

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Proceeding In the Matter of the Implementation
of a Large-Scale Renewable Program

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) Case 15-E-0302
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**BROOKFIELD RENEWABLE ENERGY GROUP COMMENTS
REGARDING THE LARGE-SCALE RENEWABLE PROGRAM**

Brookfield Renewable Energy Group (“Brookfield Renewable”) respectfully submits the following comments in response to the Public Service Commission’s (“Commission”) June 1, 2015 Order in this docket¹. Brookfield Renewable supports the re-examination of the treatment of large-scale renewable projects, both legacy projects and new projects, and offers the comments below.

Brookfield Renewable strongly believes that the most effective and cost-efficient way of developing renewable energy in the State sustainably over the long-term is to implement predictable market-based mechanisms that do not discriminate between new and existing renewable generation, regardless of vintage, and instead provide appropriate value recognition for the underlying renewable and emissions-free attributes. We have previously delineated the benefits of this approach in detail during the 2013 Review of the Renewable Portfolio Standard (RPS)², and we believe adopting this approach will become increasingly important to the State as federal carbon standards are implemented under the Clean Air Act.

¹ Case 15-E-0302 – *In the Matter of the Implementation of a Large-Scale Renewable Program*, Notice Instituting Proceeding, Soliciting Comments and Providing for Technical Conference (Issued June 1, 2015) (“June Order”).

² Case 03-E-0188, *Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard*, Comments of Brookfield Energy Renewable Group, filed October 29, 2013.

However given the more narrow focus of this proceeding, Brookfield Renewable is in support of two basic principles: 1) long-term Power Purchase Agreements (“PPA”s) are necessary to facilitate new and retain existing (“Legacy”) large-scale renewable generation in order to meet the State’s renewable goals; and 2) to complement long-term procurement opportunities through PPAs, renewable energy facilities will participate in voluntary markets when there is a transparent, well-defined market to trade Renewable Energy Credits (“REC”s).

In order to achieve this New York should:

- Establish as a core principle the retention of existing renewable energy resources, building on criteria in the State’s energy plan.
- Ensure that the State’s Climate Goals, including a statewide renewable energy target of at least 50% of electrical energy from renewable sources by 2025 is reflected in the new large scale renewable (“LSR”) program and that enforcement mechanisms exist to ensure the target is achieved.
- Formally acknowledge that all Legacy LSRs, including existing uncontracted resources, are counted toward the State’s RPS goals and that such resources should be recognized for the value they are providing the system.
- Allow for bundled contracting with privately-owned Legacy renewable generation to ensure retention and act as a clean hedge against future price volatility. Facilitate contracting with multiple credit-worthy counterparties such as Electric Distribution Companies (“EDC”s). Initiate a separate track of this proceeding, if necessary, to establish such mechanisms. Include in Track II of the REV proceeding, which is considering ratemaking and utility business models, consideration of ratemaking mechanisms that align such contracts with EDC business interests.

- Make privately owned, Legacy LSR resources that are not currently operating pursuant to a New York State Energy Research and Development Authority (“NYSERDA”) contract, eligible for the same market opportunities as those projects that were built pursuant to Main-Tier solicitations.
- Reevaluate earlier decisions which ignored the contribution of imported renewable energy from out-of-state and discouraged the participation of these valuable resources in New York programs. Such resources could provide verifiable, tracked renewable generation in a cost-effective manner to New York consumers as part of Main Tier and Legacy solicitations.
- Establish a liquid market where many buyers and many sellers can buy and sell RECs (with or without energy and capacity), seeded by directing purchases of RECs by Government agencies, and ensuring RECs are tracked under a robust New York Generator Attribute Tracking System (NYGATs)

Introduction

In its February 26, 2015 Order in the REV Proceeding, the Commission instituted a REV large-scale renewable track.³ In response to that order, Staff, NYSERDA and its consultants prepared a paper regarding options for LSR development⁴. The June Order posits a series of questions related to the Paper. Brookfield Renewable appreciates the opportunity to respond to these questions.

Brookfield Renewable Assets in New York

Brookfield Renewable has been actively investing in New York by purchasing existing hydroelectric facilities, and performing strategic upgrades while owning and operating these facilities. Brookfield Renewable's 75 hydroelectric stations (which have historically been counted towards the RPS but not compensated) across western and upstate New York, representing over 700 MWs of nameplate capacity, provide the following benefits to the state:

1. Carbon Reductions – In 2013, Brookfield Renewable produced over 3 TWhs of hydroelectricity in New York. Had the state instead used the typical system power – which has an emissions output of 720.8 lbs/MWh for upstate New York⁵ – there would have been an additional 1 million tons of carbon dioxide generated. Using NYSERDA's base case CO2 price of \$15/ton⁶, this represents approximately \$15 million in annual savings for New York ratepayers;

³ Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting Regulatory Policy Framework and Implementation Plan, (issued February 26, 2015) ("February Order") pp. 82-84.

⁴ *Large-Scale Renewable Energy Development in New York: Options and Assessment; Final Report*, New York State Energy Research and Development Authority, Report 15-12, (Issued June, 2015).

⁵ 2005 GHG Annual Output Emissions Rate per <http://cfpub.epa.gov/egridweb/ghg.cfm>.

⁶ 2014 RPS Performance Report: <http://www.nyserra.ny.gov/All-Programs/Programs/Main-Tier/Documents>.

2. Property Taxes – Brookfield Renewable paid over \$25 million in 2013 in property taxes across the communities hosting its 75 New York hydroelectric facilities. Most of these expenditures are in the North Country and other rural areas, and Brookfield Renewable is a significant, if not leading, tax payer in the communities it serves;
3. Jobs – Brookfield Renewable has over 200 employees across the state – with most in rural areas where good-paying jobs are particularly important to the local economies;
4. Economic Investment – Brookfield Renewable’s hydropower facilities 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;
5. Resource Diversity – During the Polar Vortex of 2014, when power prices spiked throughout the Midwest and Northeast, hydroelectric facilities maintained a high level of reliable performance and thereby relieved some pressure on natural gas demand. While New York’s power prices spiked above \$200/MWh, this number would have been much higher if hydropower had not been part of the State’s fuel mix;
6. VAR Support – As the grid becomes increasingly dependent upon intermittent resources, reactive power (volt-ampere reactive or “VAR”) support is needed to maintain voltage and power factors within the operating limits prescribed by the grid. Hydroelectric power plants provide considerable reactive power that allows for overall grid stability⁷.

⁷ <http://www.sciencedirect.com/science/article/pii/S0142061511001311>.

Brookfield Renewable's Response

Section 4.1 of the NYSERDA LSR Position paper reiterates that New York's four core principles for the design and implementation of the next generation LSR structure are:

- Achieve the lowest possible cost while maximizing customer benefits
- Promote competition
- Improve revenue certainty to enable market stability and growth
- Animate the voluntary market for renewables to complement public investments

Two important and defining goals are highlighted in New York's 2015 State Energy Plan:⁸

- 1. 40% reduction in Greenhouse Gas ("GHG") emissions from 1990 levels; and
- 2. 50% generation of electricity from renewable energy sources,

In order to achieve these two goals, all base line renewable assets (that New York has been counting towards the RPS to date) need to be considered.⁹ To ensure that baseline assets continue to contribute to the State's goals (rather than, for example, being sold and tracked out-of-state), appropriate value recognition must be provided to these resources, particularly privately owned resources.

Brookfield Renewable therefore believes that the combination of long-term contracting opportunities for renewable energy (both new and existing, regardless of vintage) as well as a robust REC-trading based model are an integral element in the State's ability to achieve these important objectives.

⁸ *The Energy to Lead, 2015 New York State Energy Plan*, approved by the Energy Planning Board, June 25, 2015.

⁹ Furthermore, Brookfield Renewable has additional renewable energy assets in Quebec (6 Hydro Stations totaling 291 MWs), Ontario (21 hydro stations and 3 wind farms totaling 1302 MWs) and New England (39 hydro stations and 1 wind farm totaling 1303 MWs) some of that could be used as imports by New York to increase geographic diversity and would more efficiently achieve the stated objectives. We have highlighted the benefits of such an approach in previous submissions to the PSC.

I. LSR Options Questions for Stakeholders

Below please find Brookfield Renewable's responses to the questions contained in the Commission's June Notice.

- 1. Chapter 4 outlines criteria for evaluating large-scale renewable (LSR) options addressed in the report. Are there any criteria that should be eliminated or added? To the degree that the criteria may conflict, are there some that should be prioritized over others?*

Brookfield Renewable encourages New York to value all generation (both existing and new) in terms of the level of their carbon emissions. The anticipated federal Environmental Protection Agency Clean Power Plan and the movement of Ontario and Quebec towards a cap and trade system, as well as the existing Regional Greenhouse Gas Initiative currently being implemented throughout the Northeast reflect the increasing recognition of the value of clean energy in North America.

The New York RPS was established to spur new renewable energy generation utilizing REC-only contracts extending up to 20 years. However, going forward New York should have as an explicit and core principle the retention of existing renewable energy resources. In evaluating options for the treatment of existing renewable resources, it should explicitly consider the criteria from the energy plan regarding GHG emission reduction and total renewable energy in the state. Unfortunately, the toolbox currently available to the state to keep existing renewable generation on line only includes implementation of Maintenance Tier contracts, which provide limited ability to provide the economic mechanisms to continue to maintain the environmental attributes the state seeks to encourage and maintain long term. The current Maintenance Tier has structural challenges, including a lengthy, resource-intensive application process in which operators must fully open their books to state regulators in order for them to make the determination of the minimum level of financial support required for continued operation, rather

than utilizing market-based solutions which would encourage economic decisions that might lead to greater long-term investments in these valuable assets.

In 2013, Brookfield Renewable retained The Brattle Group (“Brattle”) to provide an independent third-party analysis of the conceptual bases and implications of the disparate treatment of 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. As described by Brattle:

The [New York] 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.¹⁰

In light of the Commission’s goal to minimize program costs and impacts on consumers and the Brattle conclusion cited above, Brookfield Renewable encourages the state to add as criteria for new renewable contracts for Legacy LSRs consideration of what the cost would be if existing renewables would no longer count towards New York’s environmental compliance and renewable goals. In addition to the threat of decommissioning due to economics, there is the threat that RECs will be sold into the markets of other states or provinces. As the Brattle Report predicted¹¹ and the NYSERDA report recognizes, “In the absence of any New York policy that would create material value for these resources, owners of Legacy LSR projects are already

¹⁰ Case 03-E-0188, *Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard*, Supporting Documentation to the Comments of Brookfield Renewable Energy Group: *Recognizing the Value of Existing Renewable Generation in New York*, prepared by the Brattle Group, dated October 28, 2013, filed October 29, 2013, (“Brattle Report”) p. 2.

¹¹ Brattle Report, p. 5.

looking to other markets. Energy and associated RECs from New York projects under contract to NYSERDA, but above and beyond the quantities purchased by NYSERDA, are already being exported to New England.”¹²

2. *Chapter 5 addresses design features applicable to LSR policy. As New York revisits the structural elements of procuring LSR resources, what changes, if any, should be made to the existing Main Tier program rules regarding obligated entities or eligibility of resources (based on resource type, energy delivery requirements, or vintage)? Please provide justification for each suggested change.*

The state derives significant benefits from Legacy LSR projects, including projects such as Brookfield Renewable’s hydroelectric generating facilities (as detailed in our introduction) that should also be included in the Legacy LSR definition. New York should change the Main Tier solicitation to allow for contracting of all privately-owned merchant renewable energy that the state has counted toward their RPS targets to date, but which have not received compensation under NYSERDA programs. Appropriate value recognition in such contracts would encourage further competition, minimize cost to the ratepayers, and ensure that valuable renewable energy remains in the State.

Brookfield Renewable agrees with the Commission’s long-standing belief that properly functioning competitive markets lead to lower prices for ratepayers, innovation and operational efficiency. In order to ensure properly functioning markets, the legacy LSR should be defined to include all **privately** owned generation that currently is included in the RPS. This will enhance efficiency while avoiding leakage of renewable energy from the State.

Assuming there is a working New York Generation Attribute Tracking System (“NYGATS”) by the start of this proposed RPS in 2017, New York should also consider Legacy LSRs to include all renewable energy (both internal and imports) that is able to show delivery

¹² NYSERDA Report, p. 114, citing MA RPS & APS Annual Compliance Report and NEPOOL GIS Generator Report.

into the state. In other words, with NYGATS in place, we believe that New York should reconsider earlier decisions devaluing the contribution of imported renewable energy from out-of-state. Such clean external resources could provide verifiable, tracked renewable generation in a cost-effective manner to New York consumers.

3. *Chapter 5 discusses the options for ratepayer funding mechanisms, including an approach that seeks to fix the price for bundled LSR procurement, but necessitating a varying, reconciling collection mechanism due to fluctuating energy prices; and a fixed premium which could readily be supported by a predetermined and fixed collection rate from ratepayers. a. Are the tradeoffs between a fixed and known collection schedule and one that varies with the price of energy appropriately addressed? If so, is there a strong preference for one funding mechanism over the other? b. Are there additional cost containment strategies, not identified in Section 5.4.1 that should be considered? If not, is there a preference for some strategies more than others?*

As described in response to Question 10 below, Brookfield Renewable supports bundled LSR procurement that includes legacy LSR assets (defined to include existing privately-owned renewable generation regardless of vintage), but has no comment regarding the collection mechanism at this time.

4. *Chapter 6 describes three primary design structures and variants for supporting the development of new LSR resources, within a range of options described in Table 4. a. Are there additional benefits, challenges and/or considerations that should be addressed for any of the three primary options and variants? If so, please explain. b. Are there other structures and mechanisms that should be considered for supporting new LSRs that are not mentioned in Chapter 6? If yes, please describe.*

Markets in general are more robust and liquid when there are multiple buyers and sellers, therefore Brookfield Renewable supports Option 3, with the caveat that the electric distribution companies (“EDC”s) in the state act as counterparties (with a non-bypassable charge to ratepayers to ensure cost recovery) as opposed to a state entity. This construct is consistent with the Commission’s vision in the overarching REV proceeding that EDCs act in the role of

Distributed System Platform (“DSP”) providers.¹³ If the EDCs are to procure in this fashion, there needs to be a streamlined process for pre-approval or contract approval to ensure clear timelines.

Brookfield Renewable’s largest concern with any long term contract is that there be a credit-worthy entity on the other side of the contract. If the state elects the option of contracts-for-differences (“CFD”s) with NYSERDA (with ratepayers paying for the imputed REC prices via a Systems Benefits Charge or “SBC”), Brookfield Renewable encourages the state to fully consider possible Dodd-Frank implications and to set up the contracts in such a way that takes these into account. The Commodity Futures Trading Commission (CFTC) has indicated that Contracts for Differences are included within the definition of “swap” under the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). As such, any transaction involving CFDs would be reportable to the CFTC and would be subject to CFTC regulations. Such transactions could potentially count towards an entities’ swap dealer or major swap participant threshold – something that could act as a deterrent against entering into a long-term contract that is also a CFD. It is likely that if New York were to only offer CFDs, an organization may be unable to participate in future contracting opportunities if it is close to its threshold limits.

Regarding utility ownership, the New York Independent System Operator (“NYISO”) recently issued a study showing that New York power prices have fallen 34% under restructured, competitive markets.¹⁴ It is counterintuitive that the state would wish to retreat on the successes

¹³ February Order, p. 12, 45-53.

¹⁴ <http://www.energymanagertoday.com/ny-electricity-prices-have-fallen-34-under-deregulation-0112925/>

of its competitive model with its economic, environmental and efficiency gains and retreat to a model of utility ownership.

5. *Chapter 6 discusses the impact of utility-backed power purchase agreements (PPAs) on credit ratings and other accounting considerations. a. Are there any other impacts on credit ratings or accounting requirements that should be considered? If yes, please explain. b. What actions should an LSR option including PPAs with electric distribution utilities employ to minimize those impacts?*

Brookfield Renewable has no comment, but believes that clear regulatory expectations regarding recovery of costs by EDCs could serve to mitigate impacts on credit ratings.

6. *Chapter 7 provides an overview of financing options for LSR developers and investors that can increase financing efficiency and reduce costs, thereby lowering overall costs to consumers. a. Are the risks and benefits of each financing option adequately characterized? b. Are there other factors that should be considered by the Commission in its support of these financing options? c. Should the establishment of a debt securitization option, as described in Chapter 7, be considered?*

As pointed out in the NYSERDA position paper, lowering financing costs of large scale renewables reduces the overall cost to consumers of large scale renewable energy development – but it also reduces the overall cost to consumers of existing large scale renewable energy projects. Existing clean energy projects are eligible for financing based on expected revenue streams – and the cost of financing can be lowered through either through stabilizing cash flows or reducing the risk profile of the project.

The best way to stabilize cash flows is to have a long-term contract with a credit-worthy entity on the other end. This achieves lower project costs in two key ways: it lowers the borrowing cost as it increases the credit rating of the project, and allows for the generator to improve leverage by borrowing more against the project and increases the overall economics of the project. The lower borrowing cost is in addition to the benefits mentioned throughout the rest

of Brookfield Renewable's comments regarding why PPAs are beneficial both for the consumer and for the renewable energy owner.

Reducing the overall risk profile of the project achieves many of the same objectives. This can be done in the following ways:

- **Ensuring PPA counterparty is credit worthy** – The rating of the PPA offtake can be a limiting factor of the rating potential of the project. Ensuring that any counterparty has an investment-grade credit rating is imperative to ensure the lowest borrowing costs.
- **Guarantee of the PPA counterparty** – If the rating of the PPA offtaker is not high enough, the state can guarantee payment through guaranteeing the counterparty, and thus ensuring that if the offtaker were to default in later years of the contract the state would be obligated to pay for the residual of the contract.

7. *Chapter 8 provides the assumptions and methodologies used to analyze the costs of the three primary design structures. Are these assumptions and methodologies reasonable? If not, please explain.*

Brookfield Renewable has no comment.

8. *As depicted and addressed in Chapter 8, a big driver in cost reductions, relative to the current Main Tier procurement structure (REC-only), is the utility-backed PPA. a. In a bundled PPA model, who should enter into PPAs with developers? A public entity or the investor-owned utilities? b. If utilities, should they be compensated in return for taking on the financial obligations of PPAs to support project financing? If so, how should the amount of remuneration be calculated? ii. What would be the specific basis for the amount of remuneration? iii. What limitations, if any, should be placed on such remuneration?*

As noted above, Brookfield Renewable's biggest concern with any procurement structure is the credit worthiness of the contracting entity, as a non-investment grade credit rating requires significantly more credit (and hence cost) for the generator. As noted above, however,

Brookfield Renewable supports bundled PPAs and the involvement of multiple buyers such as EDCs.

9. *Chapter 8 discusses a back-loaded budget approach over a 10-year period to estimate the quantities of LSR resources that could be deployed under the three primary design structures discussed in Chapter 6, using wind energy as a proxy. a. Are these assumptions and budgets reasonable to consider for an LSR program? If not, please explain. b. Is back-loading expected procurement expenditures a reasonable way to balance objectives of costs and deployment of new LSR resources? If a different expenditure profile is preferred, please explain the approach and the rationale.*

Brookfield Renewable has no comment.

10. *Chapter 9 discusses policy options that should be considered for legacy Main Tier resources that will continue to produce energy and RECs after the expiration of their contract with NYSERDA, the first of which expire in 2016. a. Should the State continue to procure RECs (or energy and RECs) from these legacy projects? If so, why and by what mechanism? b. Should the State provide support for the vintage (pre-2003) fleet of small hydroelectric facilities and biomass facilities currently eligible for support under the current Maintenance Tier of the RPS program? If so, by what mechanism?*

The Options Paper refers to the 2,035 MW of renewable resources procured under the Main Tier RPS procurement as Legacy resources. NYSERDA notes that under the 10-year (or recently 20-year) REC-only contracts, New York has no residual post-contract rights to the RPS attributes. As noted above and by NYSERDA in its Staff Paper, for the 5% of the projects that are ear-marked for the voluntary market, many RECs are already going to more lucrative markets rather than staying in New York to provide the state's consumers the benefits they were intended to. With the expected changes from the federal Environmental Protection Agency's Clean Power Plan, it is assumed there will be even greater demand outside of New York for any uncontracted renewable energy attributes.

As NYSERDA notes, the state has already paid for the economic benefits of many of these projects. But as in the NYISO capacity market, even though certain costs of construction may have already been recovered from the energy market, there is ongoing value from certain

attributes to the state to ensure compliance with state, regional, or federal regulation, which are captured in different ways.

Brookfield Renewable strongly encourages the state to consider::

1. All Legacy LSRs should be treated the same - New York's RPS includes generation from the following qualifying sources: photovoltaics, landfill gas, wind, biomass, hydroelectric, fuel cells, anaerobic digestion, tidal energy, wave energy, ocean thermal, ethanol, methanol, biodiesel, solar thermal and biogas delivered to generation facilities via natural gas lines. All of these resources – provided they are not currently under a NYSERDA contract and are privately owned – should be considered as they all produce one common benefit: carbon-free production of energy. All in-state renewable projects have been considered – but not compensated - – as part of the RPS goal for the last 10 years, and should be eligible for the same market opportunities as those projects that were built under the NYSERDA Main-Tier solicitations.
2. PPAs provide the best value for the state under the current procurement environment – As NYSERDA mentioned in the position paper, the potential risks associated with energy exports could make the REC revenue stability and energy market hedge of a bundled PPA in New York attractive, and could produce benefits to both the owner of renewable generation and to the state if there are opportunities to compete for long-term contracting. As such, there should be PPA opportunities for Legacy LSRs, including legacy privately owned hydro generation regardless of vintage to maximize competition and avoid leakage through energy exports. As there are differing

lifecycles for different types of renewables, there should be contracts of varying lengths (such as from 5-20 years) available for projects to bid into.

11. *Chapter 9 provides an overview of the voluntary market for LSR and opportunities or its growth. a. Are these models appropriately considered? If not, why? b. Are there other policy considerations that should be examined in an effort to integrate voluntary participation and stimulate the voluntary market for renewable energy and “brown power” hedges? If so, please explain.*

At a minimum, the state should seek to have a liquid marketplace where many buyers and many sellers can buy and sell RECs (with or without energy and capacity) as they see fit. For instance, if within the voluntary market a buyer wants to be able to purchase both energy and RECs, they should be able to use the EDCs and Energy Service Companies (“ESCOs”) to enable these wholesale purchases.

The basis of this voluntary market is reliant on a strong New York Generation Attribute Tracking System, which ensures that RECs (and associated attributes) are properly tracked as they are issued, transferred, banked, retired, imported and/or exported from the New York market. Also, the Environmental Disclosure Program (EDP), currently administered by the New York State Department of Public Service, which provides for environmental disclosure information of the mix of fuel sources used to produce the electricity purchased by retail electricity customers provided to them by their electric utilities, energy service companies (ESCOs) and other load serving entities is absent from discussion in the NYSERDA Position Paper. Therefore, any discussion around the future of the voluntary market should include the integration of the EDP and its principles, as the EDP provides the current framework to buy and sell energy attributes (via the conversion transactions mechanism) while providing disclosure on emission levels of sulfur dioxide (SO₂), nitrogen oxide (NO_x) and carbon dioxide (CO₂) for the

applicable fuel mix for retail electricity customers within New York State and it should be utilized going forward.

To jump-start the voluntary market in the state, an Executive Order (comparable to Executive Order 111¹⁵) may be useful to direct purchases of RECs by Government agencies. These purchases should be open to all forms of renewables that qualify for the RPS – including privately owned new and Legacy hydro energy. New York should also consider fully utilizing (and perhaps increasing) the RGGI state set-aside provisions for Voluntary Renewable Energy (“VRE”). In the current system, when an entity retires a REC, the RGGI C02 allowance is also retired.

Finally, to further seed the voluntary market, New York should encourage cities and municipalities to signal that there will be a forward market and take steps towards its implementation. The recent announcement that New York City is looking to procure 100% of its energy needs from renewable energy resources is a great indication of a viable future market and allows for certainty in development and creative deal structuring.

12. *Chapter 9 provides a qualitative discussion on potential opportunities to consider wholesale energy market reforms to more explicitly reflect the value of LSR resources. a. Is this an appropriate option to seek and consider? If not, why? b. If yes, what new mechanisms can be put into place by the Commission to more explicitly reflect the value of the benefits of LSR resources in wholesale markets? c. If yes, how does federal policy affect this option? d. Could these reforms lead to overall lower cost to consumers compared to the other options discussed in Chapter 6? If so, please explain.*

While a renewable capacity product could be created by the New York Independent System Operator in the future, we encourage the PSC to focus now on strengthening its RPS through long-term contracts and having a transparent, well-defined market to trade RECs. If NYISO were to explore a renewable capacity market, it should be non-discriminatory – like the

¹⁵ <http://osc.state.ny.us/audits/allaudits/093013/12f1.pdf>

current capacity market, and based on mechanisms that recognize the value of both new and existing renewable generation.

13. *Chapter 10 provides a number of conclusions to best advance the State's overall objective of accelerating the development of LSR resources as cost effectively as possible. These findings are also summarized in volume 1. a. With respect to a flexible procurement structure to ensure the selection of lowest-cost projects: i. Should utility owned generation (UOG) be allowed to compete with privately-owned projects in an open-source solicitation? ii. If so, should utility participation be capped at a certain percentage of total projects or percentage of individual project ownership? At what percentage levels should these caps be set? b. With respect to third party centralized solicitation and evaluation: In the event utilities are allowed to own any LSR projects, how could a third party administered solicitation level the playing field and mitigate the risk of bias in an open-source auction? C. With respect to having LSR procurements be conducted based on a planned budget, system needs, and other considerations: i. What methodology should be used as the basis for both project selection and deployment levels? ii. Can the procuring entity integrate LSR resources with distributed energy resources, such as storage and demand response, to increase the system and customer benefits of integrated system planning?*

Brookfield Renewable withholds comment, but notes that utility-owned generation can create problems of cross-subsidization by ratepayers, resulting in potentially inappropriate risk-transfer to ratepayers. This risk can be effectively managed by privately-owned companies, ultimately reducing overall risk to the New York ratepayers.

II. Conclusion

As described throughout this paper, New York receives a tremendous amount of value from existing renewable energy projects which it does not provide compensation to. With the existing need for clean energy through state, regional and federal environmental regulation, New York should strongly consider the combination of long-term contracts for renewable energy projects, including eligibility for Legacy privately-owned renewables that contribute to state RPS targets, alongside a functioning market-based REC-trading market. This will lead to the lowest costs for New York consumers as the state looks to meet its obligations and goals, and will

provide the most clarity for developers and owners of clean energy generation that is located in the state or can be imported into it. The state should also align programs with the statewide renewable energy target of 50% of electrical energy from renewables by 2025 in order to achieve the State's Climate Goals, and ensure that enforcement mechanisms are in place to ensure their achievement.

Dated: August 12, 2015