

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 15-E-0302 — In the Matter of the Implementation of a Large-Scale Renewable Program
and a Clean Energy Standard

**REPLY COMMENTS OF
THE ALLIANCE FOR CLEAN ENERGY NEW YORK, SOLAR
ENERGY INDUSTRIES ASSOCIATION, AMERICAN WIND ENERGY
ASSOCIATION, ADVANCED ENERGY ECONOMY INSTITUTE,
NORTHEAST CLEAN ENERGY COUNCIL, and VOTE SOLAR**

May 13, 2016

I. INTRODUCTION

The Alliance for Clean Energy New York, American Wind Energy Association, Advanced Energy Economy Institute, Solar Energy Industries Association, Northeast Clean Energy Council, and Vote Solar (“Renewable Energy Industry”) respectfully submit the following reply comments in the above-referenced proceeding.

a. Numerous comments demonstrated support for 50% renewable energy mandate, a position shared by the majority of New Yorkers, and there is some common ground between the renewable energy industry and utilities.

We commend the Commission and staff at the Department of Public Service (DPS) for their efforts to facilitate a productive discussion about the Clean Energy Standard (CES). In reviewing the initial comments of the active parties in this proceeding, we first and foremost note the high level of support for New York State’s efforts to achieve the 50% renewable energy mandate. Resounding themes of submitted comments were general support for a transition to a cleaner grid; enthusiastic support for the 50% CES; support for inclusion of a diversity of clean and renewable technologies; and identification of New York State as a leader in clean energy policy as a result of this 50% commitment. Among the many supportive comments, we highlight the following from governmental, labor and environmental stakeholders:

- The City of New York "urges the Commission to adopt the Clean Energy Standard proposed in the White Paper"¹
- The New York State Department of Environmental Conservation says the program proposed in the White paper "takes the important first steps in recognizing what is needed to reduce greenhouse gas emissions for the next decade..."²
- The New York Power Authority fully supports the 50 by 30 mandate;
- The New York Municipal Power Agency supports the establishment of the CES;
- The Labor Coalition is supportive of efforts "to increase electric generation from renewable resources and achieve the goal of the 2015 State Energy Plan..."³;
- The Clean Energy Organizations Collaborative supports establishing the 50 percent renewable energy goal; and
- The Environmental Defense Fund also supports the renewable energy goals and goes on to say the "scale of what is envisioned in the CES White Paper is appropriately aligned with the need in context with the State Energy Plan goals."⁴[4]

As discussed by numerous commenters, renewable energy provides many direct and indirect benefits to New Yorkers, chief among them being reductions in criteria pollutants, greenhouse gases, and other environmental impacts; much-needed diversification and modernization of our energy infrastructure; and a solid foundation for sustainable economic growth. The recently issued *Clean Jobs New York Report*⁵ highlighted that there are more than 12,500 individuals currently employed in the renewable energy industry in New York State, including solar, wind, bioenergy/biomass, low impact hydro, and geothermal, and that the companies employing these individuals are projecting 6% growth in employment levels in 2016. Creation of the 50% Clean Energy Standard will be a clear market signal to this industry that will result in further job growth.

The support offered by various parties in this proceeding reflects the sentiments expressed in a recent poll conducted for The Nature Conservancy⁶ which found that New Yorkers are broadly

¹ Case 15-E-0302, Comments of NYC (Apr. 22, 2016) at 5.

² Case 15-E-0302, Comments of NYS DEC (Apr. 22, 2016) at 2.

³ Case 15-E-0302, Comments of Labor Coalition, (Apr. 22, 2016) at 1-2.

⁴ Case 15-E-0302, Comments of EDF (Apr. 22, 2016) at 3.

⁵ *Clean Jobs New York: A Comprehensive Analysis of Clean Energy Jobs in New York* was issued in May 2016 and prepared by BW Research Partnership and the Economic Advancement Research Institute for Environmental Entrepreneurs, the Alliance for Clean Energy New York, New York Sustainable Business Alliance, and New Yorkers for Clean Power.

⁶ The Nature Conservancy recently conducted research through polling on key questions related to the REV process and its intended outcomes. The poll was conducted by the bipartisan research team of Fairbank, Maslin, Maullin, Metz & Associates (FM3) and Public Opinion Strategies (POS). The telephone survey reached 801 likely November 2016 general election voters in New York State to assess attitudes toward clean energy and support for Reforming

concerned about global warming, strongly support the Reforming the Energy Vision (REV) initiative and its component projects, and are willing to take action — including paying up to \$10 more monthly on their energy bills — to invest in REV personally. New Yorkers strongly support the Clean Energy Standard. Based on these polling results, the average voter believes the state already uses 25 percent clean energy, but believes the state should use 70 percent. New Yorkers strongly support using more solar power (94% “support” and 74% “strongly support” it); more wind power (89% “support”) and hydropower (88% “support”). Based on questioning, support for the Clean Energy Standard is nearly universal. Fully 90 percent of New Yorkers support the Governor’s goal of 50 percent clean energy by 2030. This support is also robust across major demographic groups, including:

- *86% of men and 92% of women;*
- *91% of New York City voters, 88% in the suburbs, and 89% in the remainder of the state;*
- *93% of Democrats, 88% of independents and 84% of Republicans;*
- *96% of liberal voters support it (85% “strongly”), 92% of independents and 81% of conservatives.*

Perhaps most importantly, based on this polling, many New Yorkers are willing to pay up to \$10 per month to implement REV. Seven in ten voters find a \$2 monthly increase “completely acceptable,” and increasing utility bills by \$10 monthly is “completely” or “somewhat acceptable” to 56 percent.

We are also very encouraged by the diverse cross section of advanced clean energy technologies represented by parties participating in this proceeding and supporting the 50% mandate, including land-based and offshore wind, hydropower, solar, fuel cells, bioenergy, and energy storage. Each of these technologies has the ability to make meaningful contributions to the State's clean energy and climate goals. Most of these technologies are well established in New York but have significant remaining development potential. Others, such as offshore wind, represent enormous untapped potential. All of these technologies can increase their investment and job creation in New York State under a successful CES structure.

There was some common ground between the positions of the renewable energy industry and the utilities (both of the two utility filings). Both the renewable energy industry and the utilities generally support utilization of a competitive procurement process, regular resource solicitations, and the inclusion of all jurisdictional and non-jurisdictional load-serving entities (LSEs) in the CES. We generally agreed with the utility filings on the need to ensure appropriate cost recovery and the use of NYGATS to track the generation of renewable energy credits (RECs), as well as the need for clarity in the ownership of RECs (particularly from distributed technologies). We also agree with utilities in support of the continued development of voluntary market activity in renewables procurement, as part of a portfolio of procurement approaches to achieving 50%. Our major divergence in opinion with the utility filings concerns the core procurement model to be utilized in the CES. As described in our Initial Comments and herein, the renewable energy

the Energy Vision (REV), as well as the willingness of New York voters to pay for clean energy options, to change energy use behaviors, and to engage in new technologies options.

industry recognizes that utility-backed PPAs are a tried and true procurement structure that can accelerate renewables development activity to the scale necessary to achieve the 50% goal, and can do so at least-cost, as borne out in the LSR Options Paper and the CES White Paper Cost Study. Further, the PPA approach can be implemented in a manner that is fully consistent with competitive wholesale markets and federal law, and consistent with existing restrictions on utility-ownership of generation assets.

II. COMMENTS

In the following comments we respond to some of the specific issues and concerns raised by other active parties, and reaffirm the principles that will produce the most successful and sustainable CES program. These Comments cover the following eleven issues:

- 1. Renewable Energy Procurement with PPAs Is Consistent with Competitive Markets**
- 2. Procurement With PPAs is Cost-effective and Balances Risks**
- 3. The *Hughes v. Talen Energy Marketing* Decision Does Not Preclude State Action to Mandate PPAs**
- 4. CES Tiers are Essential to Meet Policy Goals and CES Should Support Diverse Technologies, especially Offshore Wind**
- 5. CES Projections Highlight the Need for Binding Energy Efficiency Targets**
- 6. CES Implementation Should be Timely, with a Procurement Process in 2017**
- 7. Firm Annual Targets are Necessary for 2017 – 2030**
- 8. CES Should be Equitably Supported Across Ratepayers**
- 9. CES Portfolio Approach Should Exclude Utility Ownership of Generation**
- 10. CES Can Be Successfully Integrated with REV**
- 11. A Sustainable CES Program Cannot Rely on Large Canadian Hydropower**

Issue 1:

Renewable Energy Procurement with PPAs Is Consistent with Competitive Markets

The Initial Comments of the New York Independent System Operator (NYISO) raise a number of concerns about the use of bundled PPAs and compatibility with competitive markets, stating the concern that PPAs will insulate renewable generators from price signals and create inefficiencies in the market, even threatening reliability by undermining revenue adequacy for resources necessary to balance renewable energy variability. Similarly, the Independent Power Producers of New York (IPPNY) raises the general concern of “...not impugning competitive markets.”

Our Initial Comments addressed this issue in part by suggesting that in evaluating competitive bids, the entities making procurement decisions could use an “implied REC” approach in order to maintain market signals related to location and time of generation as a key aspect of a procurement model that continues to recognize the unique value of renewable energy resources to maximize ratepayer value and achieve resource diversity. The use of an “implied REC” model, similar to that being utilized by the state of Massachusetts, can address these concerns while providing all of the benefits of long-term, bundled PPAs. Under this approach, offerors would present a single, bundled price. However, for evaluation purposes, those prices would be broken into two components: energy and RECs. Winning offers would be selected based on the least cost REC. Developers (and those reviewing offers) would evaluate the otherwise expected energy and capacity revenues in making their offers. The implied REC is the difference between a projects’ required offer price and the otherwise expected energy and capacity revenues for that project. Projects with relatively higher energy and capacity value will have a lower implied REC and vice versa, other factors being equal. As a result, the use of an implied REC as the offer evaluation tool encourages projects that would otherwise expect to receive higher energy and capacity revenue over projects with lower value. The implied REC approach to evaluating offers thereby maintains the market compatibility of the unbundled REC product, and can encourage a more diversified portfolio of renewable projects, both by location and technology, while enabling the benefits of long-term, bundled PPAs to flow to electricity consumers. Under the approach, the implied REC would be used only for evaluation purposes and does not modify the bid price itself. The amount paid to a generation owner would be linked to the PPA and not to prices in the wholesale markets.

Second, effective transmission investments can eliminate many of NYISO’s concerns regarding negative pricing and “price insulation” by reducing congestion, thereby reducing the relevance of location signals in pricing. Transmission investments, as NYISO points out in their Initial Comments, will be necessary to meet the 50% by 2030 goal and should accrue co-benefits of less congestion and more reliability. The renewable energy industry also recognizes and supports the need for additional transmission investment.

Third, we note that the NYISO’s Locational Based Marginal Pricing (“LBMP”) system was implemented after the State’s power plants had already achieved capital recovery through vertically integrated guaranteed rates of return. Therefore, existing, conventional generators did not need long-term incentive structures to ensure capital recovery. As a result, LBMP has been extremely effective at encouraging existing power plants to maximize their efficiency and reduce variable costs, leading to savings for the State’s electricity consumers. Now, the policy goal is to incrementally transform the State’s electricity sector to a system whereby 50% of the electricity used is sourced from clean and renewable technologies. Thousands of megawatts of new resources will need to be added to the system. And while LBMP systems have proven to be very successful in organized competitive wholesale markets in encouraging efficiencies from existing, capitalized power plants, they have proven to be much less successful in encouraging new generation, largely due to the lack of symmetry between the LBMP market’s very short-term price signal and the long-term capital recovery requirements of new generation resources, a requirement that did not have to be originally addressed in the NYISO’s LBMP market because competing generators had already been capitalized through vertical integration and a guaranteed rate of return. Given this characteristic of the wholesale market, the 50% objective of the CES

program creates the imperative for an incentive structure that provides for long-term capital recovery, such as a long-term, bundled PPAs.

Fourth, in their initial comments, the Solar Parties argued that smaller scale competitive procurements for renewables could potentially provide more accurate price signals to meet system needs. The Solar Parties cited California's Renewable Auction Mechanism (RAM) or procurement models in Massachusetts and Connecticut as examples of effective efforts. Since 2010, California's RAM effort, for example, helped procure more than 1.5 GW of renewable generation through PPAs. Aimed at resources between 3-20 megawatts, investor owned utilities hold two technology neutral auctions per year based on meeting their specific system needs. Similar needs-based procurements by New England states have produced impressive results, encouraged competitive markets for renewables, and restrained cost.

In fact, the concerns raised by the NYISO should be viewed not as an argument against the PPA procurement model which is proven elsewhere and is critical to attracting the development and investment necessary to get new projects built at scale but an argument in favor of a focused effort to identify specific transmission upgrades and enhancements necessary that will allow for cost-effective renewables integration, while also providing for reliability enhancements and reduced congestion. By including transmission planning to account for the new 50% mandate, NYISO can ensure benefits to electricity consumers that outweigh costs, and address a number of the concerns expressed regarding negative pricing.

Several commenters, including the utilities, support continuation of the NYSERDA REC-only contracting structure, with costs collected via a surcharge. While the renewable energy industry would support some portion of the CES obligation being procured under this structure, we reiterate our position from the Initial Comments that exclusive reliance on this approach did not achieve the State's 30% by 2015 goal; did not have accountability and enforceability; cannot achieve the scale necessary for CES success; and will cost more, as borne out by the analysis in both the LSR Options Paper and the CES Cost Study. The REC-only contracts do not bring the long-term price stability value of renewable energy generation to the ratepayers, and will not achieve policy goals at least cost, if at all.

Evidence from PJM and ISO-NE demonstrates that REC-only RPS markets are insufficient to encourage robust investments in merchant renewable energy generation. There are nearly 6,700 MW of commercial scale wind energy in PJM, of which just under 1,200 MW is merchant, or about 18%. Since 2012, there has only been one merchant commercial scale wind farm constructed in PJM – a 175 MW wind farm in Illinois which became operational in 2015. Similarly, in ISO-NE only 126 out of 1,015 MW of grid-tied wind energy is merchant, or about 12%. There have been no merchant projects constructed in New England since 2012.⁷ This record demonstrates the essential need for long-term contracting for renewable energy and RECs in order to encourage project development necessary for CES compliance.

⁷ American Wind Energy Association Market Database Pro.

Issue 2:

Procurement With Power Purchase Agreements is Cost-effective and Balances Risks

Several commenters raised issues of risk shifting in a PPA procurement model, citing unacceptable risks and excessive costs, even though the State's analysis in this proceeding has shown the opposite: lower costs. The CES White Paper Cost Study, for example, compared the gross program costs for three procurement scenarios: 100% PPA, 100% REC-only, and a 50/50 split (which was the base case). The base case had a projected total gross cost (i.e. not accounting for avoided carbon benefits or any other benefits) of \$453 million for the procurement up to 2023 (but out to 2042 to cover the life of the contracts), which represented a modest .43% impact on bills in 2023. In contrast, the procurement model of 100% PPAs had a gross cost of less than zero: a benefit of \$269 million, because the PPAs allowed ratepayers to benefit from the long-term price stability of renewable energy. This scenario had an estimated 2023 bill impact of just .28%. The 100% REC-only procurement was more costly, with a gross cost of \$1.18B and a 2023 bill impact of .62%. This finding in the Cost Study was fully supported by analysis in the LSR Options Paper in this same proceeding.

The structure of the proposed PPAs is fundamentally different than customer risk under vertically-integrated rate of return structures. The latter provided returns on capital regardless of performance. Conversely, performance risk for renewable energy PPAs is still on the generators. If generators fail to meet their delivery requirements they will not be paid, and will have no recourse to seek additional financial support to achieve revenue adequacy. Customers, in this case, only incur "price risk." However, to the extent solicitations are competitive this risk is fundamentally muted since customers will be paying the "minimal" possible amount to bring required renewable energy resources online. In a pay as bid competitive process as proposed by the renewable energy industry, projects will only be paid their costs plus a reasonable risk-weighted rate of return. This is the exact amount of revenue any new required renewable energy project must achieve to be brought online. In fact, the "price risk" customers potentially incur through PPAs is much less than in other structures, including the REC-only structure advocated by the NYISO and other parties, in which generators could conceivably achieve revenues above their cost plus a reasonable risk-weighted rate of return either through rising energy or REC prices.

Despite analysis in the LSR Options Paper and the CES White Paper Cost Study (which we will comment on more extensively at a later date) that showed lower gross costs and higher net benefits for PPAs vs. REC-only long-term contracting, several parties raise issues related to the cost risk of PPAs. These arguments generally state that if energy prices fall meaningfully, the long-term bundled PPA would leave electricity consumers exposed to higher prices through the long-term contract incentive. It is worth stating that in that scenario, the electricity consumer would simultaneously be experiencing lower energy prices, which would certainly mitigate the exposure to relatively higher PPA prices. Further, the opposite is also true: if electricity prices rise, then electricity consumers will benefit. In this scenario, the REC-only product is a poor choice, since electricity consumers would be paying more for renewable energy than the project's costs and a risk-weighted rate of return. As such, in this scenario the REC-only structure is actually shifting risk from sellers onto buyers, and eliminating the hedge value of renewable energy. It is up to New York policymakers to determine the likelihood that

historically low wholesale electricity prices will fall even further or if they are likely to rise over time. In the latter case, long-term, bundled PPAs are protecting electricity consumers from changes in prices. The unbundled REC product, as demonstrated by the example above, is not inherently less risky for electricity consumers than a long-term bundled PPA and, in fact, only a long-term fixed product can really protect electricity consumers from electricity price fluctuations.

One of the primary benefits of renewable energy is that it is the only resource that can provide a long-term, fixed price for up to twenty or twenty-five years. However, electricity consumers only benefit from this unique characteristic if they lock in renewable energy prices over the long term. The REC-only product does not achieve this outcome and ensures that electricity consumers always pay a premium for renewable energy, even if LBMPs rise in the future.

Several commenters assert that entering into PPA's under the CES would put utilities in the same situation as New York has experienced in the past under the "Six-Cent Law." In citing this history, however, commenters failed to mention the most important and fundamental difference between that policy and a new CES program that involves PPAs: competition. A new 50% CES should be designed to have renewable energy developers competing to achieve the least cost. A procurement entity, such as joint utilities or a third party, would be evaluating and selecting competing bids based on pre-established criteria, which could potentially include other factors (e.g. local economic development benefits) but most certainly would focus on least cost. The PPA requirement will also be limited in size. Well-structured and competitive procurements will mean that the clean energy that is necessary to achieve the policy goal will be obtained at the lowest price. It is also worth noting that these hedges can be beneficial for ratepayers for not only Tier 1, but also for Tier 2 projects. For Tier 2 projects, as they are already operating they may not require contracts as long as twenty years – so the Commission should consider contract lengths between five and twenty years.

Issue 3:

The *Hughes v. Talen Energy Marketing* Decision Does Not Preclude State Action to Mandate PPAs

The Initial Comments of the Entergy Entities state that: "Adopting a market-based CES program is further warranted in light of the United States Supreme Court's decision in Hughes. et al. v. Talen Energy Marketing, LLC, issued earlier this week. In Hughes, the Supreme Court addressed whether the State of Maryland could take actions to address a perceived supply shortfall and ensure the reliability of its system by providing for a payment that, in effect, differed from the rate established by the Federal Energy Regulatory Commission ("FERC"). Finding "...States may not seek to achieve ends, however, legitimate, through regulatory means that intrude on FERC's authority over interstate rates..." the Supreme Court reaffirmed FERC's exclusive jurisdiction over the rates, terms and conditions of wholesale service and held States are proscribed from directing actions that set rates for wholesale electricity products."

This is a misreading of the holding in Hughes, which the Court narrowly limited to the specific type of contract for differences established by the State of Maryland in the case. The opinion is

clear that the pre-empted characteristic of those contracts for differences is that they did not transfer ownership of capacity from one party to another outside an auction, but rather specifically required the parties to operate within the auction, mandating that the supplier bid into, and clear the PJM capacity auction, and indexing payment to the cost of the supplier's capacity sales in that auction. In fact, the opinion clearly states that, "Neither Maryland nor other States are foreclosed from encouraging production of new or clean generation through measures that do not condition payment of funds on capacity clearing the auction." This clearly provides significant latitude for the PSC to craft regulations that allow for competitively bid long-term contracts as a mechanism to secure clean energy resources. Nothing in the DPS Staff CES White Paper suggests the type of "bid-and-clear" requirement that was pre-empted in *Hughes*.

Issue 4:

CES Tiers are Essential to Meet Policy Goals and CES Should Support Diverse Technologies, especially Offshore Wind

Entergy's comments argue for a single CES approach rather than the tiered approach proposed in the White Paper, articulating a preference for a CES structure that has no tiers nor a separation between the renewable energy and the nuclear energy portions of the program, as well as a structure that is unbundled from energy in some form. In addition to the fact that this would be contrary to the Governor's announcement that 50% of electricity used would come from clean and renewable sources, as well as the adopted State Energy Plan goals, the primary problem with this approach is that it will undoubtedly be substantially more costly than the White Paper proposal. The "clean energy credits" that Entergy is recommending would be priced at the marginal value of credits, thereby providing higher REC payments than necessary to nuclear plants and increasing the cost of the CES program. Internalization through wholesale prices of marginal renewable energy and carbon costs will also raise prices across the wholesale market, thereby potentially awarding windfall profits to generators that are neither renewable nor carbon-free. Additionally, unbundled clean energy credits would not likely encourage sufficient cost-effective renewable energy investment to meet the state's renewable energy and carbon dioxide reduction goals. Finally, the tier approach is an elegant structure for achieving several policy goals at least cost. This includes keeping existing renewable energy generators to the New York market (Tier 2) and overcoming barriers to the establishment of a new industry with significant development potential (offshore wind tier).

We reiterate our support for an offshore wind tier that could successfully attract the offshore wind industry to New York State to create jobs, promote renewable energy development for the downstate region, and assist in achieving the 50% mandate. Support for offshore wind was articulated in comments by NYPA, the City of New York ("City"), and the Clean Energy Organizations Collaborative (CEOC). As previously stated, achieving Governor Cuomo's ambitious goal of 50% will require a diverse portfolio of new resources. At the same time that these new resources are being developed, certain regions within the State will require the construction of new capacity resources to maintain reliability. An offshore wind tier could assist in delivering the greatest value to New York's ratepayers by supporting renewables development that also helps defer or offset the need to build conventional power plants to meet capacity or reliability needs.

The need for new capacity is most relevant downstate, in New York City and Long Island. Geographic and transmission constraints currently limit the ability to develop onshore wind and utility-scale solar to serve this need. Offshore wind is an abundant resource that can, when built at scale, cost-effectively defer the need for building other new capacity downstate. Our support for an offshore wind tier is, in part, predicated on this dynamic. In their comments, the City also raised concerns about geographic equity. This is fundamental argument in favor of an offshore wind tier and we appreciate that the City's comments also recognized that an offshore wind tier could serve downstate well.

Issue 5: CES Highlights the Need for Binding Energy Efficiency Target

The City encourages the Commission to consider the creation of twin mandates for renewable energy resources and energy efficiency in their comments. The City argues that setting targets for energy efficiency in a similar way to setting targets for renewable energy can help reduce the overall cost of the renewable energy mandate. The City further argues that with greater investment in energy efficiency, the overall system would require less investment in transmission and reduce costs for all consumers. Utilities also agree that aggressive investment in energy efficiency is needed to mitigate the cost impact of the 50% by 2030 goal.

We concur with the arguments advanced by the City and agree that the Commission should establish a successor to the Energy Efficiency Portfolio Standard. We also agree with the City's recommendation to the Commission to make targeted investments in energy efficiency to reduce the burdens of energy bills of low-income New Yorkers.

Although they express concerns about continuing to subsidize energy efficiency programs, in their initial comments MI recognizes the potential of energy efficiency to reduce overall CES compliance costs. We agree with MI that the Commission should conduct analysis regarding the role that efficiency can play in bringing down the CES cost. Towards this objective, we note the filing in this proceeding of a report by Synapse Energy Economics titled, *Aiming Higher: Realizing the Full Potential of Cost-Effective Energy in New York*, dated April 22, 2016. This paper highlights that the assumptions utilized in the calculation of the Tier 1 targets of the CES are well above the current utility efficiency targets approved by the Commission, yet are well below what is deemed cost-effective. If the forecasted efficiency savings are not realized, the 50% renewable energy mandate will not be achieved, and if all cost-effective efficiency was achieved, there would be cost savings for New York ratepayers. We hope this report will be useful to Staff as they further deliberate the role of efficiency in the CES and REV.

We further note that the recently released *Clean Energy Jobs Report* cites nearly 70,000 existing jobs in energy efficiency spread across all counties and regions of New York. This workforce includes individuals engaged in advanced building materials and insulation, efficient lighting and energy star appliances, renewable heating and cooling, and efficient heating, ventilation, and cooling. This level of employment is significant and impressive. Yet, by comparison, with one-third of New York's population, Massachusetts has a comparable number of energy

efficiency workers. Massachusetts has achieved this by consistently setting higher statewide energy savings targets and investing five times more than New York in its energy efficiency economy.

Issue 6:
CES Implementation Should be Timely

In their comments, MI recommends that the initial target toward the 50% by 2030 goal should become effective in 2018, not 2017. They go on to recommend the establishment of subsequent CES targets to be set in 2021, 2024, 2027 and 2030. They argue that an additional year before implementation of binding targets will allow time for further analysis and study.

We respectfully disagree. We encourage the Commission instead to move forward with the timeline proposed in the Staff White Paper. Delaying implementation for yet another year would create a gap in large-scale renewables procurements, delaying progress and fostering market uncertainty and disruption. In 2015, the Commission authorized an additional solicitation for the current RPS Main Tier for 2016. This solicitation was intended to continue progress toward reaching renewable energy goals while designing a new long-term structure.

Stakeholders have been engaged in efforts to design a large-scale renewables program for nearly two years and have commented on various proposals and design elements in these proceedings and participated in technical conferences and roundtable discussions. All of these discussions have been based on ten years of experience with New York's RPS. An additional year of study and analysis is unlikely to contribute materially to the record.

Lastly, MI's suggestion that a delay in implementation would allow wholesale power prices to rebound and decrease the need for subsidy is neither supported nor productive. First, it is not at all likely that we will see a substantial rise in wholesale power prices in just one year. More to the point, though, deliberately waiting until ratepayers are paying higher electricity prices before launching this program is not at all sensible. If there is indeed going to be a premium for the program in the early implementation years, it would be better to have that coincide with lower electricity bills. And if electricity prices rise and the premium is thus lower, ratepayers would still be paying higher bills. This is not a sensible argument for program delay.

Meanwhile, a strong argument in favor of timely implementation is the planned phase-down of the production tax credit (PTC) and investment tax credit (ITC). These programs offer real and time-limited economic benefit to New York ratepayers. Front-loading procurement solicitations under the CES will allow New York to maximize the benefit from these tax policies. This is a clear and convincing argument for holding the first CES procurement process in 2017.

Issue 7:
Firm Annual Targets are Necessary for 2017 – 2030

We further respectfully disagree with the comments of MI on establishing future CES targets upon a subsequent stage of the proceeding. We strongly recommend that the Commission set

annual compliance targets out to 2030 with the option to review targets as needed, rather than setting the goals every three years. Our Initial Comments supported the triennial review of targets, but in the context of annual targets being established at the start of the program and criteria articulated regarding what would cause the targets to be adjusted either upwards or downwards.

MI's statement, "Multiple Intervenors sees little purpose to establishing a 2020 goal at this time," articulates, in our view, their lack of interest in New York developing its renewable energy infrastructure, as setting annual binding goals is an absolute requirement to getting project proposals in the pipeline and onto the often difficult path of lengthy siting and interconnection processes. One of the most important strengths of the CES mandate is that it can create long-term certainty for renewable energy market participants by establishing a strong market signal through 2030, as RPS policies do in other states. This long-term certainty enables developers to prospect for sites and projects with the confidence that there will be a market for the output through the CES period, and brings down development costs, which ultimately reduces procurement and compliance costs. Setting only one target and addressing the rest in future proceedings fails to provide the market certainty needed to encourage renewable energy development with a significant lead-time, and thereby immeasurably weakens the CES program. The triennial review period offers the chance to make targeted adjustments if needed.

Issue 8:

CES Should be Equitably Supported Across Ratepayers

While comments of the utilities supported the idea that the CES program should be applied across all ratepayers, MI proposed that NYPA customers should be exempt and the Business Council proposed that businesses should be exempt. Neither of these exemptions is equitable nor represents a formula for success. Both NYPA customers and businesses at large contribute to the State's carbon emission profile through energy use. Both will benefit from a more diversified electricity mix in the State's portfolio and should equitably contribute to New York's achievement of this important policy goal. To the extent that NYPA customers already rely on a power supply that is substantially cleaner than the statewide energy portfolio, they do so as a result of past taxpayer investments in clean energy infrastructure. The utility filings support a CES program in which all jurisdictional LSE's (EDC's, municipalities, ESCOs) and non-jurisdictional LSE's (NYPA, LIPA, Co-ops, direct NYISO customers) share the CES obligation, as a fundamental principal. The renewable energy industry shares this position. While we recognize the jurisdictional issues with LIPA and NYPA, we encourage the Commission to request a proposal from LIPA and NYPA on how these entities will design and implement their own CES program that is fully consistent and well integrated with the CES to be established by the Commission in June for jurisdictional LSEs. Alternatively, the Commission could provide a recommended plan to the LIPA Board of Trustees that, by its adoption, would obligate LIPA and its service provider to fully comply with requirements of the CES. Ideally, NYPA and LIPA would participate in a solicitation process conducted by the electric distribution utilities, so there would be one procurement process for developers to navigate, rather than many.

The renewable energy industry is pleased with the statements from PSEG Long Island, such as its stated intent of collaborating closely with the Commission in developing its recommendations

for LIPA to comply with the CES. We note, however, that despite previous commitments to voluntarily comply with the goals of the State Energy Plan and the State's renewable energy policies, LIPA has consistently fallen short of the level of renewable development seen statewide. For example, PSEG Long Island makes reference to "an active solicitation for 210 MW of additional renewable energy resources," however this solicitation only exists because LIPA failed to purchase the 280 MW it had committed to in a prior renewables solicitation. We are thus reasonably concerned that, in the absence of a binding commitment on the part of LIPA, Long Island will continue to underperform as compared to the rest of the State in the development of large-scale renewables. Further, given that LIPA serves a very significant portion of the State's electric load, its failure to fully comply with the CES will make achieving Governor Cuomo's goal of 50% clean energy by 2030 significantly more difficult.

Issue 9:

CES Portfolio Approach Should Exclude Utility Ownership of Generation

Numerous commenters aligned with our Initial Comments in opposition to utility ownership of generation ("UOG"). These commenters cited similar concerns with vertical market power, the potential for utility bias, the need for more oversight, and the difficulties in comparing bids for UOG to bids for PPAs. We agree with these commenters that it would be extremely difficult to adequately overcome these issues and fairly level the playing field between UOG and independent power producers. IPPNY shares our position that UOG would not bring benefits to ratepayers, and shares concerns given that New York State's electricity markets preclude generation ownership by electric distribution utilities. Allowing UOG of large-scale renewables would backtrack on New York's progress in developing competitive markets and would set an unjustified, uncompetitive, and potentially harmful precedent.

In contrast, utilities propose utilizing UOG as part of a multi-faceted strategy to meet the 50% goal, termed "universal renewables." The other facets, according to the Utilities filing, would be: encouraging voluntary market expansion and extending NYSEERDA's existing REC-only approach. The utilities call for a "meaningful amount" of UOG being allowed to comply with Tier 1. The utilities do not offer evidence that this approach will be more affordable or less risky for ratepayers, who ostensibly would have to pay for these assets in the rate-base as well as cover additional expenses for higher-than-expected operation and maintenance costs or under-performance.

Notably absent from the portfolio of options in the "universal renewables" approach is a utility obligation to enter into PPAs, despite that model being identified as least cost in the LSR Options Paper and the CES Cost Study and this model being successfully utilized, especially in other restructured markets, including neighboring states. To reiterate, PPAs provide more certainty and more possibilities to developers than a REC-only approach combined with the voluntary market and UOG when they embark on the risky and costly task of developing projects in New York. By the Utilities' own argument ("limiting the program to a single type of entity will risk nonperformance and/or underachievement"), only having the option of REC-only procurements or UOG will eliminate multiple developers that want long term projects ownership but require PPA's in order to finance that investment. This chilling of participation in the New

York market will likely result in higher prices or the same underperformance as has been seen in the past with the REC-only program.

The utilities expect that UOG “will save 38% compared to bundled PPAs,” likely because the utilities are significantly underestimating the real cost to develop projects in New York, and are comparing a 20 year PPA with a 25 to 30-year project life under UOG (for fair comparisons the durations should be the same).

If developers were compelled to transfer projects to utilities, or to develop projects to be owned and operated by utilities, this would create a disincentive for developers to aggressively participate in the CES Program in New York and actively invest in the development and siting process in New York. Without the opportunity to create ongoing revenue streams, developers will most likely pursue opportunities elsewhere.

In short, for all the reasons previously stated and articulated by Staff in the White Paper, we do not support utility ownership of generation assets. Further, the “universal renewables” approach outlined in the utilities comments is not a framework for a sustainable and successful CES program because, among other factors, it fails to include a utility-backed PPA component.

Issue 9:

CES Can Be Successfully Integrated with REV

The Renewable Energy Industry is of the position that the Clean Energy Standard can be appropriately and successfully integrated with the existing and future net metering landscape and with other REV initiatives, and we support the inclusion of distributed renewable energy in Tier 1 as proposed in the White Paper. While most commenters did not address distributed resources, certain commenters, such as NYPA and the Clean Energy Organizations Collaborative, also supported the inclusion of customer-sited resources into the CES as it will allow for more flexible options for compliance, as well as support the development of distributed energy resources (DER) generally. NYPA argues the CES standards should support the broadest range of renewable energy resources. We agree. NYPA goes on to argue that customer-sited resources should generate RECs and there should be no limit on facility size, system capacity and configurations in the CES⁸. We support NYPA’s position in favor of allowing all customer-sited renewable resources in the CES and we agree that their inclusion will encourage further development of distributed energy resources.

The filing of Avangrid utilities and Central Hudson (the “Companies”) noted the potential to “double count” for renewable attributes. We noted this potential in our Initial Comments as well, but expressed that it is a problem that can be avoided. We differ with the filing of Con Edison and National Grid, though, in the belief that the utilization of net metering implies that the renewable energy credits belong to the utility rather than the customer-owner. As noted in our Initial Comments, and supported by the Solar Parties Initial Comments, the RECs should be owned by the project owner until they are expressly purchased by another party (either for CES compliance or another purpose). In their Initial Comments, the Solar Parties further articulated

⁸ Initial Comments of NYPA, p 13

that the RECs generated by distributed solar receiving the NY-SUN incentives should not have to be surrendered to NYSERDA. The higher compliance targets in the 50% CES mean that these RECs are now potentially more valuable and that distributed solar would be undercompensated if it had to forgo them. Rather, the generator or designated agent should have the ability to retain and monetize these RECs.

Issue 10:

A Sustainable CES Program Cannot Rely on Canadian Hydro

Several commenters supported the unlimited inclusion of Canadian hydropower in the CES. The Renewable Energy Industry's position is that a successful and sustainable CES program for New York, that maximizes the benefits to New Yorkers and enjoys continuing public support, will put reasonable limitations on inclusion of Canadian hydropower in the 50% mandate. This would not at all limit imports of Canadian hydropower in response to wholesale market signals, but would not "count" certain larger hydropower projects towards the CES obligation. Recognizing that these limitations need to balance the imperative to achieve the 50% goal with other concerns (potential non-climate related environmental impacts, the desirability of ratepayer support for assets owned by a Canadian government entity, the desire to keep energy dollars in-state and foster New York jobs), we propose that the reasonable restrictions limit hydropower inclusion in Tier 1 to projects that are (1) built after 2015, (2) do not utilize new impoundments, and (3) are less than 30 MW as that is the limit in the current (expired) RPS Main Tier.

Similarly, the renewable energy industry strenuously disagrees with NYPA's position that new and existing hydropower resources should be eligible for Tier 1 of the RPS. We object as a matter of principle to any new hydro impoundments receiving any eligibility in the CES due to their significant and detrimental impacts on the environment. We object to the inclusion of existing hydro resources being eligible for Tier 1, as they will cannibalize the market for the development of new renewable energy resources. Their inclusion is counter to the policy goals of getting *new* investment in *new* renewable energy infrastructure in *New* York.

In their Initial Comments, Hydro-Quebec, Transmission Developers and Poseidon Transmission have advocated for out of state resources to be deemed eligible for inclusion in the CES. While we support the inclusion of imports, we do so with the conditions articulated above. Further, as proposed in the White Paper, all clean energy purchased in compliance with the CES must be deliverable to the customers paying for it. Accordingly, a wind farm located in Pennsylvania that is seeking to sell power to LIPA / PSEG Long Island should have to demonstrate that its power is physically deliverable to the Long Island transmission system. To do otherwise would deprive Long Island ratepayers of the local price stability and emissions reductions benefits of delivered clean energy that they are paying for.

Second, all costs required to make clean energy purchased in compliance with the CES deliverable must be accounted for in the evaluation and selection of proposals. This is especially important in New York State where the NYISO has an established CARIS process for the recovery of transmission costs. If the CES selection process fails to account for the full cost of generation and transmission – including any costs recovered through CARIS or another tariff-

based mechanism – then it could result in projects that are less cost-effective than others that include the full cost of being deliverable.

III. CONCLUSION

We strongly support New York State’s pursuit of 50% renewable energy mandate through a Clean Energy Standard program, and we appreciate the opportunity to offer these Reply Comments. We further appreciate that the Commission recognizes the value of renewable energy to New York in terms of keeping energy dollars in-state; promoting local economic development; reducing the carbon emissions that cause global climate change; diversifying New York’s electricity supply in a market increasingly dominated by natural gas; providing long-term price stability in electricity supply; and avoiding air pollution that affects public health.

As described in our Initial Comments, we strongly believe that the core of the CES program needs to be an enforceable obligation for electric distribution utilities to purchase renewable energy using long-term power purchase agreements in the context of annual obligations laid out from 2017 to 2030. This framework is necessary to attract a robust portfolio of developers and technologies to New York who are willing to invest in the uncertain development process and thereby provide healthy competition for contracts that can drive down prices. The analysis provided by NYSEERDA and Staff in this proceeding -- in the LSR Options Paper, the CES White Paper, and the CES Cost Study --- all point to utility-backed PPAs as the procurement model that properly balances risks between ratepayers, developers, distribution utilities, and load-serving entities, and does so at lowest costs. As shown in these analyses, utility-backed PPAs offer the most chance for success in attracting investment and construction in New York, and can advance renewable energy goals at least cost and risk to New York ratepayers. The CES Cost Study also recognizes that PPAs lower overall costs. The utility-backed PPAs would be competitively procured, with independent power producers offering competitive, least-cost bids. The bids could be evaluated and selected using the “implied REC” approach outlined in these Reply Comments. This approach – competitively selected PPAs using an implied REC selection tool – complements New York’s competitive restructured electricity system and maintains the benefits of the NYISO markets.

Thank you for your consideration of this response and our additional recommendations. We look forward to continuing to participate in this important proceeding.

/s/ Anne Reynolds
Anne Reynolds
Executive Director
Alliance for Clean Energy New York

/s/ Andrew Gohn
Andrew Gohn
Eastern Region Director
American Wind Energy Association

/s/ Ryan Katofsky

Ryan Katofsky
Director, Industry Analysis
Advanced Energy Economy Institute

/s/ David Gahl

David Gahl
Director of State Affairs, Northeast
Solar Energy Industries Association

/s/ Peter Rothstein

Peter Rothstein
President
New England Clean Energy Council

/s/ Sean Garren

Sean Garren
Regional Manager – Northeast
Vote Solar