ALLIANCE FOR CLEAN ENERGY NEW YORK, INC.

119 Washington Avenue, Suite 1G
Albany, NY 12210
518.432.1405
info@aceny.org | www.aceny.org

Comments from the Alliance for Clean Energy New York on Proposed Changes to Capacity Market Qualifications

February 13, 2019

The Alliance for Clean Energy New York (ACE NY) respectfully submits the following comments to the New York Independent System Operator (NYISO) regarding the NYISO's proposal *Expanding Capacity Eligibility*, as initially presented on October 8, 2019 and subsequently discussed and modified in meetings of the ICAP Working Group and Market Issues Working Group, to re-design the capacity market qualifications.

ACE NY is a nonprofit membership organization whose mission is to promote clean energy, energy efficiency, a healthy environment and a strong economy for New York State. This diverse coalition includes private renewable energy and energy efficiency companies, environmental and economic development organizations, academic institutions, and consultants to the energy sector. The clean energy technologies represented by ACE NY members include land-based wind, offshore wind, hydropower, biomass, fuel cells, energy efficiency, energy storage, distributed wind, and both distributed solar and utility-scale solar.

On behalf of the diverse coalition represented by ACE NY, we thank the NYISO for its ongoing review of capacity valuation and the importance of capacity performance in ensuring reliability of the New York electric system. These comments are submitted because the NYISO has proposed a change in requirements for capacity duration for Energy Limited Resources (ELRs) from four hours to eight hours for full capacity value, which the NYISO is relying on to propose other changes which have potentially significant negative implications for performance-based resources, notably wind, solar and run-of-river (RoR) hydro.

Specifically, the NYISO has proposed a change in the peak periods utilized during the winter and summer months to value capacity for wind and solar, expanding the peak window from the current four hours to eight hours, and similarly expanding the performance evaluation window for RoR

hydro from the highest 20 load hours to the highest 40 hours, seemingly to be consistent with the capacity duration requirement for Energy Limited Resources. While we appreciate the NYISO's goals in support of reliability, we oppose the change in methodology as lacking in analytical support and, more broadly, representing an impediment to developers' ability to construct projects necessary to meet New York State's Clean Energy Standard goals. This includes Governor Cuomo's recently announced goal of 70 percent renewable energy and 3,000 MW of energy storage by 2030.

First, we believe this proposal's treatment of energy storage contradicts FERC Order 841, which seeks to remove barriers to participation by energy storage resources in wholesale markets. In *Expanding Capacity Eligibility*, NYISO proposes the ability to schedule internal DER whenever they are needed. FERC Order 841 specifies that owners of energy storage must be able to decide how to manage their state of charge, including when to charge and inject power into the grid. NYISO's proposal interferes with FERC's directive on owner control and may cause a battery to be called to charge and discharge in a manner that is harmful to the battery.

Further, the NYISO has proposed revisiting this methodology every four years commensurate with the Demand Curve Reset Process, meaning that developers face the additional risk of a change in capacity valuation and critical capacity revenue, incorporating additional uncertainty into the development and operational processes.

The NYISO has engaged GE Energy Consulting to study the capacity value for Energy Limited Resources based on the number of hours they can continuously deliver energy. (See *Valuing Capacity for Resources with Energy Limitations* presentation from January 8, 2019). The study used the GE MARS model and used a post-processing approach to model blocks of Energy Limited Resources (ELRs) in a Loss of Load Event (LOLE)-like study. The study employed perfect foresight and did not allow for in-process optimization. The NYISO's recommendation based on this study is that ELRs be deliverable for eight consecutive hours in order to receive capacity credit for 100 percent of their installed capacity. Shorter durations are proposed to receive a portion of that full ICAP value.

In response to the GE Study, both the Market Monitoring Unit and Astrape Consulting have provided additional studies, both of which indicate a higher capacity value for ELRs, and also possibly a shorter duration requirement in order to receive 100 percent capacity value. (See Valuing Capacity for Resources with Energy Limitations – Preliminary Independent Assessment presented by Astrape Consulting on January 8, 2019). These additional studies deserve due consideration from the NYISO as they apply to distributed energy resources and energy storage, and should affect the NYISO's final recommendations with respect to these resource types.

None of these studies focused on land-based or offshore wind, solar resource types, or RoR hydro, nor did they attempt to specifically model variable resources to evaluate their capacity contribution. Yet, the NYISO has used the GE Study results to justify proposing changes to the methodology for evaluating the capacity credit for wind, solar, and RoR hydro resources, suggesting this proposed change for purposes of "consistency" with the study results and the proposed changes for other resources. We are concerned that this proposal, because it is in reaction to a study that did not specifically examine wind, solar and RoR hydro, runs the risk of undercompensating these resources for the capacity value they bring to the NYISO system, leading to an inefficient market outcome and suppressing new investment that would otherwise be incented by a robust and certain capacity market.

Today, wind and solar are currently evaluated based on historical average output during four peak hours of the day during the summer and winter months. NYISO, as noted earlier, has now proposed evaluating them based on their average output over eight peak hours during these same months.

Season	Current	Proposed
Summer (June, July, Aug)	2pm-6pm	12pm-8pm
Winter (Dec, Jan, Feb)	4pm-8pm	2pm-10pm

NYISO has presented some limited analysis of how this change would impact the capacity value of wind and solar resources on a fleet average basis. This analysis shows that on average, there

are relatively small differences in the capacity/performance factor (less than 1% for both wind and solar). But that's not the whole story. These small changes result in lower values in the summer months, and higher capacity values in the winter months, particularly for solar. This potential shift can have very significant financial impact on generators as the market value of capacity tends to be higher in the summer than in the winter – and often times significantly higher. For existing wind and solar resources – or those planned land-based wind, offshore wind, solar and storage resources that are critical to meeting New York State's renewable energy goals (including those receiving contracts with NYSERDA) – their economic viability may look significantly different under the NYISO's new proposal. In addition, the values presented by NYISO are historical averages, and the impact to individual plants could be significantly higher or lower than the data they have presented based on location, equipment, physical array configuration, and other factors, including pairing with energy storage technologies.

Most importantly, at this point, the NYISO has not shown that sufficient rationale exists for making a change to the methodology for wind resources, solar resources, and RoR hydropower, and has not demonstrated that a flaw or deficiency exists in the currently utilized methodology. Likewise, NYISO has not demonstrated a reliability problem or market-related concern that this proposed change is meant to address. Performance-based resources such as wind, solar, and RoR hydro are presently evaluated for capacity based on their historic ability to deliver energy during long-established peak periods. Unless there is a significant reliability issue associated with this methodology, the NYISO's revised approach is seemingly inconsistent with the renewable and environmental goals of New York State, notably its Clean Energy Standard and emissions reduction goals, and is indifferent to the potentially significant economic impacts to existing and proposed resources. The NYISO's approach, including its proposal that this capacity valuation analysis be revisited every four years, creates a level of regulatory uncertainty and risk that may stifle investment in renewable resources in New York State.

We strongly encourage the NYISO to reconsider applying this change in methodology to performance-based resources and look forward to continued discussion.

Signed,

Anne Reynolds, Alliance for Clean Energy New York