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August 16, 2024

VIA EMAIL

TO: Mr. Paul Hibbard and Mr. Todd Schatzki
Analysis Group
111 Huntington Avenue, 14th Floor
Boston MA 02199

Mr. Zachary Smith
New York Independent System Operator, Inc.
10 Krey Blvd.
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RE: Demand Curve Reset Interim Final Report

Dear colleagues,

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 thanks the Analysis Group (AG) and the NYISO for their diligent efforts in the 2025-2029 Demand Curve Reset Period process (DCRP) and for your consideration of our previous comments. NY-BEST provides the following comments in response to the Interim Final Report presented by AG on July 29, 2024.[2]

[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] Analysis Group, Inc., "Independent Consultant Study to Establish New York ICAP Demand Curve Parameters for the 2025/2026 through 2028/2029 Capability Years – Interim Final Report," July 29, 2024. Accessed online:

1. **Modeling Assumptions**

Despite significant improvements, work remains to ensure the modeling assumptions accurately reflect real world conditions for energy storage projects.

A. *Investment Tax Credit:* The report continues to overestimate the eligible basis for ITCs, particularly by including the transmission line. The transmission line, along with costs related to non-eligible components such as interest during construction and sales tax, should be excluded from the ITC calculation. Estimates suggest that the BESS proxy should have an eligible basis of approximately 60% in Zone J and 75% in other Localities, rather than the 75% and 90% assumed in the report, respectively. While the report lacks all the necessary details for a full accounting, there is enough to know this requires further consideration.

B. *Sales Tax:* The report's allocation for sales tax, which appears to be based on a narrow estimate of Owner's Costs, fails to capture the full scope of taxable expenditures that developers will face throughout the life of the project. NY-BEST members report that about 95% of EPC costs and 80% of total project costs, along with many O&M aspects like service contracts, maintenance agreements, and extended warranties, are typically subject to sales tax. NY-BEST has long advocated for a sales tax abatement for BESS projects in New York. This effort arises from the recognition by NY-BEST members that sales taxes significantly increase development costs, hindering the widespread adoption of this critical technology. Despite ongoing legislative efforts, these taxes continue to burden BESS projects. Misalignment in addressing these costs would not only undermine the financial viability of BESS projects but would also slow the growth of energy storage in New York, which is essential for meeting the state's renewable energy and emissions reduction goals.

C. *Spare Parts*: The report underestimates the cost of operating spare parts by incorrectly assuming that spare needs are tied to battery duration. This approach overlooks the fact that all BESS durations require the same number of critical components like inverters, transformers, breakers, relays, and high-voltage cables. The $500k estimate is especially inadequate for Zone J, which includes a mile of underground cables with multi-year lead times for replacements like cables, splice kits, and terminations. The importance of having adequate spares was highlighted by a NY-BEST member who recounted an incident where a utility worker accidentally damaged a 230 kV conductor. Without the necessary spares, such events can lead to significant operational downtime. NY-BEST recommends updating the assumptions to reflect a more realistic budget of $3.75M for Zone J and $1.5M for ROS.

D. *Mortgage Recording Tax:* The report overlooks the inclusion of mortgage recording tax for proxy units across all Localities. In New York State, mortgage recording taxes are a significant cost that developers must account for when securing financing.

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https://www.nyiso.com/documents/20142/46168401/AG-1898-2025-2029-DCR-Interim-Final-Report-redline.pdf/ad3ae00f-e7ff-0a7f-6f06-40d520d4be7d.

Given that the consultants assume a debt financing structure for all proxy units, it is essential to recognize that lenders would require the mortgage to be recorded.

E. *Insurance:* The report underestimates the cost of both builder's risk insurance and general insurance by limiting the insured value to only EPC costs. NY-BEST recommends that the insured value should also include the project-owned transmission cable, plant-side 345 kV switchyard, sales tax, contingency, interest during construction, and project development costs. NY-BEST recommends including these components to provide a more accurate representation of the insured value that would be required of a developer by lenders pursuant to financing.

F. *Net Operating Losses:* The report assumes that net operating losses can be immediately used to offset taxes in the same period they occur. This implies that BESS owners can apply these losses to reduce tax liabilities across their other ventures. However, this only works if the company already has significant assets in New York State, or in Zone J within New York City, that generate enough income to benefit from this. This requirement creates a significant barrier for companies that lack existing NYS or NYC assets, as they would face challenges in recovering their investments. Consequently, this exclusionary effect undermines the goal of fostering a competitive and accessible market within NYISO.

G. *VSS Adder:* The DCR model has an error by adding the VSS Adder to the unescalated Net_EAS cell (Sheet Model > Cell B72). This mistake causes the value, calculated using the 2024 VSS Rate, to be additionally escalated by the GDP increase of the last two years. Since the VSS Adder is intended to be updated annually, it should not be subject to this escalation and should instead be added after the Net_EAS value has been escalated.

H. *Staffing:* The report continues to recommend that no new full-time employees would be required in association with a BESS installation. This is inaccurate. BESS installations result in new full-time jobs, including to: provide O&M services for the BESS, provide 24/7 coverage at a staffed control room, provide asset management and energy management services, and control BESS operation during normal and emergency conditions in accordance with NERC, NPCC, NYSRC, NYISO, and Connecting Transmission Owner requirements. NY-BEST recommends that at least two FTE employees would be necessary for a project of this size across all Localities except Zone J, which would require three due to the unique demands of operating in New York City.

I. *Financial Parameters*: The report proposes a 20-year amortization period for BESS of all durations. Previously, AG had recommended a 15-year amortization period to account for the limited operating experience of the technology across durations as well as the inability of investors to quantify the risk presented by uncertain future BESS CAF values over the life of the resource. In reverting back to 20-year amortization, AG instead proposes to account for this risk by increasing both the Cost of Equity and Cost of Debt for BESS by 0.5% over the SCGT. The proposal does not, however, distinguish between the individual investment risk presented by BESS

of different durations. Investors will not ascribe the same level of risk, and, therefore, cost of capital to 2, 4, 6, and 8-hour duration BESS. This reality is based on the well-reasoned and supported expectation that BESS of shorter duration will experience significantly greater movement in CAF than longer duration BESS. For example, between the NYISO's posting of two sets of informational CAFs and final CAFs for the 2024-2025 Capability Year, 2-hour BESS saw a greater reduction in CAF over all other durations, demonstrating that longer duration BESS (6 to 8-hour) is less affected by modeling changes. And NYISO's own analysis, presented on pages 59-60 of the Draft Recommendations, indicates that 2-hour BESS is expected to experience a greater reduction in CAF than longer duration BESS over the 2025-2029 reset period.

J. *Site Leasing Costs During Construction:* The report does not account for site leasing costs during the full construction period, including costs for only 15 out of the 30-month construction timeline. This overlooks the requirement for site control during activities such as NYISO's interconnection studies and permitting.

K. *Site Leasing Costs:* The report continues to significantly underrepresent Site Leasing Costs across all Localities, particularly in Long Island. The report states that 1898 & Co. estimated annual lease rates by escalating the values from the 2021-2025 DCR study using the change in the GDP implicit price deflator. However, this methodology traces back through several studies: the 2021-2025 DCR study escalated values from the 2016 DCR study, which used figures from the 2013 DCR study, which in turn relied on values from the 2010 DCR study. The 2010 DCR study based its values on the 2007 DCR study, which itself used data from the 2004 DCR study. The original 2004 DCR study set lease rates based on confidential data that has been escalated by inflation across multiple decades.

This means that the recommendations for Site Leasing Costs in all Localities except New York City are grounded in two-decade-old confidential information, which cannot be verified or evaluated to determine if the original site conditions—such as size, zoning, and proximity to substations—are still relevant today.

Furthermore, it has been shown twice in Zone J—first in 2010 and again during the current reset period—that escalating by GDP alone significantly underestimates costs. If Site Leasing Costs had only been adjusted for inflation, they would have been off by 303% compared to the current recommended lease rate for Zone J. NY-BEST members state that the deviation from a NYC industrial property expert's recommendation continues to underrepresent Zone J costs, noting that they have entered leases at or above the rate which JLL recommended.

Requests to perform a similar market-based analysis for other Localities have gone unanswered. NY-BEST members report entering lease agreements at rates up to $342,035 per acre-year in Zone K, providing sufficient evidence to suggest that relying on two-decade-old, unverifiable information is no longer justifiable or reasonable.

Finally, the report claims that any underlying real property tax on leased land for the battery storage peaking plant options not covered by an abatement is

assumed to be included in the land lease rate. However, without the original confidential information from 2004, it cannot be confirmed whether the escalated figures indeed include the underlying property tax. Specifically in Zone J, the methodology used clearly does not account for property taxes. For all other Localities, the 2004 DCR study seems to indicate that property taxes were not included in the original Site Leasing Costs, further underscoring the need for a reassessment of these costs based on current market data.

2. **BESS Cost Annual Update**
   For the 2-hour BESS, the report recommends allocating a 62% component weight to the Storage Battery Costs index. This is despite the battery component of the BESS making up no more than 24-32% of the total costs depending on Locality. NY-BEST recommends the NYISO provide a more detailed assessment of the Component Weights and ensure costs are correctly allocated to ensure changes for BESS are accurately captured in the annual update going forward.

NY-BEST appreciates the work by AG and the NYISO to update the Demand Curve to reflect a changing economic and technological landscape. As discussed above, NY-BEST urges the AG to update their modeling assumptions to ensure the DCRP process accurately reflects existing market conditions for energy storage.

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.

Sincerely,

Dr. William Acker
Executive Director
NY-BEST