STATE OF NEW YORK PUBLIC SERVICE COMMISSION

CASE 03-E-0188 - Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard

COMMENTS OF THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

SAPA 03-E-0188SA19

The New York State Energy Research and Development Authority ("NYSERDA") offers these comments for the Commission's consideration in response to its October 1, 2008 Notice under the State Administrative Procedure Act (SAPA 03-E-0188SA19) regarding the Renewable Portfolio Standard ("RPS") program.

NYSERDA has served as central administrator of the RPS program since its inception in 2004. In accordance with the Commission's Order establishing the RPS program, and on the basis of a scope of work developed in cooperation with the Department of Public Service, NYSERDA competitively retained two consultants, KEMA and Summit Blue, to conduct an evaluation of the program for consideration in 2009. While the overall evaluation is not scheduled to be complete and publicly available until early next year, certain highly relevant elements of program assessment have been completed and are filed herewith for consideration in this proceeding. Specifically, the RPS program evaluation consultants have concluded analyses on the impact the RPS has had on renewable resource development, impacts of program design features on the price paid for RPS Attributes, and the macroeconomic benefits of the RPS program to New York. Attached hereto as Exhibits B, C and D respectively, are reports from Summit Blue and KEMA addressing these specific subject areas. Also attached and made part hereof as Exhibit A is the RPS Performance Report that was issued this past September.

Introduction

In accordance with the Commission's directives and in cooperation with Department of Public Service Staff, NYSERDA has designed and implemented the RPS program to

¹ Case 03-E-0188 <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard</u>, "Order Regarding Retail Renewable Portfolio Standard," issued and effective September 24, 2004.

² Exhibit B, Analysis of the Renewable Portfolio Standard's Influence on Large-Scale Renewable Energy Project Development in New York; Exhibit C, Renewable Energy Credit Prices-The Market Signal From The State Renewable Portfolio Standard Program; and Exhibit D, NYSERDA Main Tier Renewable Portfolio Standard Economic Benefits Report.

adhere to three key principles: (1) transparency, (2) competitive and objective project selection, and (3) cost-effective administration. NYSERDA has administered the RPS as a statewide program, without bias as to project location or utility service territory. The three Main Tier solicitations issued to date have been increasingly competitive and successful in stimulating renewable resource development in New York. The structure of the central procurement model, under which NYSERDA purchases rights only to the environmental attributes ("RPS Attributes") created by the generation of electricity by eligible renewable resources, combined with NYSERDA's adherence to its key principles, has allowed the RPS to seamlessly integrate with New York's competitive energy markets.

NYSERDA issued the first competitive Main Tier solicitation in December of 2004. While New York is ranked 15th nationally in developable wind potential, the State now ranks 9th nationally in installed wind capacity. Because of the success of the RPS program, New York has become a national leader in the development of new renewable energy capacity.

We respectfully request that the Commission consider these comments in determining the future of New York's RPS program.

Program Progress

The RPS program has had considerable success since 2004. As is more fully described in Exhibit A,³ as a result of the completion of three competitive Main Tier solicitations, NYSERDA has contracts with thirty new renewable facilities. The total capacity associated with these 30 facilities is approximately 1,340 MW, enough electricity to supply 635,000 average homes. Of the 1,340 MW associated with the RPS, approximately 993 MW is operating or fully constructed and awaiting interconnection.⁴ This includes 958.5 MW of wind, 26 MW of biomass, and 8.9 MW of hydroelectric. This new installed wind capacity of 958.5 MW is almost twenty times the 48 MW that existed just 3 years ago.

Combined, the three competitive Main Tier solicitations conducted through the first half of 2008 resulted in contracts (or pending contracts) for NYSERDA to provide production incentives for approximately 3.5 million MWh per year. This combined contract quantity puts New York at 73% of the 2009 Main Tier target and 34% of the 2013 Main Tier target. For a summary of the financial performance of the RPS program, see Exhibit A, Appendix A.

NYSERDA has also entered contracts with two Maintenance Tier Resources, the Lyonsdale Biomass Plant and the Boralex Biomass Plant. In combination, these contracts will support the retention of approximately 39 MW of valuable in-state biomass capacity and the local economic benefits associated with their continued operation.

³ New York State Renewable Portfolio Standard Performance Report for the Program Period Ending June 2008.

⁴ As of October 31, 2008.

Several program design features have been incorporated into the Main Tier in an effort to support the ultimate goal of transitioning the program to a self-sustaining voluntary market. For example, the Main Tier solicitations have not required contractors to bid the attributes related to the entire output of their facilities, and in the second and third Main Tier solicitations NYSERDA capped bids at 95% of a facility's attributes, leaving 5% available for sales to voluntary markets and other states' RPS compliance markets. These design features were instituted in large part to help satisfy the growing demand from retail energy consumers for renewable energy products, and to allow competitive voluntary marketers to fill that space.

As a result of these key design features, four wind farms are currently under contract to NYSERDA for only a portion of their output; 236 MW of new capacity has been constructed or will be constructed without an RPS contract for the output. It is estimated that this merchant capacity will produce nearly 400,000 MWh each year, which will be available for sales to retail customers in New York or elsewhere. In the second and third Main Tier solicitations NYSERDA structured its contracts to provide flexibility for contractors to suspend deliveries to NYSERDA, in whole or in part, to make sales to the New York voluntary green market. One contractor has inquired about exercising this option for a significant quantity of energy from multiple wind farms. It is anticipated that these suspensions may occur during calendar year 2009, further stimulating the voluntary market.⁵

Four Customer-Sited Tier solicitations have been issued, offering funding support through an open enrollment, first-come, first-served process for photovoltaic (PV), fuel cell, anaerobic gas-to-electric digester technologies (ADG), and small wind installations. Considerable progress toward the targets has been achieved. On the basis of applications in process, pending contracts and operating installations through October 31, 2008, energy production from eligible technologies is expected to approach 64,000 MWh or about 120% of the end-of- year 2009 program target of 52,878 MWh⁶ as specified in the Customer-Sited Tier Operating Plan (see www.dps.state.ny.us/CST_OP_02-12-07.pdf). In the case of photovoltaic (PV) and anaerobic gas-to-electric digester technologies (ADG), expected energy production exceeds the technology-specific end-of year 2009 targets by approximately 50% and 90% respectively. On an installed capacity basis, the Customer Sited Tier program segment is expected to exceed the 2009 target by about 1.7 MW, or 15%.

Program Attribution

While not all of the 1,340 MW of new renewable capacity is under contract with NYSERDA⁷, an assessment completed by Summit Blue has concluded that nearly all

⁵ Should such suspensions occur, NYSERDA will not be obligated to pay for the quantity suspended and the associated contract funds will be made available for future program activities.

⁶ The "Program Total" of 50,733 appearing at Table 2.2 of the Operating Plan is an error.

⁷ as indicated on page 2, some of this capacity is expected to be available for sales to retail customers in New York or elsewhere.

renewable project development and construction in New York over the last few years can be attributed to the RPS program and its the successful implementation. The report finds that the RPS program and its desirable characteristics, such as long term contracts and flexible terms to sell into other markets, has made New York one of the more attractive markets for renewable energy project investment. A compelling indicator of the influence the RPS policy has had on the renewable generation market in New York can be found by comparing the level of development activity in New York to that in other states with substantial wind resources, but no accessible RPS market.

Using wind industry data⁸ on developable wind capacity, New York, with statewide development potential of about 7,100 MW, has realized almost 20% of its developable potential. By contrast, states such as Kansas, Nebraska and Wyoming that have no RPS programs, but development potential 10 to 15 times that of New York, have realized only 1 % of their developable potential.

Another compelling finding is that more renewable generation is being built and more renewable energy is being generated than is being directly supported by the RPS. This speaks to the program's influence on the development of the renewable energy industry in New York. The details of the Summit Blue analysis of program influence on development can be found in Exhibit B.

Prices for RPS Attributes (Renewable Energy Credits or REC)

REC prices under the New York RPS appear to be some of the lowest in the region and have been highly effective at getting a significant amount of resources built. Summit Blue notes in its analyses that the REC pricing data for RPS compliance markets across the region and nation is not always directly comparable because RPS rules and electric markets across the country differ materially. However, recognizing the limitations in data, Summit Blue did assess how New York REC prices stand relative to other states where data was available to reflect on differences across a smaller subset of RPS markets. On the basis of this assessment, the costs of the program, as represented by the price paid for RECs, appear reasonable and compare favorably with costs being paid under other RPS programs in the region given the program design features employed in New York.

Analysis shows that certain features of the RPS that are unique to New York have a strong influence on REC pricing. The availability of long-term contracts appears to have the most favorable effect. The Commission's decision to allow projects to enter into physical bilateral contracts also appears to have had a favorable impact on pricing. The transition to an hourly delivery requirement does not appear to have had any impact on pricing as New York has enjoyed an abundance of in-state program participants and other regional RPS programs serve as an attractive market for their native projects.

Unlike New York, other states in the region adhere to hard targets for RPS compliance (REC purchases) where entities with RPS obligations are made to pay compliance payments, on an annual basis, if they cannot meet their RPS targets. This has increased

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⁸ Source: American Wind Energy Association.

the cost of compliance (REC pricing) in such states, but has not resulted in a correlated increase in the amount of installed renewable capacity in those states. By way of example, such compliance payments have exceeded \$50/MWh in Massachusetts and have been responsible for a significant share of total program costs over the early years of program implementation. A comprehensive evaluation of REC pricing can be found in Exhibit C.

Economic Impacts

An evaluation done by KEMA, Inc. as described in detail in Exhibit D, has found that the direct economic benefits associated with Main Tier projects currently under contract with NYSERDA are approximately \$2.1 billion and the total benefits (including multiplier effects) are approximately \$4.2 billion. Economic benefits include well-paying jobs, large capital expenditures for equipment, purchases of professional services and construction materials, and rentals of equipment during site development and project construction. Economic benefits expected to occur over the 20-year economic life of the projects include new trade and professional jobs, new property tax revenues and other payments to local taxing jurisdictions, royalty payments to landowners, purchases of materials and equipment rentals for project operations and maintenance, and biofuel purchases.

The total economic impacts of \$4.2 billion are associated with a program funding commitment of \$582.5 million; ¹⁰ a benefit/cost ratio of more than 7 to 1. Based on the results of the KEMA analysis, it is clearly evident that the positive economic impacts of the RPS program to date will far exceed the direct costs associated with long-term contracts for RPS-Attributes. KEMA also conducted an analysis of the expected economic benefits associated with satisfying a program goal of 30% by 2015. On the basis of this analysis, under a 30% scenario the ratio of economic benefits to expected direct acquisition costs is expected to increase materially.

Program Cost/Cost Study Update

Based on a comprehensive cost study conducted in 2003, the Commission, in its September 24, 2004 Order, specified an escalating annual collection schedule lasting through 2013 and totaling approximately \$741.5 million. The currently specified collections have been near fully committed. The Commission recognized that, under the Main Tier, NYSERDA would be entering into long-term contracts requiring payments past 2013, but deferred specifying the amount of those collections to cover those

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⁹ This includes the retained economic benefits from the two Maintenance Resource facilities, Boralex and Lyonsdale.

¹⁰ Includes funding in support of in-state Main Tier resources and Maintenance Resources only.

¹¹ Case 03-E-0188 <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard</u>, "Order Regarding Retail Renewable Portfolio Standard," issued and effective September 24, 2004.

payments above the currently specified \$741.5 million until the program was underway and program costs became better known. 12

To support the Commission's plan to reassess specified collection and program costs once the program was underway, NYSERDA competitively selected Sustainable Energy Advantage and LaCapra Associates to prepare a study estimating the costs to achieve the balance of the program targets. The scope of the Cost Study Update¹³ was established through consultation with the Department of Public Service. It also incorporates more recent energy forecasts and new energy efficiency initiatives, with a separate examination of achieving more ambitious overall goals of 30% by 2015 and achieving a more aggressive photovoltaic program goal.

As the penetration of renewable resources, and in particular wind power, increases, constraints on the capacity of the existing transmission system to deliver energy will likely present a challenge to meeting more aggressive program goals at predicted or reasonable costs. This situation is not unique to New York; other RPS compliance markets face similar challenges (e.g., New England, California). Any consideration of increasing the program goal to 30% should include an assessment of this challenge.

NYSERDA further points out that all forecasts are by their nature dependent on assumptions about future circumstances. The conclusions contained in Cost Study Update are dependent on such factors as future fuel prices, the strength of the dollar, the cost of raw materials, and the cost of debt and equity. The recent turmoil in the international financial markets may also affect the ability of developers to obtain project financing.

Summary

In summary, the RPS Main Tier program has had considerable success. NYSERDA has contracted with thirty new renewable facilities as well as two Maintenance Resources, representing total installed capacity of 1,377 MW. Based on an independent evaluation, the total economic benefits associated with Main Tier projects currently under contract with NYSERDA are approximately \$4.2 billion. It is clearly evident that the economic impacts of the RPS program to date will far exceed the direct costs associated with long-term contracts for RPS-Attributes (economic benefit-to-cost ratio of 7 to 1). On the basis of an assessment by Summit Blue, the REC prices under the New York RPS appear to be some of the lowest in the region and have been highly effective at getting a significant amount of resources built.

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¹² Case 03-E-0188 <u>Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard</u>, "Order Regarding Petitions for Clarification and Reconsideration," issued and effective December 15, 2004, p. 5. The estimate of costs to acquire resources through 2013 in the 2003 cost study excluded costs associated with (a) program administration, (b) NYS public authority fees, (c) maintenance resource contracts and (d) acquisition costs associated with NYSERDA contracts extending beyond 2013. The updated cost assessment under consideration in this proceeding will provide a basis for specifying these costs and establishing collections to support further progress in achievement of the RPS targets.

¹³ see www.dps.state.ny.us/03E0188.htm

As is the case in the Main Tier program segment, considerable progress toward targets has been achieved on the Customer-Sited Tier program. On the basis of applications in process, pending contracts and operating installations through October 31, 2008, energy production from eligible technologies is expected to approach 64,000 MWh or about 120% of the end-of-year 2009 program target of 53,000 MWh.

NYSERDA appreciates the opportunity to provide these comments as to the future of New York's RPS program.

Respectfully submitted,

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Attachments.

Cc: Active Parties, by electronic mail