaf/electricity/epm/table5 6 b.html> Report Released February 13, 2009.

New York's high power costs are driven by a variety of forces. New York does not rely heavily on relatively inexpensive domestically produced coal, but chooses instead to burn more environmentally friendly natural gas, which it must import through a system of costly pipes and transfer stations. As other states begin to use less carbon-based fuel under new federal energy policies, New York's competitor states are likely to have to raise prices. Since New York is already heavily invested in natural gas, its price differential associated with that more environmentally friendly fuel choice will likely diminish. New York also regulates energy activities heavily and imposes stricter environmental standards than most states. Higher taxes are a factor too, adding 10 to 12 percent to the average customer's bill, depending on local tax rates. In addition, the limited transmission line capacity and expensive maintenance for New York City's underground grid drive up costs.

Some businesses that contribute to the state's economic health are being helped by NYPA. However, the design of the programs compromises their effectiveness and does not effectively support New York's long-run economic development and energy conservation policy goals. Three major problems exist.

Problem #1: NYPA's programs do not support New York's energy goals.

New York's energy policy goals go beyond lowering costs. State leaders also have set ambitious environmental goals, articulating a "45 in 15" target, which means that by 2015 the State should meet 30 percent of its energy demand from renewable sources, such as wind power, while at the same time reducing consumption by 15 percent with energy efficiency measures. NYPA's programs work against these goals.³¹

NYPA's firm-specific subsidies do not deal with the structural elements of the energy cost issue, and they are counterproductive in terms of the environmental goal of lowering energy consumption. As many observers noted from the experience in the summer of 2008, it took a large and rapid rise in gasoline prices to encourage motorists to pay attention to fuel efficiency and curb fuel use. Cheap gas does not motivate people to conserve. Following the same logic, subsidized energy costs are not going to encourage businesses to reduce energy use.

Compounding the problem, the authorizing statutes for some programs require that firms increase their electrical consumption. This works against conservation, because the program goals are expressly to serve new electrical demand. In some cases, removal from a program is required for failure to maintain levels of power utilization. For example, the PFJ statute reads:

"Except for allocations subject to subdivision (g) of this section and section one hundred eighty-five of this article [which gives the requirements for job retention allocations], each allocation of economic development power recommended by the board shall be to serve new electrical demand at facilities at which new jobs are created. Such terms and conditions

shall include reasonable provisions providing for the partial or complete withdrawal of the economic development power in the event the recipient fails to maintain mutually agreed upon levels of employment and power utilization." [Emphasis added]

Another problem with NYPA's programs is that they are not conditioned on more efficient energy use by the firms receiving benefits. Firms that are inefficient in their power use are weighted equally in selection to those that may be highly efficient.

To begin to address this issue, temporary provisions were included in the most recent program renewal bill, which became law on July 11, 2009 and extends the program through May 15, 2010.³² The law requires that a representative sample of the participating firms undergo energy audits and that NYPA issue a report on the findings from those audits on February 28, 2010.³³

International studies show the importance of aligning energy efficiency goals with power subsidies. The United Nations Environment Programme Division of Technology, Industry and Economics released a report this year, *Reforming Energy Subsidies: Opportunities to Contribute to the Climate Change Agenda*, concluding that subsidies that operate by "lowering end-use prices" as Power for Jobs and the other programs do, "can lead to higher energy use and reduce incentives to conserve or use energy more efficiently."³⁴ It recommends that "Energy-subsidy programmes should always be designed in a way that does not undermine incentives for producers and suppliers to provide a service efficiently, nor for consumers to use energy efficiently."³⁵

Problem #2: NYPA's programs are not connected to strategic economic development goals.

To work effectively, economic development tools need to support a unified strategy. If efforts to address high power costs are not made strategically and in concert with efforts to lower other barriers in New York's business environment, then the power subsidies are an expensive and wasted opportunity to leverage a valuable resource for greater return. Economic development goals should include retention and growth of jobs with significant income potential. Decisions among investments should place a high priority on attracting upand-coming industries; selection standards should specify an expected level of return on investment. Investments in some manufacturing activities, local service industries such as retailing, medical care and residential consumers generally yield low returns.

In this context, the legacy arrangements in the Replacement, Expansion, and Preservation Power programs are particularly troubling. These subsidies have been described as "some of the least-expensive electricity in the nation." They provide generous benefits to a small number of firms. As Thomas A. Kucharski, President of Buffalo Niagara Enterprises, recently noted, the criteria for the Replacement and Expansion Power programs have not been

updated since the 1950s and are "designed for the manufacturing equation the way it was a couple of decades ago, when it was more job-intensive than investment-intensive."³⁷

Retaining large manufacturing firms is an important economic development goal, and for some energy-intensive firms power costs will be a major consideration in the location decision. In general, manufacturing firms in upstate New York pay higher wages than the average among other industries in those regions,³⁸ and the firms are important to the health of their communities. However, the difficulty with these investments is that the manufacturing sector in New York is unlikely to grow. As inexpensive labor and globalization trends propel the manufacturing base overseas, it has been harder for New York to compete for those jobs. While manufacturing represented 20 percent of the State's total employment in 1980, it is only 6 percent now. In recognition of this difficulty, NYPA has indicated that "Low-cost power tends to preserve the old industrial base rather than attracting new high-tech industries to the region."³⁹

Yet in NYPA's major programs, manufacturing firms are the majority of the beneficiaries, receiving 61 percent of the power available. (See Table 4.) Due partly to the dominance of manufacturing among the legacy beneficiaries, these firms receive more than 1.1 million kilowatts in electrical capacity that they may tap in exchange for the promise of maintaining 78,283 jobs in New York. This equals 14.1 kilowatts of electrical capacity per job committed, a ratio nearly three times greater than among high-tech sector firms. This represents an estimated per-job cost of \$4,650.⁴⁰ The difference in part reflects the large allocation of 478 megawatts to Alcoa through the Preservation Power program. Even without Alcoa, however, manufacturing firms receive a per-job-committed allocation of 8.15 kilowatts, nearly twice the average across all programs and 150 percent of the average among high-tech firms.

The emphasis on manufacturing is compounded by the fact that many of these firms benefit from more than one program. When the separate allocations are combined by firm, it becomes clear that a limited set of firms are receiving very significant discounts. A tally of the allocations to the top 20 beneficiaries shows that these firms, 15 of which are manufacturers, are allocated up to 610,415 kilowatts of subsidized power capacity, about a third of the total for all of NYPA's programs. (See Table 5.) There is no clear justification for using so much of the subsidy to support manufacturing concerns, either as part of a retention strategy or as justified by the benefits generated by these firms.

Table 4
NYPA Economic Development Program
Power Allocations by Industry, 2007*

	Busine	esses	Kilowatts Allocated		Jobs Cor		
Industry	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Kilowatts Per Job
Manufacturing	296	39.1%	1,105,110	61.2%	78,283	19.0%	14.1
High Tech**	141	18.6%	311,734	17.3%	57,291	13.9%	5.4
Banking/Financial Services	20	2.6%	98,200	5.4%	46,184	11.2%	2.1
Other Services***	52	6.9%	91,778	5. 1%	33,217	8.1%	2.8
Food Related	106	14.0%	84,694	4.7%	27,214	6.6%	3.1
Health Services	51	6.7%	56,805	3.1%	116,294	28.3%	0.5
Cultural	40	5.3%	26,415	1.5%	14,973	3.6%	1.8
Education	18	2.4%	16,090	0.9%	26,017	6.3%	0.6
Retail	11	1.5%	8,829	0.5%	4,418	1.1%	2.0
Wholesale	10	1.3%	3,695	0.2%	2,974	0.7%	1.2
Social Services	12	1.6%	3,470	0.2%	4,349	1.1%	0.8
Total	757	100%	1,806,820	100%	411,214	100%	4.4

Notes: * This includes Power for Jobs, Economic Development Power, Replacement Power, Expansion Power, High Load Factor Power, and Municipal Development Agency Power; the World Trade Center Recovery Power and Industrial Economic Development Power programs are not included in the total. Detailed data on the firms that participate in these programs are not available. For the World Trade Center program there are no contractual job commitments required, and Industrial Economic Development Power is turned over directly to local utilities. However, these programs comprise a small fraction, 5.7 percent, are the total discount power available.

Source: New York State Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008.

^{**}Firms that manufacture high-tech equipment or supplies were classified as high tech.

^{***}Professional Services/Business Solutions; Warehousing; Printing/Engraving; Recycling/Waste Management; Information Services; Personal Services; Transportation

Table 5 NYPA Economic Development Programs Participation in Multiple Programs for the Top Twenty Beneficiaries, 2007*

Business	Location	KW Allocated	Jobs Committed	KW per Job	Program
Occidental Chemical Corporation	Niagara Falls	94,700	468	202.4	REP/EXP
Olin Corporations Chlor-Alkali Products	Niagara Falls	79,450	160	496.6	REP
Praxair Inc. ¹	Niagara Falls/Tonawanda	52,800	2,322	22.7	REP/EXP
E. I. du Pont de nemours & Co., Inc.	Niagara Falls/Buffalo	39,765	1,530	26.0	REP/EXP
International Steel Group (ISG)	Lackawanna	35,400	700	50.6	REP/EXP
General Motors Corporation	Buffalo/Massena	31,425	6,652	4.7	EXP/EDP/REP
BOC Gases - Div. of BOC Group ²	Buffalo	29,500	121	243.8	EXP/HGLD
J.P. Morgan/Chase	Brooklyn/Lake Success/Uniondale	25,995	4,182	6.2	EDP/PFJ
Delphi Automotive Systems ³	Lockport/Amherst	25,950	5,596	4.6	EXP/REP/PFJ
Endicott Interconnect Technologies	Endicott	23,500	8,414	2.8	EDP/PFJ
Citigroup, Inc. ⁴	New York/Amherst	22,400	5,500	4.1	PFJ/HGLD/REP
International Business Machines ⁵	Yorktown Heights/Rochester /Poughkeepsie/White Plains	20,720	5,812	3.6	EDP/PFJ
Visy Paper	Staten Island	20,500	140	146.4	MUN NYC
Encore Paper dba SCA Tissue	South Glen Falls	20,000	543	36.8	HGLD
Reynolds Metal Company	Massena	17,000	459	37.0	HGLD
OAB Holdings, Inc.	Buffalo	16,560	1,252	13.2	REP/PFJ
American Axle & Manufacturing ⁶	Tonawanda/Buffalo/Cheektowaga	14,250	4,935	2.9	REP/EXP
Norampac Industries, Inc. ⁷	Lancaster/Niagara Falls	13,800	390	35.4	PFJ/EXP/HGLD
Ford Motor Company	Buffalo	13,700	3,234	4.2	EXP/PFJ
Air Products and Chemicals, Inc. ⁸	Glenmont	13,000	0	N/A	HGLD
Total		610,415	52,410	11.6	

Source: New York Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008.

^{*} This includes Power for Jobs, Economic Development Power, Replacement Power, Expansion Power, High Load Factor Power, and Municipal Development Agency Power

^{**}Total KW allocated, to all 757 businesses, was 1,806,820; total jobs committed were 411,214

¹ Received four separate allocations: one of each replacement and expansion power at each location

² Received three separate allocations: one under expansion power and two under high load

³ Received four separate allocations: expansion power in Lockport and Amherst and both replacemnt power and power for jobs in Amherst

⁴ Received three separate allocations: power for jobs and high load in New York and replacement power in Amherst

⁵ Received four separate allocations: economic development power in Yorktown Heights and power for jobs in Rochester, Poughkeepsie, and White Plains

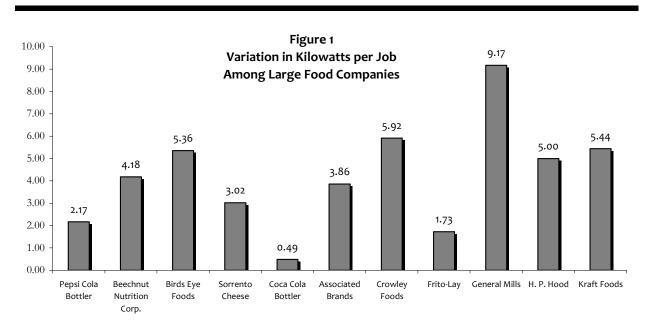
⁶ Received five separate allocations: expansion power in all three cities and replacement power in Tonawanda and Buffalo

 $^{^7}$ Received three separate allocations: power for jobs in Lancaster and both expansion power and high load in Niagara Falls

⁸ Received two separate high load factor allocations

The effectiveness in terms of economic development of giving subsidized power to hospitals and cultural institutions is also questionable. The PFJ program gives significant benefits to several such institutions. In New York City and on Long Island, for example, the industry receiving the largest power allocation under PFJ is health care, representing 37 percent and 39 percent of the total power allocated in New York City and Long Island, respectively. The investments in this sector are dominated by larger hospitals; four New York City hospitals are among the top 20 recipients under PFJ, and each receives the maximum allocation of 5,000 kilowatts. A cultural institution in New York City, Lincoln Center for the Performing Arts, also is among the top 20 recipients with an allocation of 3,000 kilowatts. Hospitals and cultural institutions play an important role in their communities and may be worthy of public support, but from an economic development perspective they represent jobs and investments that are highly unlikely to relocate; power subsidies are not likely to spur their job creation or growth.

Ineffective use of the programs is also evident in the inconsistent manner in which the power subsidies are awarded to firms. The subsidy, measured in terms of kilowatts per job committed, varies widely. For all PFJ participants the figure ranges from 0.10 to 21.43 with a mean of 3.14 and a median of 2.50.⁴³ In dollars terms, the average subsidy among PFJ participants is estimated to equal a relatively low \$247 per job.⁴⁴ The value is driven lower by the high number of jobs committed by the PFJ participants, a metric which may not be used or evaluated appropriately in the program.⁴⁵ Even more indicative of inconsistent practices is the considerable variation among firms within the same industry. For example, Figure 1 displays the kilowatts per job for 11 large food companies. In the PFJ program the subsidy ranges from 0.49 kilowatts per job for a Coca Cola bottler to 9.17 kilowatts per job for General Mills.



 $Source: New York State\ Power\ Authority,\ 2007\ Report\ to\ the\ Governor\ and\ Legislative\ Leaders\ on\ Power\ Programs\ for\ Economic\ Development\ ,\ April\ 2008.$

Some variation in the subsidy per job may make sense. But the lack of publicly disclosed standards or metrics to judge the level of return associated with each subsidy makes it impossible to discern a rational, systematic basis for the decisions to grant particular subsidies.

Finally, in most cases the awards to firms are made and administered in an uncoordinated manner. The nine programs each have their own application process and administrative apparatus. The lack of coordination makes it difficult for businesses seeking assistance to navigate the system and more likely that the same businesses will receive benefits year after year. Few of the largest beneficiaries have left the programs since they began, and admission of new firms is limited.⁴⁶ Only a small amount of unallocated capacity is available for new firms.

Coordination is important because when power subsidies are paired with other types of subsidies during the negotiation process with firms that State leaders seek to attract, the economic returns to taxpayers can be leveraged more effectively. For example, Empire State Development and NYPA worked together recently to use power subsidies and other incentives to successfully address firm location issues. Their collaboration brought about several beneficial agreements for the State.⁴⁷

Problem #3: NYPA's disclosure of the nature and cost of its economic development programs is insufficient.

NYPA's economic development programs are not transparent. While NYPA's annual report to the Governor and legislative leaders describes the size of the programs in terms of the power capacity they make available to firms, and provides business recipient detail (for most programs), the capacity measures used for reporting shed little light on the actual cost of the programs. Usage in kilowatt hours and cost information is not reported, and although the CBC has estimated the cost of the programs in this report, only NYPA has all the information necessary to calculate costs and foregone revenues more accurately.

In 2006, Governor Pataki assembled a *Temporary Commission on the Future of New York State Power Programs for Economic Development* to report on NYPA's economic development programs. One of the main recommendations of the Commission was to make information about these programs publicly available; the final report states: "Information about public power programs and specific allocations made from the programs should be made available to the public." The Commission recommended that program participants be listed on a state-administered website available to the public and containing the following information: 1) the value of the power received (compared to purchase through the businesses' local utility) or the value of the direct subsidy; 2) the economic benefits to the state by the business, consistent with the new selection criteria recommended by the

Commission. The new criteria would include 1) payroll; 2) investment; 3) net economic impact to New York State; and 4) significance to the local/regional economy.

The Commission also addressed the distinctions among the nine programs, saying they should be "to the greatest extent possible invisible to applicants for assistance." It recommended one common application and one set of selection criteria for all the programs. In addition, the Commission recommended a combined administration to be managed jointly by Empire State Development and NYPA, with the EDPAB to be chaired by the head of Empire State Development.

To date there has been minimal implementation of the Commission's recommendations. In past years and again in 2009, bills have been introduced in the Legislature to require economic development program performance plans and evaluations, and to establish a private industry review council. Although these bills passed in 2009 they were subsequently vetoed by Governor Paterson.⁵⁰ However, the program renewal that was signed by the Governor on July 11, 2009 did require NYPA to provide new information to the Legislature, including a performance review of all of the program beneficiaries to date. This information, if publicly disclosed, would help to shed some additional light on the programs in the short run.

RECOMMENDATIONS

NYPA's economic development programs should be restructured in accordance with four guidelines:

1. Phase out current programs. No new legislation should be passed to reauthorize the programs, and current contracts should be allowed to expire. Since the Alcoa contract was recently renewed and will not expire until 2043, the terms of that subsidy may warrant reexamination before the expiration date. Firms whose contracts are expiring should be allowed to apply for a case-by-case review to determine if a more gradual phase-out should be applied to the withdrawal of current subsidies.

As the programs are phased out, they should be subject to greater disclosure requirements. The transparency and accountability measures recommended by the 2006 Commission should be implemented, as a first step toward better overall reporting on all economic development programs. In addition, the information to be produced by NYPA as part of the most recent annual renewal of the program should be made public.

- 2. Include assistance for firms with high energy costs as part of a comprehensive economic development strategy administered by Empire State Development. This strategy should account for all the costs and benefits of a particular incentive package together. Guidelines for deciding which firms to assist should consider the types of jobs and sectors of the economy New York would benefit from most and could best attract, and whether high power costs are a location factor. High-tech, clean-tech, and other high-value-added industries likely would be a priority. Ease of application and simplicity for businesses should be the goal in the design of a single application.
- 3. Sell power no longer used for economic development at market rates. The estimates in this report suggest that this would generate between \$479 million and \$640 million in additional revenue and lower costs for NYPA, which would increase its operating surplus substantially. Some of the funds should be allocated to economic development programs operated by the State's principal economic development agency, Empire State Development. This would ensure the funds remain devoted to economic development goals, and would—under a revitalized strategic plan and the proper performance metrics—enhance their effectiveness. A new grant program administered by ESD to assist firms that find power costs an especially difficult operating constraint could be funded in this way. Decision-making authority could also be shared with NYPA, to achieve better permanent collaboration between the two authorities, but an ESD-administered strategic plan should serve as the ultimate

guide to any joint effort. Firm preference for power contracts rather than direct grants should also be taken into consideration.

Another option is to allow NYPA to retain the new earnings and invest the funds in energy infrastructure improvements it otherwise could not afford. A modern, more efficient, energy grid would provide broad benefits in the form of a more reliable system to virtually all businesses and residents in the state. The 1,400 miles of transmission lines that NYPA owns form the backbone of New York's electrical grid, and proper investments in this key infrastructure are critical.

The CBC recommends that the mix of uses for the new revenues be the subject of an informed policy debate. Each use has its merits, and more public discussion and legislative consideration can help achieve a balanced approach.

4. Link energy conservation and economic development goals and programs. Firms that receive benefits specifically to alleviate the high cost of their power should be required to submit to energy audits, and to comply with best practices for energy efficiency available from NYSERDA. New York Energy \$mart, the program that NYSERDA finances and operates, could extend additional low-interest loans to private firms to make their facilities more energy-efficient. If requiring firms to secure financing proves problematic, NYPA's existing beneficiary-funded energy-efficiency financing programs could be used more broadly.

These guidelines present many challenges for the State's political leaders, who are often inclined to protect the status quo rather than forge a new path, but they should pursue an overhaul of NYPA's economic development programs. New York State cannot afford to maintain the status quo in a business climate that is more competitive than ever.

ENDNOTES

- ¹ New York State Power Authority, 2007 New York Power Authority Financial Report, February 29, 2008, page 52.
- ² Historical material in this section from www.nypa.gov/about/history1.htm, accessed May 4, 2009
- ³ Charles Poletti is the only person to serve both as governor of New York and a NYPA Trustee.
- ⁴ Flynn was chairman of NYPA at the time.
- ⁵ New York State Power Authority, 2008 New York Power Authority Financial Report, February 26, 2009, page 22.
- ⁶ New York State Energy Research and Development Authority, Energy in the Innovation Economy: 2007-08 Annual Report, p. 25-26. Accessed on January 30, 2009 at

http://www.nyserda.org/publications/NYSERDAo8 report.pdf

- ⁷ Chapter 772 of the Laws of 1931.
- ⁸ Based on billing rates provided in the New York State Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008, available at http://www.nypa.gov/services/economicdev/2007 Annual Report to Gov.pdf, accessed January 20, 2009. Average statewide location based marginal price (LBMP) on the day-ahead zonal market from April 1, 2007 to March 31, 2008 equaled 6.7 cents per kilowatt-hour according to the New York State Independent System Operator.
- ⁹ See Table 2.
- ¹⁰ See Table 2.
- ¹¹ The communities in which the hydro generators are located also receive payments for the enhancement of local amenities or power allocations for their own local economic development programs. For example, when the Alcoa subsidy was renewed in 2009 an economic development fund of \$10 million was funded for local officials in the North Country.
- ¹² Environmental Advocates, \$aving Green: Addressing New York's Fiscal Crisis and Protecting the Environment, November 2008, p. 8.
- ¹³ Alcoa, News Release: Alcoa, NY Governor Paterson, and NYPA Finalize Power Contract for Massena Operations, January 13, 2009.
- ¹⁴ For a list of the 47 municipal electric systems see: The Commission on the Future of New York State Power Programs for Economic Development, New York Power Authority Electricity for Economic Development, Program Summary, August 2006.
- ¹⁵ New York State Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008, accessed January 20, 2009, p. 3.
 ¹⁶ Ibid.
- ¹⁷ The Commission on the Future of New York State Power Programs for Economic Development, New York Power Authority Electricity for Economic Development, Program Summary, August 2006.
- ¹⁸ Section 185 of the New York State Economic Development Laws
- ¹⁹ In addition to the statutory criteria, allocation of High Load Factor Power is governed by the rules and regulations of the New York Power Authority (21 NYCRR 460.5.). Section 460.5 states that each application for an industrial power allocation shall be evaluated according to the following criteria: (1) compliance with any statutory, license or contractual criteria applicable to the particular type of power available; (2) subject to paragraph (1) of this subdivision, the amount of power requested shall be a minimum of 400 kW or, in the case of an allocation by a public body, such other lower minimum quantity as the authority may designate upon request by a public body; (3) the ratios of the number of permanent jobs to be created and of the number of permanent jobs to be retained to the amount of power requested; 4) the number of jobs (including construction jobs) to be created and the number of jobs to be retained as a result of a power allocation; (5) the types of jobs created, as measured by wage and benefit levels, security and stability of employment; (6) the effect the allocation will have on the business's existing employment at the location for which power has been requested; (7) anticipated additional payroll; (8) the business's willingness to satisfy affirmative action goals

and to make jobs available to economically disadvantaged persons consistent with the authority's standard draft contract provision attached hereto as subdivision (c) of this section; (9) the impact on the operations of any other facilities of the business or on other businesses within the State of New York as a result of the allocation sought and the resulting effect on employment and relative competitive positions; (10) the cost of electricity as a percentage of cost of product(s) produced at the facility which will utilize the power; (11) the business's long-term commitment to New York State as evidenced by current or planned capital investment in business facilities in the State.

- ²⁰ The Commission of the Future of New York State Power Programs for Economic Development, Appendix 7b, Comparison on Average Residential Customer Bills With and Without NYPA Hydro Allotment, August 2006.
 ²¹ Ibid.
- The estimate relies on: 1) billing rates by program, as reported in NYPA's 2007 annual report; and 2) the average clearing price for energy reported by NYISO. To compute the amount of energy businesses in the program would consume in a year, a range of "load" factors was used. A load factor describes what percentage of the time a business is operating at its peak demand. The maximum load factor is 1.00 and would be used for a factory that operated 24 hours a day, 7 days a week at a continuous level. At the other end of the spectrum a low load factor of 0.27 would describe a business that is open 9 hours a day, 5 days a week. Load factors used in the CBC estimate were identified based on the industry classifications of the users in each program.
- ²³ Another factor that affects the potential sale of hydro power is water levels, which can alter capacity by up to 25 percent depending on the volume of water available to fuel generation. That variation could not be considered in this analysis.
- ²⁴ According to NYPA's 2007 Annual Report 48 megawatts was unallocated in the Replacement Power Program, and 13 megawatts were unallocated in the Expansion Power Program.
- ²⁵ New York State Power Authority, 2008 New York Power Authority Financial Report, February 26, 2009, page 45.
- ²⁶ New York State Division of Budget, Annual Tax Expenditure Report for 2009-10, p.121.
- ²⁷ The per kilowatt price reported by NYISO is likely higher than the wholesale price that businesses actually pay. This is because the prices in the day-ahead markets reported by NYISO, which are used in the CBC cost model, meet only about half of the demand. The other half of the demand is met by businesses that procure power by entering into long-term contracts. The prices paid under contracts are not disclosed by NYISO and could not be factored into the model but industry experts report that they are typically lower because of their long-term nature.
- ²⁸ The Business Council of New York State, *Priority Issue: Power for Jobs*, 2005 *Legislative Agenda*, Accessed at www.bcnys.org/priorityissues/2005vfjpfj.htm on January 20, 2009. To illustrate, without the subsidies average industrial prices would increase to 11.68 cents per kilowatt hour. At that price New York's rank among the 50 states would be eighth and above New Jersey's.
- ²⁹ According to the New York State Department of Labor, there were 1,782 manufacturing firms in Western New York in 2007. The CBC counted 148 subsidized firms in the Western region in NYPA's 2007 data. The North Country has 351 manufacturing firms and the CBC counted 12 subsidized firms in the region. Combining the two regions, 7.5 percent receive subsidies; 92.5 percent do not.
- ³⁰ CBC staff analysis of typical bills provided by the New York Independent System Operator.
- ³¹ For example, in \$aving Green: Addressing New York State's Fiscal Crisis and Protecting the Environment, Environmental Advocates of New York concludes: "In order the reduce the harmful effects of air pollution that is changing the climate, as well as acid raid and mercury contamination, New York annually invests hundreds of millions of dollars to reduce overall electricity demand. At the very same time, a host of statutorily mandated New York Power Authority programs are encouraging energy consumption in the name of economic development. Providing cheap energy discourages customers from conserving energy."
- ³² Chapter 217 of the Laws of 2009.
- ³³ Also included was a requirement that NYPA, in collaboration with the Department of Economic Development, review the performance of all program beneficiaries to date, and provide reports that include

the information necessary to assess the existing programs and the resources needed going forward. These requirements will provide additional information which the Legislature can use to deliberate over the future of the program longer term.

- ³⁴United Nations Environment Programme, Division of Technology, Industry and Economics, Reforming Energy Subsidies: Opportunities to Contribute to the Climate Change Agenda Press Release, accessed at http://www.unep.org/pdf/PressReleases/Reforming_Energy_Subsidies2.pdf

 ³⁵ Ibid., p. 21.
- ³⁶ Report by Center for Developmental Analysis, completed at the request of the New York Power Authority, 2001. Cited in James Heaney, Power Failure, "Part 1: Region Home to Cheap Power, High Bills and Huge Corporate Subsidies" *Buffalo News*, February 7, 2008.

 ³⁷ *Ibid*.
- ³⁸ Data from the second quarter of 2008. United States Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages show that in the upstate regions of New York, the average manufacturing job pays \$53,242, which is 36.8 percent higher than the region's average annual wage.

 ³⁹ James Heaney, Power Failure, "Part 2: Niagara Power Plant a Huge Moneymaker, But Region Sees Little of the Payoff," Buffalo News, February 7, 2008.
- ⁴⁰ In one kilowatt of capacity there are 8,760 kilowatt hours of use. Thus 14.1 kilowatts-per-job ratio translates into 123,516 kilowatt hours of usage. At an assumed load factor of 0.8, and a per-kilowatt-hour sale price of 6.7 cents, the calculated value is \$4,650 per job. Since NYPA does receive some revenue from beneficiaries the net value of the subsidy is calculated by assuming payment of 2 cents per kilowatt hour that NYPA receives from most of its manufacturing beneficiaries.
- ⁴¹ Memorial Sloan Kettering Cancer Center, New York Presbyterian Hospital, New York University Medical Center, and Beth Israel Medical Center received 17,800 kilowatts of discount power in 2007. Data are from the New York State Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008, accessed January 20, 2009.
- 42 Ibid.
- ⁴³ Data are from the New York State Power Authority, 2007 Report to the Governor and Legislative Leaders on Power Programs for Economic Development, April 2008, accessed January 20, 2009.
- ⁴⁴ The reported cost of Power for Jobs is \$62 million, and NYPA's rates for beneficiaries appear nearly identical to market rates. Costs of \$42 million divided by job commitments totaling 250,715 yields the per-job subsidy of \$247 per job.
- ⁴⁵ For example, a CBC sample of the job commitments made by eleven of the larger health care institutions located in New York City showed that nine had committed 75 percent or more of their total payroll positions to the program.
- ⁴⁶ A CBC staff analysis of the current beneficiaries of Power for Jobs allocations showed that 50 percent of PFJ recipients with the largest awards received their initial allocation in 1998 and 1999. Of the top 20 power recipients across all programs, 10 received awards made in the 1950s for Replacement, Expansion, and Preservation Power. Alcoa's allotment of 478 megawatts, the largest of any firm, was first awarded in 1955.
- ⁴⁷ Several examples of collaborative efforts including Brookhaven National Lab and SpectraWatt, were cited on page 11 of Bold Steps to the New Economy: A Jobs Plan for the People of New York, a speech delivered by Governor David A. Paterson on June 8, 2009.
- ⁴⁸ Gargano, Charles A., Chairman, A Report to Governor George E. Pataki and the Legislature from the Temporary Commission on the Future of New York State Power Programs for Economic Development, December 1, 2006, p. 2.
- ⁴⁹ Ibid., p. 4.
- ⁵⁰ The bills introduced in the 2009 session are S4437 and A2854. These are available at http://assembly.state.ny.us/leg/?bn=S04437, and were accessed on May 13, 2009. On August 11, 2009 Governor Paterson vetoed S4437/A2854.