New York Battery and Energy Storage Technology Consortium, Inc.

VIA ELECTRONIC FILING

May 30, 2017

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza, Agency Building 3
Albany, New York 12223-1350

Re: CASE 15-E-0751 In the Matter of the Value of Distributed Energy Resources – Supplemental Comments on Scope and Process for Phase Two of the Value of Distributed Energy Resources

Dear Secretary Burgess:

The New York Battery and Energy Storage Technology Consortium ("NY-BEST") is pleased to submit these supplemental comments for your consideration in the above referenced case in relation to the **Scope and Process for Phase Two of the Value of Distributed Energy Resources (DER)** Proceeding.

NY-BEST and our 160 member organizations from across New York State and beyond appreciate the opportunity to provide these comments and we stand ready to assist the Department of Public Service (DPS) staff and the Public Service Commission (PSC) in establishing methodologies, and interim methods for valuing DERs.

If you have any questions or require additional information regarding these comments, please contact me at (518) 694-8474.

Respectfully,

Dr. William P. Acker
Executive Director

NY-BEST COMMENTS

CASE 15-E-0751 In the Matter of the Value of Distributed Energy Resources – Supplemental Comments on Scope and Process for Phase Two of the Value of Distributed Energy Resources

INTRODUCTION

The New York Battery and Energy Storage Technology Consortium ("NY-BEST") is a not-for-profit industry trade association that serves as a voice of the energy storage industry for 160 member organizations on matters related to advanced batteries and energy storage technologies. Our membership covers the full span of activities related to research, development, production and deployment of energy storage devices, and currently includes: technology developers ranging in size from small start-up companies to global leaders, leading research institutions and universities, national labs and numerous companies involved in the electricity and transportation sectors.

NY-BEST has been actively engaged in the State's Reforming the Energy Vision (REV) initiative and its related proceedings since its inception and supports NYS Public Service Commission's (PSC) efforts to transform New York's electric industry with the objective of creating market-based, sustainable products and services that drive an increasingly efficient, clean, reliable, and customer-oriented industry. We also support the goals of the State's Energy Plan and the Clean Energy Standard to generate 50 percent of the state's electricity from renewable sources by 2030 and reduce greenhouse gas emissions by 40 percent by 2030 and 80 percent by 2050.

VDER is Critical to Opening New York's Market for Energy Storage

Energy storage is essential to achieving the State's energy and environmental goals. However, the existing regulatory structure does not provide a means for energy storage's unique capabilities to be valued and stacked. As a result, a new market-based mechanism is needed for storage to overcome the current regulatory regime.

NY-BEST is committed to ensuring that methodologies and mechanisms that value energy storage are adopted through Value of Distributed Energy Resources (VDER) proceeding. Importantly, despite the critical role for energy storage in achieving the REV goals, to date, the Commission has not adopted measures that will provide a meaningful pathway to the market for energy storage. For example, energy storage has been either entirely omitted --

or integrated only in very limited ways-- in the utilities' dynamic load management plans, Distributed System Implementation Plans (DSIPs), Earnings Adjustment Mechanisms (EAMs), and Non-Wires Alternatives (NWAs); and, an explicit role for storage has not been built into the Clean Energy Standard. As a result, the opportunities for energy storage in New York are extremely limited, focused only on specific areas such as Con Edison's BQDM. For the state's electric grid to begin to realize the benefits of energy storage, it is, therefore, imperative that the VDER proceeding prioritize the establishment of mechanisms that will monetize the value of energy storage.

Prioritizing the Work for Phase 2 of VDER

NY-BEST appreciates the opportunity to provide supplemental comments and recommendations on Phase 2 of the Value of Distributed Energy Resources (VDER). These comments build on and reinforce our comments submitted to the Commission on December 21, 2016.[1]

Dispatchable DERs and Stand-alone energy storage

As we have stated in previous comments and at the recent VDER Phase Two Organizational Conference held on May 23, 2017, NY-BEST urges the Department, in establishing a framework for Phase 2 VDER, to prioritize dispatchable Distributed Energy Resources (DERs), including both in front of the meter and behind the meter energy storage.

NY-BEST strongly urges the Department to follow the recommendations of the Non-NEM Technologies working group that was established in Phase One of VDER collaborative, the recommendations in the VDER Staff Report which recommended action on stand-alone storage in early 2017[2], and the Commission's VDER Order[3] to address stand-alone storage as expeditiously as possible. ***This continues to be our highest priority.***

[1] NY-BEST Comments to the NYS PSC on Phase Two of Value of Distributed Energy Resources (VDER) Proceeding 15-E-0751, December 23, 2016. http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={7EE6D380-3FAD-4B82-8B6E-AB1DB3CC12F3}

[2]NYS Department of Public Service Staff Report and Recommendations in the Value of Distributed Energy Resources Proceeding 15-E-0751, p. 47 states, "As discussed above, further work is needed to transition non-NEM eligible projects and technologies, which are currently addressed by other programs and tariffs, to a comprehensive VDER tariff. The process for continued development of this area should

To date, the VDER has focused on passive energy and capacity that is derived from solar PV production profile. By focusing on dispatchability of DERs, the Department will allow for consideration of additional high priority value streams provided by energy storage, such as:

1) Enhanced or Local Capacity
2) Ancillary and other Distribution System Services (voltage control, reactive power, etc)
3) Local criteria emissions
4) Environmental Justice and LMI considerations
5) Optionality
6) Distribution system line loss
7) Resilience
8) Equipment life extension
9) Reduced wholesale cost
10) Transmission and distribution (upgrade deferral, congestion relief, etc)
11) Increased hosting capacity and enabling renewables (reduced curtailment)

We recommend that a working group be established to focus specifically on dispatchable DERs and that as part of the group's efforts, work on these value streams be prioritized. NY-BEST recommends that priority be placed initially on further refining local capacity values and enhancing ICAP for DERs to ensure that DERs are properly valued as more DERs are added to the grid. We are concerned that the current approach could have a negative effect on capacity prices for DERs over time because DERs are treated as load and not reflected in the capacity market. Proper valuation of local capacity will also be increasingly important when Indian Point Power Plant closes in 2021 and new resources are brought on line to replace it.[4]

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include: For energy storage systems not co-located with NEM-eligible generation, development of a proposal by early 2017 to enable Commission action in 2017."

[3] NYS Public Service Commission Value of Distributed Energy Resources Order, March 9, 2017, p.49

[4] See Strategen Analysis, "Indian Point Replacement Options", May 8, 2017 https://www.strategen.com/new-blog/2017/5/8/indian-point-replacement-options

NY-BEST is also interested in having the Department expand existing market segments and applying them more broadly to include other technologies. Specifically, NY-BEST is interested in examining opportunities for remote storage to be incorporated into a VDER tariff in a fashion analogous to the CDG concept for solar PV.

Capturing these additional values will support the State's goals of reducing peak demand, improving system efficiency, supporting the increased penetration of renewable energy and improving the environment. Importantly, energy storage provides all of these benefits and yet, energy storage providers remain unable to fully monetize these benefits through existing market mechanisms.

NY-BEST recommends that as part of the VDER effort, new mechanisms be created that are aligned with the State's policy goals, and unlock the many benefits storage technologies can provide to the grid. To achieve the energy future envisioned by REV, we must develop and implement mechanisms that identify these and other values and offer appropriate compensation.

Energy storage technologies provide a variety of solutions with different technologies being utilized to meet quantity, quality, and operational needs. These varied applications also provide different combinations of benefits and value streams. Benefits stacking (i.e., the ability to receive revenue from providing multiple compatible applications), including distribution system level demand management benefits is, thus, important to the value proposition for energy storage – both to fully realize benefits and to properly compensate providers.

However, current market designs do not recognize or value all of these attributes and generally preclude energy storage from providing multiple benefits using the same storage device. An interim approach is needed in the short-term to address this existing market structure which precludes the proper valuation and monetization of storage.

Additional VDER Phase 2 Considerations

Ideally, NY-BEST believes that tariffs established to achieve the REV goals should:

- Ultimately be standardized across utilities (DSPs) and technologies - the tariff construct and technology options should be uniform with locational pricing that has a uniform method of calculation that may result in different tariff pricing by a utility and/or within certain utility locations;

- "unbundle" costs to the end customer to allow multiple benefit streams to storage and other technologies;
- provide for locational and temporal granularity (Because benefits can differ with location down to individual distribution circuits, the degree of locational granularity is important and temporal granularity beyond simply the one or ten peak hours is necessary to fairly compensate assets);
- allow flexibility to respond to market and load conditions; and
- address existing tariffs structures that hinder deployment of DERs such lack of inclusion of storage.
- provide medium to long-term visibility to tariffs that allow DERs to sign long-term contracts.

Structure of Working Groups

As the Department considers options for structuring discussions for Phase 2 of the VDER proceeding, NY-BEST encourages staff to ensure that each DER market segment/technology has a natural "home". In this way, the Department will allow market participants to engage in a more focused and productive fashion rather than trying to spread resources among many generic working groups.

Transactive Marketplace

NY-BEST fully recognizes that the VDER is a complex and long-term process involving continued refinement and improvement as we build a distributed grid that offers fair and accurate compensation to all market participants and compensation of DER for the values they create.

Since the inception of REV, NY-BEST has embraced the following principles and we reiterate them here in an effort to ensure that as the VDER proceeding continues, the Department not only focuses on the value stack but also keeps focus on achieving a fully transactive market.

We have previously articulated that we view LMP+D+E as being at the heart of accomplishing the goals of REV. NY-BEST envisions over the longer term the electric grid to be a bidirectional, transactive, and situationally-aware system that supports the following principles:

- Transactive nodes across the grid, with bidirectional interconnections and "prosumers" (producer-consumers) buying and selling energy products and services;

- The elimination of barriers to entry, allowing new technologies to participate in the electric grid and ensuring that the batteries and energy storage are not excluded;

- The valuation of products and services based on transparent and standardized methodologies, procedures and processes through the unbundling of the costs and benefits of energy resources in providing products and services to the grid, ensuring that each DER's value streams are appropriately and fairly captured; and

- The elimination of competitive barriers so that each resource can participate on a level playing field.

Moving to a full LMP+D market mechanism that encompasses all of the benefits provided by DERs is integral to achieving this vision over the longer term.

CONCLUSION

NY-BEST greatly appreciates the efforts of DPS staff and the Commission to develop methodologies to value DERs. As stated above, we support the goals of the REV initiative and we believe energy storage is a key enabling technology to achieve those goals. As we move forward, our primary concern for the VDER proceeding is that appropriate interim measures, which place a value on all of the services that storage can provide, be put in place in the near term to ensure that New York's grid is able to realize the benefits provided by storage.

NY-BEST views the creation of a system to value LMP+D+E associated with DERs as being at the heart of accomplishing the goals of REV. NY-BEST has actively participated in the Value of DER (VDER) proceeding and collaborative and we look forward to participating in the next phases of the proceeding.

NY-BEST believes there is an immediate need to create new methods that will give confidence, stability, and visibility to future revenue streams for storage and all DER providers. We urge the Department to establish a framework that will provide for

additional interim programs to be created that will animate markets and spur private investment in New York markets.

We appreciate the opportunity to provide these comments and we stand ready to assist the Department, Commission, utilities and all stakeholders as these and other REV-related proceedings continue.