STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard	Case 03-E-0188
Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision	Case 14-M-0101
Proceeding on Motion of the Commission to Consider a Clean Energy Fund	Case 14-M-0094

PRINCIPLES FOR THE LARGE SCALE RENEWABLES TRACK OF THE REFORMING THE ENERGY VISION PROCEEDING

Sierra Club, Alliance for Clean Energy New York, American Wind Energy Association, Citizens Campaign for the Environment, Environmental Advocates of New York, National Wildlife Federation, Natural Resources Defense Council, the Nature Conservancy, Pace Energy and Climate Center, and Renewable Energy Long Island ("Joint Parties") respectfully submit these Principles for the Large Scale Renewables ("LSR") Track of the Reforming the Energy Vision Proceeding. Additionally, the Joint Parties call for a public comment period and a technical conference to be held following issuance of NYSERDA's LSR options paper.

Since its inception in 2004, the New York State Renewable Portfolio Standard ("RPS") has been a driver of clean energy investment in the state. The Main Tier of the RPS program to date is expected to generate $2.7 billion of direct economic investment in New York, at a benefit-cost ratio of $3 to $1, has added approximately 670 jobs annually to New York's workforce, and is expected to reduce CO_2 emissions by 50 million tons over the life of the projects.[1] Additionally, the Main Tier promotes fuel diversity, protects ratepayers from volatile gas prices and creates energy security and independence for New York residents.

All of these economic and environmental benefits occurred with total program costs expected to comprise less than 0.2% of total retail electricity expenditures, and perhaps more importantly, a cumulative net rate impact of essentially zero due to wholesale electricity price reductions resulting from the program. While New Yorkers spent over $22 billion on their electricity in 2013,[2] the RPS costs to date represent an extremely modest and cost-effective investment in emissions-free energy. Furthermore, every dollar invested in the RPS remains in New York, helping to reduce the dollars New Yorkers are currently sending out of state for economy-wide energy costs, estimated to be nearly $39 billion in 2012.[3]

[1] NYSERDA, "Annual Performance Report through December 31, 2014", at 13 (March 2015).
[2] U.S. Energy Information Administration, State Energy Data 2013: Updates by Energy Source, Table F22: Electricity Prices and Expenditure Estimates, 2013, *available at* http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_pr_es.html&sid=NY
[3] NYSERDA, "Patterns and Trends- New York State Energy Profiles: 1998-2012", at 2 (November 2014).

Due to the pending expiration of the RPS,[4] the Joint Parties fully concur with the Commission's recommendation in the recent Track 1 Order that "grid-scale renewable resources must be strategically developed to diversify the energy supply mix, hedge the volatility of fossil fuel prices and decrease greenhouse gas and other harmful emissions."[5] Not only will a new LSR program help to ensure continued renewable investment and economic development in New York State, it will also help New York meet Governor Cuomo's commitment to reducing climate disrupting pollution by 80 percent of 1990 levels by 2050[6] and the upcoming greenhouse gas ("GHG") requirements under the U.S. Environmental Protection's Agency's ("EPA") recently proposed Clean Power Plan. Currently, the Main Tier of the RPS is expected to reduce carbon dioxide ("CO_2") emissions by more than 50 million tons over the life of the program. A new and improved LSR program is essential to continue these emissions reductions and help meet New York's GHG reduction goals. As EPA stated, "the most cost-effective approach to reducing GHG emissions from the power sector under CAA section 111(d) is…emissions-reduction opportunities that states have already demonstrated to be successful in relying on lower- and zero-emitting generation and reduced electricity demand."[7]

The Joint Parties urge the Commission, as part of its goal to "develop a fulsome record regarding the key features of each proposal,"[8] to hold a public comment period and technical conference following issuance of NYSERDA's LSR options paper on June 1st in order to better guide NYSERDA and Commission staff in developing the new LSR program. As the Commission noted in the Track 1 Order, "concern about the future of renewable energy in New York was the most consistent theme among the hundreds of participants in the recent eight-city REV information sessions and public statement hearings."[9] To this end, we echo the Moreland Commission's concern that "certain customers or customer groups, who are not in a position to advocate for themselves, may feel marginalized when compared to utility companies and other special interest groups during proceedings before the PSC."[10] To further the REV goal of customer engagement and encourage meaningful public participation, we urge the Commission to hold a public comment period and technical conference following issuance of NYSERDA's LSR options paper.

In order to ensure the continued strategic development of LSR in New York, the Joint Parties respectfully submit the following principles to assist in NYSERDA's and the Commission's progress toward developing the LSR options paper by the Commission's June 1st deadline.

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[4] Despite the expiration of the RPS in 2015, the Commission's Track 1 Order directed NYSERDA to conduct an additional Main Tier solicitation in 2016.
[5] Case No. 14-M-0101, Order Adopting Regulatory Policy Framework and Implementation Plan, 82 (Feb. 26, 2015).
[6] *See* N.Y. Energy Planning Board, *2014 Draft New York State Energy Plan*, at 29, *available at* http://energyplan.ny.gov/Plans/2014.aspx.
[7] U.S. EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 F.R. 34850 (June 18, 2014).
[8] *Id.*
[9] Case No. 14-M-0101, Order Adopting Regulatory Policy Framework and Implementation Plan, 83 (Feb. 26, 2015).
[10] Moreland Commission Report, 42.

1. **The New LSR Program Should Be Coincident with a New Statewide Renewable Energy Target to Ensure At Least 50% of New York's Electric Energy is Obtained from Renewable Energy Sources by 2025 in order to Achieve the State's Climate Goals;**
2. **The New LSR Program Should Include Sufficient Enforcement Mechanisms to Ensure Achievement of the New 50% By 2025 Target;**
3. **The New LSR Program Should Consider a Utility-Procurement Model with Flexible Contracting Mechanisms such as Bundled Contracts and Long-Term PPAs in Order to Send a Clear Long-Term Signal to Renewable Energy Companies and Investors to Attract Them to New York;**
4. **The New LSR Program Should Be Consistent Statewide, Including Long Island; and**
5. **The LSR Track Should Maintain the Current RPS Eligibility Requirement and Foster Diverse Technologies, Particularly Offshore Wind.**

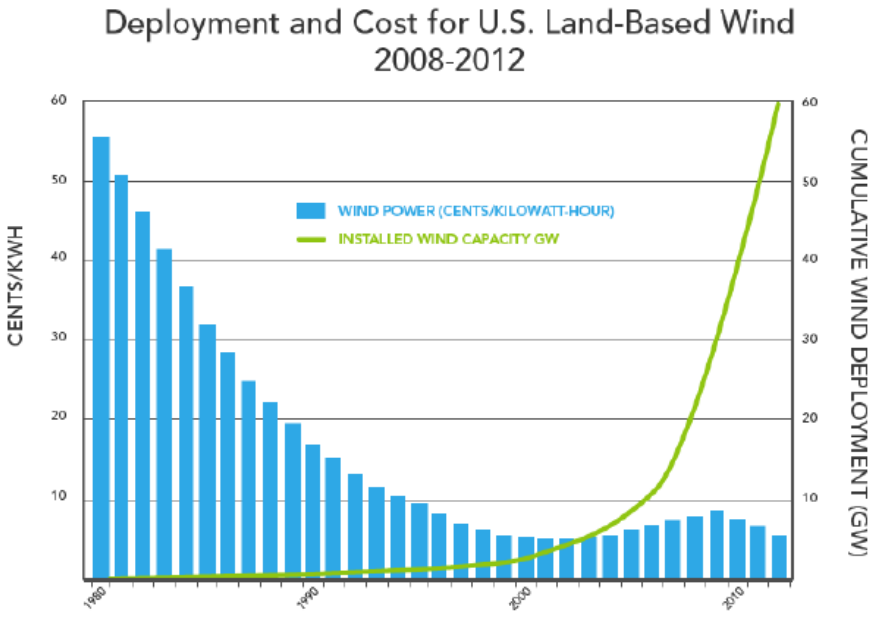
Background

New York's 2002 State Energy Plan ("Plan") warned that the State's primary energy sources are "imported from abroad, have significant and long-term effects on the environment, and ultimately face depletion" and predicted that "[u]ntil new and sustainable sources of energy are developed, the U.S. and New York will continue to experience the economic and social challenges of fossil fuel dependency."[11] Motivated by these concerns, the Plan recommended a study to determine the feasibility of establishing a statewide RPS.[12] In February 2003, the New York Public Service Commission ("Commission"), citing concerns about the "finite supply of natural gas and other fossil fuels,"[13] instituted a process to develop a "renewable portfolio standard for electric energy retailed in New York State."[14] That process was finalized in September 2004 with the formal adoption of a goal to "increase the proportion of electricity attributable to renewable resources to at least 25 percent of electric energy used in New York State by the end of 2013."[15] The Commission split the RPS into two tiers: the Main Tier for utility-scale renewable projects and the Customer-Sited Tier for behind-the-meter renewable resources. In January 2010, the Commission modified the RPS by increasing the renewable goal from 25% to 30%, establishing a renewable generation target of 9.8 million MWh/yr from Main Tier solicitations and 0.6 million MWh/year for Customer-Sited resources, and extending the deadline to 2015.[16] Total Main Tier operating capacity through December 31, 2014 was approximately 1,854 MW, while Customer-Sited Tier capacity was approximately 230 MW.[17] Thus, the Main Tier is responsible for approximately 89% of the renewable energy procured under the existing RPS.

The RPS Main Tier has thus far included wind, hydroelectric, biogas, anaerobic digesters, fuel cells and biomass resources. Wind energy, the largest contributor to the RPS, grew from 48

[11] New York State Energy Plan at 1-1 (June 2002).
[12] *Id.* at 1-3.
[13] Case No. 03-E-0188, Order Instituting Proceeding, at 1 (Feb. 19, 2003).
[14] *Id.*, 2.
[15] Case No. 03-E-0188, Order Regarding Retail Renewable Portfolio Standard, at 3 (Sept. 24, 2004).
[16] Case No. 03-E-0188, Order Establishing New RPS Goal and Resolving Main Tier Issues, at 7 (Jan. 8, 2010).
[17] NYSERDA, "Annual Performance Report through December 31, 2014", at 13 (March 2015).

MW in 2005 to 1,851 MW in 2014.[18] Worldwide, wind turbine capacity factors grew from a range of 10-36% in 2009 to 32-45% land-based and 35-50% offshore in 2014.[19] As shown in the graph below, a U.S. Department of Energy study in September 2013 found that "the average cost of new wind power has also started to recede, and deployment of wind turbines has skyrocketed."[20]



On July 2, 2014, the Commission ordered NYSERDA to revise its RPS Main Tier contracting structure by allowing for 20-year contracts in order to achieve "more robust solicitations and lower bid prices, thus lowering overall program costs, even after accounting for the longer contract terms."[21] The Commission also directed NYSERDA to issue "at least one additional solicitation in 2015…with the flexibility to offer additional solicitations when the market conditions are appropriate to do so, in consultation with staff."[22]

Based on the Commission's Order, NYSERDA issued its 9th Main Tier solicitation for $250 million on July 28, 2014. That robust and extremely successful solicitation, utilizing new 20-year contracting mechanisms, produced 164 MW of new renewable capacity at an average REC price of $22.96, a 65% price decrease from NYSERDA's 2013 solicitation and an abrupt halt to the steady increase in REC prices over the past five years. NYSERDA recently released its 10th Main Tier solicitation for $160 million in new renewable projects.

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[18] *Id.*
[19] REV Draft EIS, 5-29.
[20] US Department of Energy, Revolution Now: The Future Arrives for Four Clean Energy Technologies, 3 (Sept. 17, 2013).
[21] Case No. 03-E-0188, Order Authorizing Modifications to the Main Tier Solicitation Contract Term, at 12-13 (Jul. 2, 2014).
[22] *Id.*, 16.

On February 26, 2015, the Commission issued its Track 1 Order requiring Commission staff and NYSERDA to "prepare an LSR options paper to be issued for public comment no later than June 1, 2015."[23] The Track 1 Order also called for "additional process and comment opportunity to develop a fulsome record regarding the key features of each substantive proposal."[24]

Five Principles for the LSR Track in REV

1. The New LSR Program Should Be Coincident with a New Statewide Renewable Energy Target to Ensure At Least 50% of New York's Electric Energy Is Obtained from Renewable Energy Sources by 2025, in Order to Achieve New York's Climate Goals

Both the Regional Greenhouse Gas Initiative ("RGGI") and the Clean Power Plan assume that New York's 30 percent RPS will be achieved and significantly exceeded. In order to continue to develop New York's renewable energy portfolio and help New York achieve its GHG reduction goals and upcoming Clean Power Plan requirements, the Commission should adopt a new enforceable 50% by 2025 target for electricity procured from renewable energy sources. The new 50% target is in line with NYSERDA's recent renewable potential assessment, which found current economic potential of 30% and bounded technical potential of 70%.[25]

In establishing the 50% by 2025 target, the Commission should incorporate existing renewable generation, increased renewable distributed energy resources through REV, and the new long-term large-scale renewable program. Similar to the Customer-Sited Tier and the Main Tier of the RPS, the Commission should recognize that both distributed, smaller-scale renewables and large-scale renewables will contribute to the overall 50% by 2025 target. Specific goals for the different classes of renewable energy will provide a much-needed backstop as the REV vision begins to unfold.

2. The New LSR Program Should Include Sufficient Enforcement Mechanisms to Ensure Achievement of the New 50% By 2025 Target

Given that New York fell short of meeting its 2013 and 2015 RPS targets, the Commission should ensure that proper accountability mechanisms are in place to ensure that the new 50% by 2025 target will be achieved. Other states, such as Massachusetts and Connecticut, have accomplished this by setting short-term procurement requirements for each distribution utility and requiring alternative compliance payments ("ACPs") should the utilities fail to meet their short-term goals. The Commission should follow these examples by setting short-term targets and adjusting generation procurements accordingly in order to meet New York's renewable and GHG reduction targets.

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[23] Case No. 14-M-0101, Order Adopting Regulatory Policy Framework and Implementation Plan, 83 (Feb. 26, 2015).
[24] *Id.*
[25] NYSERDA, Energy Efficiency and Renewable Energy Potential Study of New York: Summary, at 10 (April 2014), available at https://www.nyserda.ny.gov/Energy-Data-and-Prices-Planning-and-Policy/Energy-PricesData-and-Reports/EA-Reports-and-Studies/EERE-Potential-Studies.aspx.

3. The New LSR Program Should Consider a Utility-Procurement Model with Flexible Contracting Mechanisms such as Bundled Contracts and Long-Term PPAs, In Order to Send a Clear, Long-Term Signal to Renewable Energy Companies and Investors to Attract Them to New York

The Joint Parties strongly support the REV Staff Proposal's recommendation that the Main Tier's "REC-only program approach should transition to bundled contracts for energy and RECs between the utilities and competitively selected projects"[26] and that "procurement of supply-side large scale renewables become the responsibility of utilities."[27] The Commission should also explore approaches under which a state entity, such as NYSERDA or NYPA, manages a central procurement process and, upon the selection of winning bids, either requires utilities to enter into power purchase agreements ("PPAs") or allows them to access the winning bidders or use their own procurement process. The Commission could also consider a model in which NYSERDA or NYPA enters into long-term PPAs with renewable energy generators and subsequently sells the RECs, energy, or both to distribution utilities.

Given NYSERDA's success with the most recent 2014 Main Tier solicitation, the new program should consider a variety of contracting policies, including long-term PPAs, contracts-for-differences, feed-in tariffs and standard offer/bundled contracts, which the Commission stated "may be more attractive to some developers and also provide a hedge that could protect rate-payers from volatile energy prices."[28] NYSERDA itself recommended "moving away from REC-only contracts as a means to attract additional renewable energy projects to New York."[29] Implementation of these flexible contracting policies is "appropriate and necessary to the future success of the RPS Main Tier in achieving the substantial environmental, economic, and other benefits that accompany renewable development in the State."[30]

4. The New LSR Program Should Be Consistent Statewide, Including Long Island

The Commission should establish required procurement amounts for each utility in megawatt-hours, for each year, based on projected total load for that utility, with specific upstate and downstate procurement requirements, including Long Island. To incorporate Long Island, the Commission should utilize its powers established in the Long Island Power Authority Reform Act of 2013 to ensure a single, unified energy policy for the State and bring meaningful amounts of clean energy, such as offshore wind, to a region that lags significantly behind the rest of the State.

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[26] Case No. 14-M-0101, Developing the REV Market in New York: DPS Staff Straw Proposal on Track One Issues, 52 (Aug. 22, 2014).
[27] *Id.*, 51.
[28] Order Approving Petition. On July 2, 2014, the Commission approved a petition seeking 20-year REC contracts and at least two Main Tier solicitations in 2014 and 2015. Though the Commission acknowledged the benefits of contracts-for-differences and other flexible contracting mechanisms, the Commission believed that the Clean Energy Fund would be "the proper venue to examine the future of the RPS program beyond 2015, including the use of alternative incentive mechanisms such as CfDs."
[29] Case No. 14-M-0094, Clean Energy Fund Proposal, 31 (Sept. 23, 2014).
[30] *Id.*

One possible solution to correct this geographic disparity would be to incorporate a local delivery requirement to incentivize renewable generation near New York City and Long Island. Such a solution would ensure that the RPS is administered "in a manner that ensures an equitable allocation of benefits and costs to the downstate regions that bear a significant portion of the overall $3 billion cost to achieve the RPS goals."[31]

5. The LSR Track Should Maintain the Current RPS Eligibility Requirements and Foster Diverse Technologies, Particularly Offshore Wind.

In furtherance of New York's public health goals and long-term GHG reduction strategy, the Joint Parties urge NYSERDA to maintain the current RPS definition of "renewable" for the new LSR program, which includes wind, solar, hydropower, clean biomass, anaerobic digestion, landfill gas, tidal, and fuel cells. The eligibility of diverse renewable energy technologies in New York is a hallmark of the current RPS Main Tier and should continue in the policy developed in the LSR Track.

The New LSR program should also encourage offshore wind development as a key component in helping New York achieve its carbon reduction goals. For example, NYSERDA's *Energy Efficiency and Renewable Energy Potential Study of New York State*[32] identifies a technical bounded potential of 25,000 GWh in 2030, but a current economic potential of 2,500 GWh. The issue of cost reductions, which would increase the proportion of the technical potential that becomes economic, was addressed in *New York Offshore Wind Cost Reduction Study*, a March 2015 report commissioned for NYSERDA by the University of Delaware.[33] This study reports that offshore wind energy could become the most viable option for delivering large-scale renewable electricity generation to New York City and Long Island; that technology advances in the offshore wind energy industry are currently reducing costs; and that New York State could take actions to further reduce costs, citing a possible 50% reduction. The study lists several potential actions New York State could take, but the most significant cost reductions would result from "a long term commitment to a pipeline of projects" which could reportedly reduce costs by approximately 30%. Accordingly, the LSR Track should be viewed as a key policy mechanism for making this commitment to a pipeline of projects in order to realize these cost reductions and the environmental, system efficiency, locational, and economic benefits of a booming offshore wind industry.

Like all of the eligible renewable energy technologies, offshore wind can diversify New York's energy portfolio and help reduce harmful pollution. Unlike other technologies, offshore wind has not yet been deployed in New York, and thereby represents a significant yet-untapped potential. Installation and operation of offshore wind turbines will generate thousands of jobs and economic benefits to New York's coastal communities recently devastated by Superstorm Sandy. Furthermore, offshore wind could also dramatically reduce electricity prices for New Yorkers. As a 2011 U.S. Department of Energy study found, the "close proximity of offshore wind

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[31] *See* Case 03-E-0188, City of New York Comments, at 16 (Oct. 28, 2013).
[32] NYSERDA, *Energy Efficiency and Renewable Energy Potential Study for New York State*, (April 2014).
[33] University of Delaware Special Initiative on Offshore Wind, *New York Offshore Wind Cost Reduction Study*, (February 2015).

resources to major electricity demand centers could allow offshore wind to compete relatively quickly with fossil fuel-based electricity generation in many coastal areas."[34]

There are likely a variety of RPS features that could be integrated into a next generation RPS to encourage offshore wind development and bring down project costs, such as a local delivery requirement. Another potential mechanism to assist in financing for offshore wind is the Green Bank. As NYSERDA argued in its initial Green Bank petition, one of the goals of the Green Bank is to "facilitate the availability of financing to projects that depend upon long-term financing, such as offshore utility-scale wind projects and other larger scale clean energy projects that traditionally operate through long-term power-purchase agreements."[35].

Conclusion

New York is graced with bountiful renewable energy resources, including significant offshore wind resources off the Atlantic coast, thousands of megawatts of land-based wind resources upstate, hydropower resources upstate, and solar resources distributed throughout the state. The RPS program has been highly successful at investing in New York's renewable resources, creating hundreds of jobs for New Yorkers in the process, and improving the health of New Yorkers as the State transitions away from old and highly polluting fossil fuel generation.

The continuation and evolution of New York's large-scale renewables program can help further transition New York into a clean energy economy, meet its GHG reduction goals, achieve the goals of REV, and establish New York as a national clean energy leader. This is why it is imperative that New York's LSR program be continued and enhanced.

Accordingly, and in light of the Principles summarized above, the Joint Parties respectfully request that the Commission hold a public comment period and technical conference in the new LSR Track following issuance of NYSERDA's options paper. A new and improved LSR program will ensure the uninterrupted progress of New York's burgeoning renewable energy industry, providing critical certainty and predictability for renewable developers and allowing New Yorkers to profit from the billions of dollars in economic, public health, and environmental benefits which flow from new renewable projects.

[34] U.S. Department of Energy, "A National Offshore Wind Strategy: Creating an Offshore Wind Energy Industry in the United States", at 6 (February 2011).
[35] Case 13-M-0412 – Petition of New York State Energy Research and Development Authority to Provide Initial Capitalization for the New York Green Bank, at 5 (Sept. 9, 2013).

Respectfully submitted on the 16th day of April, 2015.

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