Comments of the American Wind Energy Association and the Alliance for Clean Energy New York on the Carbon Price "Clawback Proposal"

November 15, 2018

I. Executive Summary

On July 16, 2018, NYISO issued a statement that proposed to incorporate within its proposed carbon pricing mechanism a special charge on renewable generators that receive revenue from the sale of Renewable Energy Credits (RECs). This proposal would apply to renewable generators that have REC contracts with the New York State Energy Research and Development Authority (NYSERDA) executed before 2020 and for so long as those contracts remain in effect. Under the proposal, while all other generators would receive the locational based marginal price (LBMP) as they now do under NYISO market rules, NYISO would selectively deduct the carbon price component[1] of LBMP from amounts paid to REC contract holders (the Clawback Proposal).

NYISO should omit the Clawback Proposal from any tariff changes it proposes to implement carbon pricing. The Clawback Proposal would fundamentally change the economic terms of two programs – the Renewable Energy Standard (RES) and, its predecessor, the Renewable Portfolio Standard (RPS) – that were created by the New York State Public Service Commission (PSC) pursuant to state law. Fundamental changes to these programs should not be decided by NYISO but should be resolved in a proceeding before the PSC in which all parties have notice and an opportunity to be heard.

When considered on its merits, the Clawback Proposal should be rejected for many of the reasons given by NYISO's lead consultant on the carbon pricing initiative.[2] The mistaken premise of the Clawback Proposal is that, once LBMPs incorporate a carbon price, allowing renewable generators to receive both REC revenues and LBMP would represent a "double

[1] The carbon price component of LBMP is calculated as the product of the social cost of carbon (less the Regional Greenhouse Gas Initiative (RGGI) allowance price) and the real-time zonal marginal emissions rate.

[2] Sam Newell of the Brattle Group explained the flaws of the Clawback Proposal at the October 15, 2018 meeting of the Integrating Public Policy Task Force (IPPTF).

payment." But the notion that REC values and carbon values are duplicative ignores the history of the RPS and RES programs. The PSC has explained repeatedly and over many years that these programs serve multiple policy objectives, including economic benefits to the state from the development of an in-state renewable energy industry, reduced dependence on imported fuels and reduced exposure to fuel price volatility, and a wide range of environmental benefits, of which carbon abatement is only one. The carbon price mechanism does not compensate generators for these other values and is not being considered as a replacement for the RES. The onset of a carbon price, therefore, does not justify undermining the commitments the State has made to renewable generators through the RPS and RES programs.

The Clawback Proposal also ignores the competitive process through which REC contracts were awarded and priced. The PSC designed the RPS and RES programs so that renewable generators would take the risk of NYISO energy and capacity market price volatility. Renewable generators priced their REC bids with a range of future energy and capacity prices in mind, which included the potential upside of more stringent carbon mitigation policies. Had the renewable generators known they would be forced to give up the carbon component of their energy market revenues, they would have surely priced their REC bids higher than they did. But, at the time they priced their bids, REC contract holders were not required to disgorge any component of their market revenues attributable to then-current carbon mitigation policies such as RGGI, and were never given any reason to believe they would have to do so for future programs either.

The Clawback Proposal will harm the development of New York's renewable energy industry in ways that may not be obvious. For one, many REC contract holders have entered agreements to hedge energy prices. These renewable generators will be made significantly worse off by the Clawback Proposal than under the status quo. Moreover, as renewable projects now in development look to obtain financing, their efforts will be frustrated by the lack of a market for hedging agreements that meet their needs in light of the Clawback Proposal. Because it creates a two-price system, the Clawback Proposal will also distort bidding incentives in NYISO markets and will interfere with the development of renewable resources paired with storage.

The stated purpose of the Clawback Proposal is to return the "double payment" to ratepayers. But the benefit to ratepayers would be small indeed. As a whole, the cost to ratepayers of the NYISO carbon pricing proposal are low, amounting to only 0.38 cents per kWh in the program's first year and declining thereafter. Carbon charges retained by pre-2020 REC contract holders would amount to a small fraction of that modest increase. The Brattle Group has estimated this amount as 0.04 cents per kWh in the first year of the program, declining to 0.02 cents per kWh in 2025.[3] These savings – which equate to 0.2% of retail rates in the first

[3] *See* The Brattle Group, Sam Newell et al., *Analysis of a New York Carbon Charge (Updated)* at 12 (Oct. 12, 2018).

year and decline to 0.1% by 2025[4] – fall far short of justifying the demonstrable harm the Clawback Proposal would do to New York's renewable energy industry or the complications it will cause for the carbon pricing initiative.

II. Decisions That Fundamentally Affect the RPS and RES Should be Made by the PSC

The PSC established the RES program, and its predecessor the RPS, over a series of orders from 2004 to 2018.[5] To date, all fundamental policy design questions arising from these programs have been decided by the PSC. The Clawback Proposal implicates central policy design questions for the RPS and CES, including the purposes of the programs, the reasonable expectation of bidders in REC solicitations, and the impact that requiring REC contract holders to forego market revenues would have on future solicitations and programs. These questions should be resolved by the PSC.

The PSC is also the only body empowered to implement the most effective prospective solution to the concerns underlying the Clawback Proposal: indexing REC prices to NYISO energy prices. Procuring indexed RECs in future solicitations would eliminate any possible concern about double payment, because the increase in reference price indexes resulting from the carbon price would cause a corresponding decrease in REC prices. Renewable generators would know this when they submit their bids and – because indexation would hedge their price risk – they would be able to submit lower REC bids, resulting in lower costs to ratepayers. The PSC embraced the logic of indexation in its decisions on Zero Emissions Credits for nuclear facilities[6] and offshore wind renewable energy credits,[7] and should do the same for Tier 1 RECs from all eligible technologies going forward.

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[4] The denominators for these calculations come from projected retail prices in the Energy Information Administration's *Annual Energy Outlook 2018*. *See also* The Brattle Group, Carbon Charge Customer Cost Impact Analysis (Oct. 12, 2018) (Excel file, "Global Inputs" tab).

[5] *See, e.g.*, N.Y. Pub. Serv. Comm'n, Case 03-E-0188 *Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Regarding Retail Renewable Portfolio Standard* (Sept. 24, 2004) (2004 RPS Order); N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Approving Implementation Plan, Adopting Clarifications, and Modifying Environmental Disclosure Program* (April 4, 2005) (2005 RPS Order); N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Establishing New RPS Goal and Resolving Main Tier Issues* (Jan. 8, 2010) (January 2010 RPS Order); N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Resolving Main Tier Issues* (April 2, 2010) (April 2010 RPS Order); N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Modifying Renewable Portfolio Standard Program Eligibility Requirements* (May 22, 2013) (2013 RPS Order); N.Y. Pub. Serv. Comm'n, Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard* (Aug. 1, 2016) (2016 CES Order).

[6] *See* 2016 CES Order.

[7] *See* N.Y. Pub. Serv. Comm'n, Case 18-E-0071, *In the Matter of Offshore Wind Energy, Order Establishing Offshore Wind Standard and Framework for Phase 1 Procurement* (July 12, 2018) (Offshore Wind Order).

NYISO staff have indicated a view that the PSC's Offshore Wind Order provided direction to NYISO to implement something akin to the Clawback Proposal. But the Offshore Wind Order did not speak clearly to this question. In that order, the PSC noted that "the double payment issue has potential to be substantial," but also that key details of the carbon pricing mechanism were then unknown and "[a]s a result, there can be no clarity on what precise impact any potential carbon pricing proposal might have on REC prices bid into future NYSERDA solicitations."[8] The PSC noted that it "may be more reasonable" for NYISO to address the issue, but did not state so definitively and did not include anything on the subject in the order's ordering paragraphs.[9]

That the PSC did not purport to resolve this issue in the Offshore Wind Order is clear from the words it chose. It is also clear from context. The Offshore Wind Order was, needless to say, about future offshore wind solicitations. The PSC did not solicit comment in that proceeding on how a carbon price would interact with REC payments for existing land-based projects, and no party could have expected the issue to arise. There is no chance that the PSC, which abides by the State Administrative Procedure Act,[10] would have understood its passing remarks on the interaction between carbon prices and REC prices for land-based resources to have the force of law. Nor should NYISO. When it looks to integrate PSC policy directives into its tariff, NYISO should be careful to rely only on PSC decisions that have gone through the required procedures, including notice and comment. For the purposes of identifying public policy-driven transmission needs, NYISO defines "Public Policy Requirements" to include only those rules and regulations of the PSC that are "subject to and in accordance with the State Administrative Procedure Act."[11] NYISO should continue to follow that approach here, relying only on decisions of the PSC that have gone through notice and comment and have afforded legal recourse to all affected parties.

III. There Is No "Double Payment" Because RECs Compensate More Than Carbon Abatement

The Clawback Proposal is based on the idea that allowing the same resource to receive a REC and the carbon component of LBMP represents a "double payment." This argument would have force if the RPS and RES were programs solely devoted to carbon abatement for which the NYISO carbon price was a replacement. But these programs were never solely about carbon abatement, and state policymakers have rightly determined that the RES program will continue to benefit the State even after a carbon price is in place.

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[8] *Id.* at 60.

[9] *Id.*

[10] *See* N.Y. Admin. Procedure Act Law § 102(2)(a)(i)-(ii) (McKinney 2009).

[11] *See* NYISO OATT, Attachment Y, § 31.1.1.

The RPS and RES programs have aimed to pursue "a combination of environmental, economic, and security objectives."[12] Among the most prominent of those objectives was the desire to reduce New York's dependence on "imported"[13] fuels. In justifying the goals of renewable energy procurement, the PSC has emphasized "increased fuel diversity and energy security,"[14] and the demonstrable "macroeconomic benefits" of "making the State less vulnerable to volatile prices while increasing an economically stable source of domestic energy."[15] The PSC has explained that the "history of oil and natural gas price shocks and supply disruptions clearly demonstrates the value in having a diversified energy mix without heavy reliance on one particular fuel source."[16]

The PSC has also justified the RPS and RES based on the economic benefits to the State. In its seminal 2004 RPS Order, the PSC cited the "potential for economic development as a result of growing industries that typically tap into indigenous resources and invest in local and regional economies."[17] The PSC also observed that "[m]anufacturing of renewable energy equipment, procurement of fuels such as biomass, and construction and operation of generating facilities will create direct and indirect jobs, purchases of local products, which add revenues to local economies, and additional tax payments."[18] In 2013, the PSC imposed a short-lived rule that required RPS resources to be located in New York. In doing so, the PSC explained the importance that economic benefits to the State have always held in the RPS program, and cited with approval an earlier study that calculated the economic benefits to New York from in-state wind farms as equivalent to $10/MWh.[19]

The emphasis on economic benefits is evident not just in the PSC's description of RPS and RES program objectives, but also in the selection criteria and programmatic requirements. In evaluating bid proposals, NYSERDA has long placed a significant weighting factor on economic benefits. Bidders are encouraged to develop projects with maximal economic benefits

[12] *See* 2013 RPS Order at 15.

[13] 2004 RPS Order at 1.

[14] *Id.* at 3.

[15] January 2010 Order at 8.

[16] *Id.* at 12. *See also* 2016 CES Order at 76 (warning that to weaken the ambition of the standard "would leave consumers vulnerable to an over-dependency on natural gas").

[17] 2004 RPS Order at 3.

[18] *Id.* at 10.

[19] 2013 RPS Order at 26 – 27. *See also* N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Authorizing Customer-Sited Tier Program Through 2015* (April 2, 2010) at 7 ("The ultimate policy objective is to support creation of renewable industries that are self-supportive based on market demand and market forces instead of relying primarily upon ratepayer and taxpayer assistance to survive. However, such markets are not expected to be at a mature state for some time, and during this maturation process New York will be in competition, both domestically and internationally, to attract investment in a new, clean, high tech economy.").

to the state and are required to demonstrate the realization of those benefits to avoid penalty payments.

Environmental benefits have also been a central objective of the RPS and RES programs. But when it has identified the environmental benefits of the programs, the PSC has consistently pointed not only to carbon dioxide reductions, but also to reductions in NO_x, SO_x, and particulate matter.[20] In its 2016 Order establishing the Clean Energy Standard, the PSC explained:

> Increasing the contribution of renewable generation to meet the 50 by 30 mandate will not only reduce carbon emissions, but will reduce nitrogen oxides, sulfur dioxide, and particulate matter emissions as well by thousands of tons per year. Increased use of renewable energy sources leads to improved air quality and societal benefits from reduced health impacts and increased employee productivity. For example, as air quality improves, state health care expenditures for treatment of asthma, acute bronchitis, and respiratory conditions may be reduced. Reduced exposure to fine particulates may avoid other health problems such as increased morbidity and exacerbation of respiratory and cardiovascular ailments.[21]

Having relied on renewable energy procurements for years to meet a "a combination of environmental, economic, and security objectives," it would be unreasonable now to treat those non-carbon objectives as though they are no longer of value to the State.

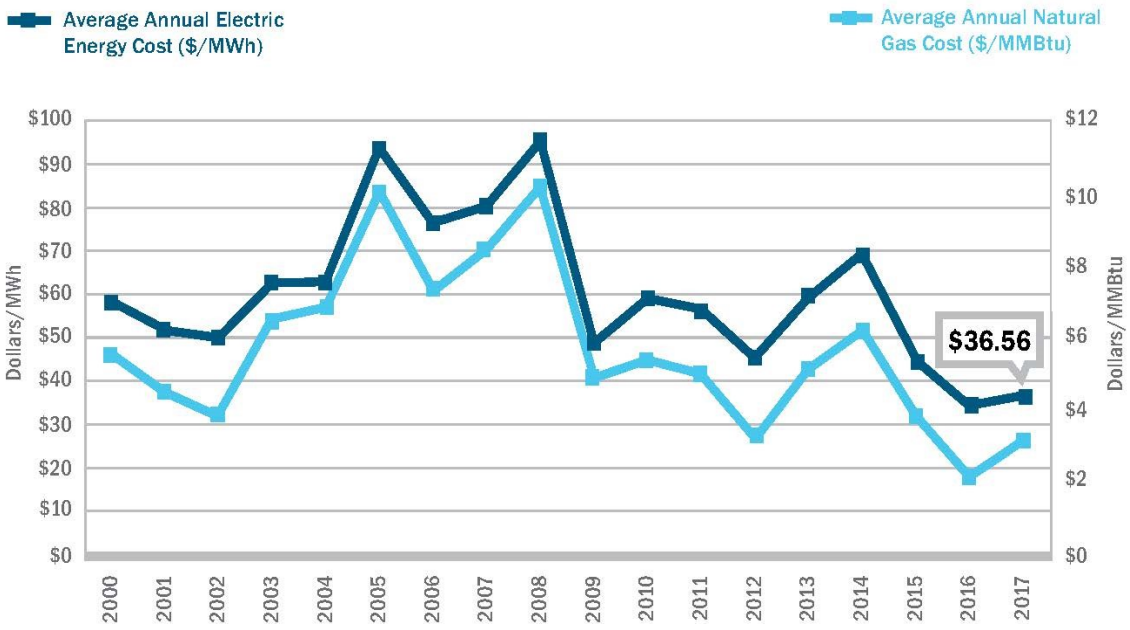
IV. REC Contract Holders Took the Downside Risk of NYISO Energy Prices and Should Not Be Denied the Upside After the Fact

The PSC designed the RPS and RES programs around the procurement of unbundled, fixed-price RECs through competitive solicitations. This policy design placed the risk of energy and capacity market price swings on the renewable generators. The PSC is certainly aware of this dynamic and has several times rejected calls to build price hedges into the RPS program.[22] For many REC contract holders, this downside risk materialized when declining natural gas prices pushed down NYISO energy market prices.

[20] *See, e.g.*, 2004 RPS Order at 10; January 2010 RPS Order at 8 & 13.

[21] 2016 CES Order at 3.

[22] *See, e.g.*, April 2010 RPS Order at 21.



(*Source:* NYISO, *2018 Power Trends* at 28).

Having designed the RPS and RES programs to place the market price risk on the renewable generators, it would be unfair and unreasonable to reverse course now and take away the upside that may come from a price on carbon.

If REC bidders had known they would be denied the upside of a carbon price, they would have bid higher REC prices. In modeling future market revenues over the life of their 20-year contract terms,[23] renewable generators expected that state or federal carbon mitigation policies could provide an upside for zero-carbon resources. The expectation that carbon mitigation policies would impact the market was more than speculation. For the entire period relevant to the Clawback Proposal, New York State has participated in RGGI, including numerous efforts to increase its stringency. Likewise, two NYSERDA solicitations were conducted during the period when the Environmental Protection Agency's Clean Power Plan had been proposed and not yet stayed by the Supreme Court.

In light of these programs – and the prospect of more stringent carbon mitigation policies in the future – bidders had every reason to build carbon price scenarios into their expectations of future revenues. Yet at no point were New York's renewable generators given notice that they would be forced to forego any portion of their market revenues in the event that carbon mitigation policies increased market prices. To the contrary, REC contract holders were always allowed to retain the benefit of RGGI carbon pricing along with their REC revenues without any suggestion that they were receiving a "double payment." Given that precedent, it is

[23] Beginning in 2014, the PSC authorized NYSERDA to enter REC contracts up to 20 years. *See* N.Y. Pub. Serv. Comm'n, Case 03-E-0188, *Order Authorizing Modifications to the Main Tier Solicitation Contract Term* at 16 (July 2, 2014). If implemented, the Clawback Proposal would have its greatest impact on these recent 20-year contracts.

inconceivable that bidders would have expected to be treated any differently under a future carbon mitigation policy such as the proposed NYISO carbon pricing mechanism.

There is no precedent in New York – or any state we are aware of – for carbon pricing to be used as grounds for taking back the economic benefits of contracts a state has already signed. Doing so now would not only harm the REC contract holders subject to the Clawback Proposal, but could also undermine future state programs. Participants in future programs will recognize the State's willingness to go back on its commitments, and will question whether the program benefits on offer may be subject to a similar clawback. Some market participants may choose to focus their resources in other states, or may demand a risk premium for doing business in a state that has demonstrated a willingness to go back on its commitments.

V. The Clawback Proposal Would Make REC Contract Holders Worse Off than under the Status Quo

Even though NYISO has proposed to limit the size of the clawback to each generator's REC contract price, REC contract holders will nonetheless be made worse off by the Clawback Proposal than if there were no carbon price at all. As Calpine explained in its October 29 IPPTF presentation, many renewable generators in New York have entered into fixed-for-floating price swaps to hedge market risk and enable project financing. In a fixed-for-floating price swap, the renewable generator pays its financial counterparty the LBMP for every MWh generated and the financial counterparty pays the renewable generator an agreed-to price per MWh. Because the LBMP will settle with the carbon component included, the renewable generator would pay its counterparty a price that includes the carbon component, but would have the carbon component deducted from its own market revenues. Because these generators struck their hedge deals based on anticipated market prices that did not include the full carbon price, they will be made substantially worse off than under the status quo.

Unhedged REC contract holders will also be worse off, although to a lesser extent. That is because of what the Brattle Group refers to as the "dynamic effects" of carbon pricing. The Brattle Group has explained that, as LBMPs rise because of the carbon price, customers will see greater incentives to pursue energy efficiency and conservation.[24] Indeed, ensuring that consumers respond to negative externalities embedded in fossil fuels is a well-understood objective of carbon pricing. But as consumers reduce consumption, the reduced load will exert downward pressure on NYISO energy and capacity market prices. The result is that, when the carbon component is clawed back, REC contract holders will end up with lower market revenues than they would have had there been no carbon price at all. REC contract holders also could be made worse off by NYISO's proposal to calculate the carbon component used in the clawback at the zonal level while generators get paid the LBMP determined at the nodal level. When there are transmission constraints within the zone, the carbon component is likely to be lower at the

[24] *See* The Brattle Group, Sam Newell et al., *Analysis of a New York Carbon Charge (Updated)* (Oct. 12, 2018) at 14, 22 – 23.

node where the renewable generator is injecting energy than in the zone as a whole, resulting in a lower price received by the renewable generator than if there were no carbon price at all.

VI. The Clawback Proposal May Imperil the Financing of RES Resources Still in Development

Many renewable resources that would be affected by the Clawback Proposal have not yet obtained project financing. This is likely the case for many of the projects that will be selected in NYSERDA's 2018 Tier 1 Renewable Solicitation, and may also be the case for projects in the 2017 Solicitation. For two reasons, the Clawback Proposal could put some of these projects at risk. First, the REC prices these project developers bid into the solicitation may not have reflected the negative impact to project revenues posed by the Clawback Proposal. Second, as noted above, project financing can be difficult to obtain without an energy price hedge. Renewable generators may not be able to obtain effective hedge agreements with the Clawback Proposal in place. That is because renewable generators will no longer find it useful to hedge against LBMP or a hub price. Rather, they will need a hedge against the price they actually receive: LBMP minus the carbon component. But financial counterparties are unlikely to offer such a product for which there will be a small and illiquid market. Such hedge agreement are therefore likely to come at significantly higher cost, if they are available at all. The Clawback Proposal, therefore, puts at risk the State's effort to meet its commendable renewable energy goals.

VII. The Clawback Proposal Will Incentivize Inefficient Bidding and Add Uncertainty to Pairing Renewables with Storage

A fundamental principle of well-designed markets is that the marginal revenue received by sellers should equate to the marginal social cost of production. The Clawback Proposal departs from that principle and will, therefore, incentivize inefficient bidding. Resources subject to the Clawback Proposal will not receive the market clearing price, but instead will receive the market-clearing price minus the carbon component. As a consequence, inefficiencies will arise because these resources will have an incentive to dispatch during hours when revenue to them is greatest, which may not be the same hours as when the market price is highest. Many renewable resources are not dispatchable and therefore may not encounter this issue. But others, such as biomass, biogas, hydropower, fuel cells,[25] and wind or solar paired with battery storage[26] are

[25] As of December 31, 2017, there were 11 biogas, 2 biomass, 5 fuel cell, and 33 hydroelectric projects operating or in development under active RPS and RES contracts. *See* NYSERDA, *New York State Clean Energy Standard Results of Renewable Energy Standard and Renewable Portfolio Standard Solicitation for Long-Term Contracts through December 31, 2017, Final Report March 2018*.

[26] NYSERDA's website states that one selected wind project in the 2017 solicitation is paired with storage, and that 17 of the 74 bid proposals submitted in the 2018 solicitation include renewables paired with storage.

dispatchable and may have fuel or charging constraints that lead them to be selective in which hours they dispatch. For example, a renewable resource paired with a battery should receive a market signal to dispatch more often when an inefficient oil-fired unit is on the margin than when a less-carbon intensive resource is on the margin. Under the Clawback Proposal, it would not receive that market signal – a result that would be economically inefficient and would work at cross-purposes to the "Clean Peak" goals in New York's Energy Storage Roadmap.[27] Further, because the Clawback Proposal would apply in energy markets but not ancillary services markets, it could distort the efficient commitment of battery storage across markets.

For the same reason, the Clawback Proposal would distort the incentive to retrofit existing renewable resources to include storage. The business case for energy storage depends significantly on intra-day price differentials. Because the carbon component of LBMP is likely to be higher on average in the high-price hours (when combustion turbines and oil-fired units are on the margin) and lower in the low-price hours (when renewables, nuclear, and combined cycle units are on the margin), the Clawback Proposal will artificially mute the price signal, and therefore the business case, for adding storage to existing resources.

VII. Conclusion

The Clawback Proposal would fundamentally change the economic terms of programs created by the PSC and, therefore, should be decided by the PSC, not NYISO. When considered by the PSC, the Clawback Proposal should be rejected as it misconceives the purposes of the RPS and RES programs and unfairly goes back on the State's commitment to renewable generators.

[27] N.Y. Pub. Serv. Comm'n, Case 18-E-0130, *New York State Energy Storage Roadmap* (June 21, 2018) at 62 – 65.