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September 23, 2024

**VIA ELECTRONIC FILING**

TO: The Honorable Michelle L. Phillips, Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350

**RE: Case 15-E-0302 – Comments on Draft Clean Energy Standard Biennial Review**

The New York Battery and Energy Storage Technology Consortium ("NY-BEST") is pleased to submit comments for consideration in the above referenced case in relation to the draft Clean Energy Standard Biennial Review (Biennial Review) filed by Department of Public Service (DPS) Staff and the New York State Energy Research and Development Authority (NYSERDA) on July 1, 2024.

We greatly appreciate the Commission's consideration of our comments and recommendations. If you have any questions about these comments or need additional information, please contact us at 518-694-8474 or by email at info@ny-best.org. Thank you.

Respectfully submitted,

Dr. William Acker
Executive Director, NY-BEST

## INTRODUCTION

The New York Battery and Energy Storage Technology Consortium (NY-BEST) is a not-for-profit industry trade association with a mission to grow the energy storage industry in New York. We act as a voice of the energy storage industry for more than 180 member organizations on matters related to advanced batteries and energy storage technologies. Our membership includes global corporations, start-ups, project developers, leading research institutions and universities, and numerous companies involved in the electricity and transportation sectors.[1]

NY-BEST and our members have been actively engaged in the State's implementation of the State's Climate Leadership and Community Protection Act (CLCPA)[2], including through the development and implementation of the State's Energy Storage Roadmaps. NY-BEST is committed to helping meet New York State's goals to:

- achieve 70 percent renewable energy by 2030 and zero emission electricity by 2040;
- reduce greenhouse gas emissions by 40 percent by 2030 and achieve net zero greenhouse gas emissions economy-wide by 2050;
- deploy 6 GW of energy storage on the electric grid by 2030;
- deploy 10 GW of solar by 2030 and 9 GW of off-shore wind by 2035; and
- direct 40% of the overall benefits of clean energy investments to Disadvantaged Communities.

Energy storage is a key enabling technology to achieve an equitable clean energy transition and we urge the State to more holistically incorporate energy storage into its strategy to achieve its climate mandates.

## COMMENTS ON THE BIENNIAL REVIEW

NY-BEST appreciates DPS Staff and NYSERDA's tremendous efforts to support renewable energy development in New York State and for their thoughtful review of the status of New York's clean energy transition. However, NY-BEST is deeply concerned that the State has not laid out a pathway to stay on track to achieving the 70% renewable by 2030 target, and instead proposes meeting it by 2033. Further, a discussion of how energy storage will be incorporated into the State's plan is notably lacking. New York State must demonstrate it is serious about meeting its climate mandates. NY-BEST thus urges the State to accelerate action by committing to the following, as further detailed in these comments:

I. Hold fast to the 70x30 target.
II. Incorporate energy storage into 70x30 planning.
III. Improve procurement processes to accelerate deployment of renewables and storage.

[1] NY-BEST comments represent the interests of the organization as a whole and not the views of any single member. Our members have diverse interests and the organization's views are intended to be reflective of the energy storage industry collectively.

[2] New York State Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019. https://www.nysenate.gov/legislation/bills/2019/s6599.

## I. Hold fast to the 70x30 target.

As New York State policymakers are well aware, the climate crisis continues to intensify. In 2023, the hottest year on record by a wide margin, the globe experienced record-breaking levels of greenhouse gases, ocean heat and acidification, sea level rise, Antarctic sea ice cover and glacier retreat.[3] It has become widely accepted that rapid decarbonization is critical to maintaining a habitable planet, and that economy-wide decarbonization will largely depend on electrification of end-uses previously reliant on fossil fuels.[4, 5] Of course, electrification will only succeed in reducing emissions if electricity is generated from clean and renewable sources. **Given that clean electricity is the pillar upon which the entire energy transition rests, it is essential that New York State hold fast to its renewable energy targets.**

Worryingly, the Biennial Review notes that on our current trajectory, assuming robust response to future contract solicitations and a 30% attrition rate for awarded contracts, the anticipated amount of renewable generation in 2030 (~73 TWh) is just 45% of anticipated load (~165 TWh). Further, Staff and NYSERDA's proposed pathway forward will have the State achieve the 70% renewable target by 2033 at the earliest, not 2030. This is of particular concern because emissions are cumulative; in terms of the future moderation of warming, one ton of $CO_2e$ reduced today is worth significantly more than if it were reduced next year. **Each year we delay emissions reductions will increase the subsequent reductions required to stabilize the climate.**

While NY-BEST appreciates the myriad of challenges described in the Review that have slowed renewable development to date, including global interest rates, inflationary and supply chain pressures, labor shortages, and permitting challenges, we urge the State to hold fast to the 70x30 target. By continuing to work closely with industry, the State can accelerate deployment and ensure we achieve our climate mandates.

## II. Incorporate energy storage into 70x30 planning.

In planning the path forward to 70x30, NY-BEST recommends the State consider the tremendous opportunities for energy storage to support renewable deployment. Though energy storage resources are not directly counted in the GWh of renewable generation in the quantified goal, they are an enabling technology critical to achieving the target. Namely:

- Energy storage can directly reduce fossil generation.
  While the Review discusses opportunities to increase renewables deployment, it lacks a discussion of opportunities to displace fossil-based generation. In addition to providing

[3] World Meteorological Organization, *State of the Global Climate 2023.* March 2024. Accessed online: https://wmo.int/publication-series/state-of-global-climate-2023
[4] International Panel on Climate Change, *Global Warming of 1.5.* 2018. Accessed online: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_HR.pdf
[5] International Energy Agency, *Secure and Efficient Electricity Supply*. 2013. Accessed online: https://www.oecd.org/en/publications/secure-and-efficient-electricity-supply_9789264207639-en.html

other services, energy storage resources can directly reduce reliance on fossil-powered power plants by discharging during peak load. By reducing reliance on peaker plants, energy storage can lower the number of non-renewable GWh of generation, thus increasing the percentage of renewable GWh serving total load. Further, displacement of peaker plants with energy storage supports the State's equity targets, as many peaker plants are sited in Disadvantaged Communities and have well-documented air quality and public health consequences.

- Energy storage can integrate renewables and reduce curtailment.
  As policymakers have repeatedly recognized through changes to the Tier 1 procurement requirements and evaluation, mitigating congestion and curtailment risk is critically important to ensuring the viability of the development pipeline. While the Review addresses opportunities for transmission to address these risks, it neglects to discuss energy storage. Energy storage resources can reduce the curtailment of renewables and provide demand during periods of high renewable production, particularly as penetration increases. They can also serve as a transmission asset, reducing congestion and supporting renewable integration.

- Energy storage can improve the economics of renewables.
  If congestion and curtailment risks are not addressed, they will erode the economics of both existing and contracted Tier 1 renewable projects by reducing actual or expected output and driving up costs. Further, these risks could substantially increase strike prices in future procurements. Indeed, as renewable penetration grows and more resources deliver MWh at a zero marginal cost, lower prices than the time-average will result during hours of high renewables penetration. Thus, many renewables developers anticipate that the Reference Energy Price (REP) will sometimes exceed the actual energy revenue realized by the facility. To compensate for this risk, developers increase their offered strike prices, driving up ratepayer costs. Energy storage can play a direct role in reducing costs by absorbing excess renewable generation and reducing risk, thereby improving the economics of renewables.

Given the critical role that energy storage will play in achieving 70x30, the Review must consider additional opportunities to support energy storage and coordinate that support with policies and programs for renewable deployment. For example, the State should consider:

- Streamlining energy storage permitting through the Office of Renewable Energy Siting.
  New York State established the Office of Renewable Energy Siting (ORES) in 2020 to streamline and expedite the environmental review and permitting of major renewable energy projects. Under the RAPID Act, which went into effect in April 2024, ORES now also incorporates the siting and permitting process for electric transmission facilities. However, to date, the permitting process for energy storage installations has been excluded from ORES's purview. This is a significant gap that must be addressed to ensure the safe and timely deployment of energy storage in support of the 70x30 target. NY-BEST recommends the State consider amending Public Service Law to provide ORES with authority to permit

large energy storage projects in localities with populations of one million or less, in order to support safer energy storage deployments, improved regulatory consistency, and accelerated progress toward climate and equity targets.

- Making distributed storage eligible for the E-Value under the VDER Value Stack.
  As noted in the Review, the E-Value is designed to compensate Distributed Energy Resources for the environmental benefit of delivered electricity. While the Review considers expanding E-Value eligibility to include small hydro generators, it does not contemplate including energy storage. Given the clear environmental benefits energy storage provides by displacing peaker plants and facilitating increased renewable penetration, NY-BEST recommends the State consider expanding eligibility to include energy storage as well.

- Supporting Storage as Transmission (SAT).
  While the Review considers opportunities to support transmission buildout and coordinate transmission development with renewable procurements, it does not include a discussion of supporting energy storage as a transmission asset. In particular, SAT with Grid-Forming (GFM) capability is a powerful technology that can maximize power flow and ensure power quality on the transmission grid as the deployment of solar and wind accelerates. SAT with GFM can help avoid or defer expensive transmission equipment such as synchronous condensers, as well as maintain and improve power quality to enable more inverter-based resources to connect to the grid. NY-BEST recommends the State launch a GFM task force as part of the Grid of the Future proceeding to assess regulatory challenges and opportunities for SAT with GFM capability.

## III. Improve procurement processes to accelerate deployment.

To meet New York's ambitious 70x30 target, policymakers and industry must work together closely to ensure procurement processes are as efficient and effective as possible. To that end, NY-BEST offers the following comments:

- Long-term view. We appreciate the State's recognition of the fact that achieving 70x30 is not a "one and done" target. Renewable deployment must accelerate beyond 2030 to continue to achieve the 70% goal as load increases in the 2030s. To that end, NY-BEST supports extending Large-Scale Renewable (LSR) procurements beyond 2026, as well as expanding offshore wind procurements beyond 9 GW by 2035, particularly given project attrition. We also recommend the State consider establishing a Dispatchable Emissions-Free Resources (DEFR) target of 10 GW by 2035, which would include Long-Duration Energy Storage (LDES), to ensure continued support and integration of renewables as electrification accelerates in the 2030s. The target should be accompanied by a new procurement program for DEFRs.

- Portfolio approach. We appreciate the State's recognition of the need for not just LSR, but also Distributed Energy Resources (DERs). NY-BEST supports the increase in the goal and authorization levels for distributed generation beyond the current goal of 10 GW by 2030, particularly as these resources can serve as a critical load modifier as demand increases.

- Procurement scoring. We appreciate the State's desire to ensure renewables projects selected in procurement processes are not just the least-cost, but that they offer the greatest value to ratepayers and the energy system more broadly. While the Review proposes several options to address this, we believe the first – "Reduce 70% price scoring component" – is the most viable. Bids with low strike prices may be more speculative, and may carry higher risks due to uncertainties in execution and delivery. By weighting non-price factors more heavily, particularly the maturity of the project and the track record of the proposer, the State is more likely to reduce attrition and ensure program success. While we agree with the second option conceptually – "Expand definition of cost component beyond bid price" – we are concerned it would be more difficult to calculate and could lead to unintended consequences if the methodology is not appropriately crafted. Similarly, the third option – "Consolidation and re-allocation of non-price points" – may be more difficult to implement and would reduce the consideration of non-price factors other than maturity, such as community benefits or siting considerations. Therefore, NY-BEST supports the first option, reducing the price scoring component from 70% and instead weighing non-price factors more heavily, for both future LSR solicitations as well for the NYSERDA Bulk Storage solicitations.

- Strike price adjustments. NY-BEST supports the proposal to allow NYSERDA and DPS staff to offer strike price adjustments for awarded projects, both for LSR procurements and the Bulk Storage procurement. As illustrated by the events last year, the flexibility to adapt to changing national and global conditions, such as high inflation and the supply chain concerns, is critical. Further, to date, bidders have had to front-load strike prices to account for inflation impacts in later project operational years. Including an escalator in strike prices, rather than requiring a flat strike price, would allow initial bids to be lower, saving ratepayer costs over the life of the project.

**CONCLUSION**

NY-BEST appreciates the work by DPS and NYSERDA Staff to support renewable energy development in New York State. As discussed in our above comments, we recommend the State reinstate its commitment to achieving the 70x30 target, and lay out a pathway to doing so that clearly incorporates a strategy to leverage energy storage in support of renewable deployment and fossil fuel displacement. We stand ready to assist with any questions you may have on these comments. Thank you for the opportunity to share our input and feedback.