

October 28, 2013

Hon. Kathleen H. Burgess  
Secretary to the Commission  
New York State Public Service Commission  
Empire State Plaza, Agency Building 3  
Albany, New York 12223-1350

Via email: [secretary@dps.ny.gov](mailto:secretary@dps.ny.gov) and [rps@dps.ny.gov](mailto:rps@dps.ny.gov)

**RE: Case 03-E-0188 – 2013 Review of Renewable Portfolio Standard**

---

Dear Secretary Burgess:

Brookfield Renewable Energy Group (BREG) is appreciative of the opportunity to provide comments on the above-referred case before the Public Service Commission, regarding the 2013 Review of Energy Programs. Our comments are focused primarily on the Renewable Portfolio Standard (RPS), with particular reference to changes to the Main Tier program that would enable it to better move toward the ultimate aim of establishing a viable, self-sustaining competitive renewable generation market, which was put forth as the highest priority objective of the RPS at the time of its inception in 2004. BREG intends to demonstrate through this submission that this objective, as well as all of the other important economic and environmental objectives of the program, can only be properly achieved with significantly improved value recognition of existing renewable generation resources.

We have taken the liberty to suggest recommendations that would provide better recognition of existing resources, and reduce or eliminate the discrimination between new and existing renewable resources in the RPS. The implementation of these recommendations would better serve the long-term interests of New York ratepayers, renewable generators, and the communities that rely on these facilities as a critical economic base.

Our comments are enclosed herein, including appended supporting documentation prepared on our behalf by The Brattle Group, which is referenced throughout our commentary.

Sincerely,



Jon Norman  
Vice-President, Commercial Development

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

---

**Proceeding on Motion of the Commission  
Regarding a Retail Renewable Portfolio  
Standard:**

**Case 03-E-0188**

***2013 Review of Energy Programs***

---

**COMMENTS OF BROOKFIELD RENEWABLE ENERGY GROUP**

On September 5, 2013 the New York State Energy Research and Development Authority (NYSERDA) filed a report with the New York Public Service Commission (the Commission) to assist the Commission in assessing the Renewable Portfolio Standard (RPS) Main Tier's progress toward meeting its goals and objectives. The Commission committed to reviewing the status of three related initiatives: the System Benefit Charge-funded NYSERDA programs, the Energy Efficiency Portfolio Standard (EEPS), and the RPS program; with each carefully evaluated, measured and verified to revisit the initiative and the allocation of resources among them (the Review). We respectfully provide comments with regard to the Review, and request that the Commission implement our recommendations in stages to better achieve the program objectives in the long-term interest of New York ratepayers.

**1. About Brookfield Renewable Energy Group (BREG)**

BREG has more than 100 years of experience as an owner, operator and developer of hydroelectric power facilities. Today it operates one of the largest publicly-traded renewable power platforms in the world. Its current portfolio consists of both clean hydroelectric sources and wind generation, and totals approximately 5,900 megawatts of installed capacity globally, with about half located in the United States. BREG has a particularly significant presence in New York with 75 hydro stations across western and upstate New York, representing well over 700 MW of installed capacity. More than 40 of these stations have received independent low impact certification (from the Low Impact Hydropower Institute), which is evidence of our ongoing commitment to proactively manage and, whenever possible, lessen the potential environmental impact associated with our operations and facilities. Over the years BREG has also been an active and successful participant in several of NYSERDA's Main Tier solicitations, specifically for incremental upgrades of hydropower facilities as well as for select out-of-state resources.<sup>i</sup>

## **2. Role of RPS within NYSERDA's broader spectrum of programs**

Our comments are primarily focused on the 2013 Review of the RPS program; in particular the important role that existing renewable generating resources such as the hydroelectric power described above play in achieving New York's RPS objectives, and the importance of ensuring sustainable support that recognizes the value of these resources.

We note however that, to the extent the Commission is considering reallocation of funding between programs, the relationship between the RPS and Green Bank program, which was discussed at the Technical Conference held at the Commission's offices on October 15, 2013, needs to be defined more clearly. While funding decisions ultimately need to be made several programs, including the NY-Sun initiative, it is notable that the RPS program is the most established and proven at providing environmental and economic benefits to the State.<sup>ii</sup> NYSERDA's own documentation, including the 2013 RPS Main Tier Review report confirms the proven history and positive contributions of the RPS to the State's policy favoring development of clean and stable energy sources. Furthermore, the business case for the Green Bank program as prepared by Booz & Co. clearly states that despite any benefits of providing financing for clean energy projects through the Green Bank, that some level of state/ratepayer funded incentives will still be required to drive demand.<sup>iii</sup>

Therefore a healthy and sustainable RPS program, including recognizing the value of existing renewable resources, is critical to the long-term sustainability of New York's renewable power industry. Many of these comments are elaborated on in the submission of the Independent Power Producers of New York (IPPNY).<sup>iv</sup> We agree with IPPNY in general that appropriate Main Tier funding is needed both to appropriately maintain existing resources and to develop new renewable resources, and should be assured in the RPS funding decisions. We would also suggest that any under-spending observed in the Main Tier program to-date may be due to other factors that are undermining the efficient achievement of program objectives, including the discrimination against existing resources we describe below.

Overall, appropriate, healthy and continuing stable allocation to the RPS will not only be consistent with the objectives of the program, it will be in the best interests of New York ratepayers, assuming other program deficiencies are addressed.

## **3. BREG's Position on the RPS Main Tier Program**

BREG respectfully submits to the Commission that the RPS Main Tier program's continuing design focus on new (post-2003) resources:

- Results in potentially significant program inefficiencies over time,
- Fails to recognize the significant value that pre-existing renewable energy resources provide to the grid; and,
- Is not consistent with the stated Program Objectives as described in the 2004 Commission Order on the RPS.<sup>v</sup>

This exclusionary focus on new renewable resources is not in the best long-term interests of ratepayers, renewable generators (both those that are pre-2003 and those that are reliant on 10-year NYSEDA contracts), or the communities in which they are located, as described further below. It is also inconsistent with approaches taken in many other US jurisdictions, which provide ample precedent for the provision of market-based support to existing renewables in state RPS systems.

BREG therefore recommends that the Commission establish mechanisms that provide meaningful and sustainable support to existing resources, which would serve to eliminate, or at least minimize, the discrimination between new and existing generation. These recommendations are further described in Section 6. Implementing these recommendations would better serve the long-term interests of New York ratepayers, renewable generators, and the communities that rely on these facilities as a critical economic and tax base.

#### **4. The Impact of Discrimination in the RPS between New and Existing Resources**

BREG has retained The Brattle Group (Brattle) to provide an independent third-party analysis of the conceptual bases and implications of the discrimination between new and existing renewable generation facilities inherent in the design of the New York RPS, to identify if and where problems have emerged under this policy, and to develop potential solutions to those problems where identified.

The Brattle report clearly concludes that existing renewable resources meaningfully contribute to all of the stated goals of the New York RPS, in particular that:

*“The retention of existing renewables in current market circumstances contributes as much to the goals of the program as promoting new renewables, and recognizing the value of existing renewables enhances the overall efficiency of the policy and its compatibility with competitive energy markets.”*

The Brattle report further describes how each of the seven goals adopted in the September 2004 PSC Order are served by having appropriate incentives in place to retain existing capacity, or moving to a construct that does not discriminate, or as a minimum discriminates less, between new and existing renewable projects.

Based on its analysis and comparison across other US jurisdictions, the Brattle Report’s primary conclusions are:

- 1. The retention of existing renewables contributes as much to the goals of the program as promoting new renewables. The current RPS policy structure does not compensate existing renewable generation in a manner commensurate with its value in helping to meet the target for renewable energy. Lacking such compensation, the program will likely increase cost over the long term. In particular, the focus on providing ratepayer support only for new renewable facilities over their first 10 years of operation is likely to*

*lead to increasing exports of renewable energy and attributes in the long run, which would undermine the attainment of New York's renewable energy goals and necessitate further ratepayer support for additional renewable energy in the future.*

- 2. The Maintenance Resource process is overly burdensome and may deter existing renewables from seeking the needed support when faced with challenging market conditions that may lead to premature retirement of beneficial generating resources. Retirements of such renewable resources would erode the baseline resource contribution to attaining renewable energy goals, which in turn can necessitate the procurement of additional renewable resources at higher costs.*
- 3. The implementation of the RPS in New York currently does not yet establish a market that provides transparent market prices for verifiable renewable attributes. Creating such a market that increases the competitive efforts of suppliers could provide a lower-cost mechanism to attain the goals of the program over the long run.*
- 4. Market-based support mechanisms that recognize the contributions of both new and existing renewable facilities would improve the long-run efficiency and effectiveness of the RPS program to deliver on its goals.*
- 5. A variety of policy reforms could help the state to move toward a more efficient market-based system for attaining New York's renewable energy goals, ranging from fundamental structural reforms to more targeted changes that focus on support for existing renewables.*

Brattle also conducted a cross-jurisdictional analysis of various RPS programs in North America and their treatment of existing renewable resources. Brattle concluded that there is ample precedent from other states for supplying market-based support to existing renewables, which suggests that other jurisdictions have recognized the importance of sustaining their existing resource base.

These conclusions and the justification behind them are explained in detail in the Brattle report, which is attached as Appendix A. Overall, Brattle has shown that the state's primary renewable energy and competitive market objective, as well as all of the other important economic and environmental objectives of the program, would be better achieved with significantly improved value recognition of existing renewable generation resources.

## **5. The Value of Existing Renewable Generation to New York State**

Existing renewable generation provides a valuable contribution to the overall New York RPS program targets. Existing renewables represent approximately 20% (i.e. two-thirds) of the overall RPS program target of 30% of New York's energy to be sourced from renewables by

2015. In addition to this significant contribution to the overall target, these existing resources are critical to ensuring the diversity and reliability of the overall renewable energy supply, particularly considering that the vast majority of new generation produced as a result of NYSERDA's Main Tier program are from wind resources, whereas this existing base provides reliable, renewable capacity primarily from reliable sources of hydroelectric generation and some biomass.

Using BREG's in-state hydropower facilities as an example of the baseline of existing renewable generation, these resources provide:

**Diverse contribution of reliable, renewable generation:** BREG's run-of-river hydropower facilities in New York State alone contribute approximately 3 terawatt-hours (TWh) of renewable power to the state on an annual basis, or enough clean energy for 500,000 average New York households. This represents roughly 12% of the state's overall current baseline of existing (pre-2003) renewable generation resources contribution to the overall program target.<sup>vi</sup>

**Low environmental impact:** More than 40 of BREG's 75 New York hydroelectric stations have received independent low impact certification (from the Low Impact Hydropower Institute), which contribute a significant amount of baseline renewable generation to the state. The LIHI standard is dedicated to reducing the impacts of hydropower generation through the certification of hydropower projects that have avoided or reduced their environmental impacts pursuant to stringent criteria. In order for a facility to be certified it must be shown to be ecologically sustainable as defined by protection, mitigation, and enhancement of river flows and reservoir management, water quality, fish passage and avoidance of entrainment, watershed lands, threatened and endangered species, cultural resources, or recreation.<sup>vii</sup>

**Community-focused operations:** BREG's facilities are a major element of several upstate and western New York communities, with a strong presence in 14 New York counties. By their nature, the facilities have community-focused operations, often with significant history at the focal point of town. They also are typically a frequent contributor to community events/charities and result in the maintenance of over 50 New York family recreational areas.

**Important economic contributions to upstate New York:** Smaller-scale hydropower facilities are a major contributor to local tax revenue, with BREG's facilities alone providing over \$28 million annually in direct tax receipts by counties and municipalities. This can represent a significant proportion of upstate municipalities' revenue stream, upwards of 50% in many cases. They also result in significant economic spin-offs: BREG's New York hydropower facilities also represent an annual in-state investment of over \$30 million in operating and capital expenses, which does not include the significant multiplier effects of indirect and induced spending associated with this.

As noted earlier, despite these significant contributions to the state's renewable energy portfolio, and its economic development objectives, the New York RPS as currently designed fails to recognize the significant value provided by these facilities. Yet these facilities generally provide

equivalent value to the state in terms of the ongoing environmental benefits and economic contributions to their communities and the state, as described in more detail in the Brattle report. This not only raises fairness issues, Brattle demonstrates how this is inefficient for New York ratepayers over the long-term and may undermine the objectives of the program.

## **6. Overall Recommendations**

Given the issues identified above and throughout its report, the Brattle report concludes that *“effective, efficient market-based support for existing [renewable] capacity could provide a gradient of near-term solutions toward long-term sustainable mechanisms for support that would be more consistent with the RPS program goals”*

Building on this conceptual base, Brattle has identified longer-term structural solutions for the RPS to provide predictable and sustained revenue streams for existing resources, as well as transitional and targeted solutions. The latter are consistent with long-term objectives to reduce discrimination between new and existing resources, but are more interim and less structural in nature. Brattle’s suggested policy options are described further on pages 19-20 of their report.

BREG respectfully requests that the Commission pursue changes to the RPS structure and/or long-term contracting with the impacted existing renewable resource base, consistent with these policy options, with a specific goal of ensuring long-term, sustainable value recognition for existing renewable resources.

BREG supports the intent of all of Brattle’s identified policy options to address current deficiencies in the RPS program. However, on the basis of their ability to sustainably address the deficiencies of the program over the long-term, BREG specifically recommends that the Commission implement the following to ensure long-term sustainable support for existing renewable resources, as part of the 2013 Review of Energy Programs:

- 1) Initiate a proceeding to consider and implement appropriate structural changes to the current RPS system with the goal of supporting existing renewable energy projects in a non-discriminatory way.**

The focus of this proceeding should be on implementing sustainable market-based mechanisms, and should give due consideration to various models: ranging from implementing the ideal of a single-price RPS market that includes new and existing renewables in a single tier, to models that maintain a solicitation mechanism for new projects, but establish an RPS market for existing projects as a Retention Tier. This Retention Tier mechanism in particular may become more relevant as more and more projects come off their 10-year NYSERDA contracts, and is described further by Brattle on page 19 of its report. BREG believes that, consistent with the market design for other markets for energy products, the ideal competitive structure provides preferred

outcomes for the state, ratepayers, and generators alike over the long-term. We recognize this must be balanced against pragmatic implementation realities and the current structure of the RPS system, and therefore recommend a proceeding to address these issues and ensure a sustainable competitive RPS market structure is developed for New York.

**2) Establish a Long-Term Contracting Initiative for the current base of existing (pre-2003) unregulated renewable energy generation facilities:**

Pursuing standardized long-term support contracts for the current base existing unregulated renewable resources (i.e. those that currently meet Main Tier eligibility criteria, other than vintage), would provide immediate support for existing facilities that are currently impacted by the lack of sustainable revenue support through the RPS. In addition, this policy would have the ability to provide a carbon free, renewable energy hedge for the state. Brattle has described this option as: renewable support contracts that:

*“Standardized long-term support contracts offered to existing renewable resources which could adjust or expire with market shifts or regulatory events that raise energy market revenues. For example, such contracts might be part of a carbon price hedging strategy, encouraging the retention of renewable resources until such time that a significant carbon price policy is in place, and contracts could expire upon such an event. This would help New York hedge market exposure to climate policy by providing support for these facilities to ensure that they will remain in the market. These contracts could also be contingent on keeping renewable attributes within New York.”*

BREG supports this approach to long-term contracting for existing resources given the importance of minimizing REC leakage over the near and long terms, and providing sustainable revenue streams to the existing renewable resources given the recent evolution of energy and capacity market conditions. The state could also benefit from using this initiative to contract for the energy and capacity provided the existing unregulated renewable resources.

There are several benefits that long-term contracting with existing renewable resources would provide the state:

- Meaningful and stable support that recognizes the long-term value of existing renewable resources in the state, can be implemented quickly and implemented with relative ease.
- Assured ongoing contributions to the states renewable energy objectives, as well as continued benefits to the communities in which they operate.



- A valuable and timely hedge against capacity and energy price volatility in New York. Under the current state policy, New York ratepayers are largely exposed to spot market prices.
- Cost-effectiveness compared to new renewable resources. Contracting with existing renewable resources is cost-competitive and would be expected to provide a more valuable hedge to the state.

Of course, it is important that any long-term contracting initiative that involves energy and capacity be pursued in accordance with the prevailing NYISO market rules.

We believe that the recommendations above result in the most predictable and sustainable long-term support for these resources, and would be in best long-term interests of New York ratepayers. We note however that other measures could also be effective over an interim period leading to more sustainable, predictable long-term support. For example, the Commission could direct NYSERDA to provide annual support for existing renewable generation as part of the RPS. As suggested by Brattle, such support would be based on the level of current- or recent-year Main Tier contract prices, applied to actual or expected annual output (or some fraction thereof). Relatedly, the state could simply allow unregulated existing renewable resources to qualify into the RPS Main Tier, but this outcome would only meaningfully achieve the stated objectives of the RPS program over the long-term if used as a transition bridging mechanism toward more sustainable, long-term support mechanisms.

## **7. Other Comments Regarding the RPS Program**

BREG would also like to take this opportunity to reiterate our position that the RPS Main Tier program's recent limitation to in-state renewable resources only is contrary to the efficient achievement of the program objectives and, and should be removed to be in the best interests of New York State consumers. This position is described in detail in our submissions to the PSC dated February 15, 2013 and September 9, 2013.<sup>viii</sup>

Relatedly, we await the implementation of New York Assembly Bill 6114-C, which requires NYSERDA to establish a generation attribute tracking system (GATS). GATS will be important to verifying how the program is achieving its objectives, particularly related to the leakage issues described above, as well as to ensure greater efficiency in the overall RPS program.

## Notes:

---

<sup>i</sup> 2012 RPS Performance Report – Appendix A: <http://www.nyserda.ny.gov/Publications/Program-Planning-Status-and-Evaluation-Reports/-/media/Files/Publications/PPSER/NYSERDA/2012-rps-report.ashx>

<sup>ii</sup> See for example NYSERDA *Renewable Portfolio Standard, Main Tier 2013 Program Review – Final Report*, September 5, 2013, and *New York Main Tier RPS – Impact and Process Evaluation*, by KEMA Inc., March 2009, outlining demonstrated benefits of the RPS program since its inception in 2004.

<sup>iii</sup> Booz & Co. *New York State Green Bank – Business Plan Development*, Final Report, Sept 3, 2013; p.7

<sup>iv</sup> IPPNY submission to Public Service Commission re PSC Case 03-E-0188 & Case 13-M-0412, dated October 28, 2013.

<sup>v</sup> RPS Program Objectives as defined on pp.23-24 of Commission Order Regarding Retail Renewable Portfolio Standard, dated September 24, 2004.

<sup>vi</sup> Based on 2012 net generation from pre-2003 existing eligible resource types, including wind, biogas, biomass and conventional hydro resources.

<sup>vii</sup> More information on LIHI can be found at <http://www.lowimpacthydro.org>

<sup>viii</sup> BREG submission to Public Service Commission re PSC Case 03-E-0188: NYSERDA Petition to limit RPS program eligibility to in-state resources, dated February 15, 2013; and BREG submission to Public Service Commission re PSC Case 03-E-0188: Petition for Rehearing of HQ Energy Services (US) Inc., dated September 9, 2013.