STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard

Case 07-M-0548

RESPONSES OF THE NEW YORK POWER AUTHORITY TO THE DEPARTMENT OF PUBLIC SERVICE STAFF'S QUESTIONS TO THE PARTIES

Introduction

The New York Power Authority ("NYPA") hereby submits its responses to the Department of Public Service Staff's Questions to the Parties, dated June 13, 2007 ("Staff Questions"). While NYPA is not subject to Public Service Commission ("Commission") jurisdiction in this matter[1], NYPA supports the Commission's effort to develop and implement an energy efficiency portfolio standard ("EPS") designed to reduce New York's electricity usage by 15% from expected levels in 2015.

Since the late 1980s NYPA has been deeply involved in advancing energy efficiency measures in New York State. NYPA has invested over $1 billion toward this end, including financing and implementing energy efficiency projects in over 2,500 state, municipal and other public buildings and facilities throughout New York State (involving, for example, installation of high efficiency lighting, motors, and HVAC equipment and energy management systems). These projects have reduced electricity

[1] See, e.g., Public Authorities Law, §1014.

consumption in the state by 890,000 MWh annually, avoided greenhouse gas emissions of more than 750,000 tons annually, reduced oil consumption by 1.8 million barrels per year, and produced electric bill savings of nearly $100 million annually.

NYPA is pleased to be participating in this proceeding and its responses to specific Staff Questions follow.

GOALS

Staff Question 1

What approaches hold the greatest potential to contribute to New York achieving the overall target of 15% electricity consumption reduction by 2015? Are there any energy consuming sectors and markets that are currently underserved by the existing available portfolio of energy efficiency programs and services in New York State? How should those deficiencies be addressed in implementation initiatives?

NYPA Response

NYPA has found that direct implementation programs that include energy audits, design services, construction, and project management services offered in a single turn key delivery mechanism are very effective in facilitating energy efficiency projects for the public sector. This approach also has included providing low cost financing of the project, which is paid back through customer energy savings, and the ability to offer a full complement of end-use efficiency measures. This approach has allowed the customer to address all of its energy needs through one comprehensive project.

Energy efficiency for commercial and business customers is more of a challenge as these customers are often seeking projects with less than a four year payback. Low cost financing, incentives and/or preliminary audit opportunities may provide more

options for these types of customers. Customer concerns with respect to proprietary processes should also be considered when designing energy efficiency opportunities for this market.

Staff Question 5

What other national, state, and municipal government and private initiatives would help New York meet the objectives of the EPS Proceeding? In what ways can we leverage the impact of these initiatives to help us meet the objectives of the EPS Proceeding? How should the impact of these initiatives be counted and measured?

NYPA Response

In recent years, NYPA has committed to provide more than $100 million annually in financing for its energy efficiency programs serving its electric customers and other eligible statewide participants. NYPA has been able to leverage these funds by participating in NYSERDA and utility incentive/rebate programs including NYSERDA's FlexTech/Technical Assistance program, the Consolidated Edison Target Zone rebate program and the Long Island Power Authority rebate program. NYPA's programs should also facilitate achievement of the energy efficiency objectives set forth in New York City's PlaNYC 2030. These and other available programs should continue to have a significant impact in reducing energy usage in New York State. In terms of measuring and reporting the programs' impacts, NYPA believes that standard protocols should be established.

Finally, in the event Congress enacts energy efficiency portfolio standard legislation, efforts should be made to appropriately harmonize the state and federal programs to achieve the common goal of increased energy efficiency.

PROGRAM ELEMENTS

Staff Question 7

What role should building codes and appliance standards play in reaching New York's energy efficiency goals and should such standards vary by geographical area (i.e., metropolitan New York City versus upstate)?

NYPA Response

NYPA supports the further strengthening of building codes and appliance efficiency standards to achieve greater energy efficiency in the state. In this regard, NYSERDA recently adopted minimum energy efficiency standards for various energy-consuming products purchased by and for the State and its agencies (see 21 NYCRR Part 506). These standards address appliances and equipment such as fluorescent lamp ballasts, air conditioners and heat pumps, electric motors, boilers, and the like and should prove valuable in reaching New York's energy efficiency goals.

In addition to these types of appliances and equipment, NYPA has been involved in other equipment upgrades where significant energy savings can be achieved. One example is the replacement of standard electric distribution transformers with energy efficient models. The efficiency range of standard distribution transformers used in industrial and commercial applications starts at 93.8% for small-sized transformers and increases to 98.7% for large size transformers. The energy efficient distribution transformers utilize improved core materials that cause less heat and loss. Their efficiency ranges from 97% to 99%. The 1%-3% increase in efficiency is not negligible as most distribution transformers are energized 24 hours per day, 365 days per year. Thus, small improvements in transformer efficiency can yield appreciable energy and dollar savings.

Staff Question 10

What programmatic and outreach efforts, within and beyond the current scope of the Commission's jurisdiction, that have not been generally considered as energy efficiency programs, should be integrated into overall strategies and plans to reach energy usage reduction targets?

NYPA Response

With respect to outreach models for consideration, NYPA has established a "Power to Schools" program which targets K-12 public and private schools throughout the state. In a single, comprehensive delivery format, the program involves audits to identify energy-savings potential; low cost financing, and installation of energy efficiency measures such as lighting upgrades, high efficiency motors for HVAC equipment, lighting occupancy sensors, and energy management systems. Outreach activities (e.g., forums, meetings with school boards and officials, advertising) are directed to the target market segment.

With respect to other programmatic and outreach efforts, Staff and the Commission may wish to consider secondary sources of achieving energy efficiency savings, particularly water conservation measures. It has been estimated that 4% of the nation's electrical use is for pumping and treating water and wastewater processing.

Another initiative that should be considered is to promote the U.S. Green Building Council's Leadership in Energy and Environmental Design ("LEED") rating system. LEED has been established to provide a framework for assessing building performance (both new and existing buildings) and meeting environmental sustainability goals. Although the focus of LEED is on environmental performance, the program prominently includes energy efficiency and water conservation measures both of which can

significantly advance the energy efficiency goals of this proceeding.[2] In fact, New York City's Local Law 86 (effective January 1, 2007) requires that most new construction or major renovation projects of municipal buildings and facilities comply with LEED standards.

Staff Question 12

What role should a) distributed generation, b) demand response, and c) combined heat and power play in reaching New York's energy efficiency goals?

NYPA Response

NYPA believes these resources should be able to play an increasingly larger role in helping New York State reach its energy efficiency objectives. In this regard, NYPA has been heavily involved in deploying distributed generation, having installed 25 photovoltaic (PV) projects at public facilities across the state; numerous fuel cells in the New York City metropolitan area, including 9 powered by the waste gas produced at wastewater treatment plants and 4 powered by natural gas; and 2 energy efficient microturbines (powered by natural gas in one instance and waste gas from a wastewater treatment plant in the other) which generate heat and power for use. NYPA also is currently demonstrating a unique battery energy storage system at the Metropolitan Transportation Authority (MTA) Long Island Bus Depot that will allow natural gas, used as fuel for buses, to be compressed during off-peak periods rather than on-peak when electricity costs are higher. This project combines a new, more efficient technology (sodium sulfur) with cleaner-burning natural gas as the bus fuel.

[2] NYPA's administrative office building in White Plains recently received the LEED Gold-Existing Building designation.

IMPLEMENTATION

Staff Question 15

What role should key stakeholders play in an enhanced energy efficiency effort (e.g., Staff, Departments of State and Environmental Conservation, utilities, NYSERDA, Division of Housing and Community Renewal, NYPA, LIPA, NYISO and energy service companies), and how should they coordinate their efforts?

NYPA Response

NYPA has been a significant provider of energy efficiency services for public buildings across New York State for many years and plans to continue doing so in the future. In this role, NYPA has successfully partnered with NYSERDA and other state agencies and authorities to facilitate achievement of state energy efficiency objectives. In a Report to the Governor and Legislature, dated January 30, 2007, the Conservation Coordination Task Force (which was established by legislation enacted in 2006) found that "the agencies and authorities currently coordinate and work together very effectively and efficiently to deliver the energy programs." The Task Force recommended that the "process of coordination be continued and formalized" and that "protocols for tracking budgets and energy savings" be standardized. NYPA believes both of these recommendations have merit.

Staff Question 18

What are the best methods for ensuring that low income customers have access to efficiency programs?

NYPA Response

Although NYPA does not have residential customers, it worked with one of its largest customers, the New York City Housing Authority ("NYCHA"), to replace 186,000 older refrigerators used in public housing buildings with high efficiency units

that typically consume 50% less energy. The replacement refrigerator installations were completed in 2004 and NYCHA is paying for the cost of the program through the savings realized on its electric bills. While the public housing buildings involved in that program are master-metered, this model could also be considered for other types of public housing where each individual dwelling unit is separately metered and billed such that the residents would directly benefit from the efficiency savings achieved.

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Respectfully Submitted,

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cc: List Serve