



Battery and Energy Storage Technology Consortium, Inc.

VIA ELECTRONIC FILING

January 9, 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 16-M-0411 – In the Matter of Distributed System Implementation Plans

Dear Secretary Burgess:

The New York Battery and Energy Storage Technology Consortium (NY-BEST) appreciates the opportunity to provide comments on the Supplemental Distributed System Implementation Plans (DSIP) submitted by the Joint Utilities as required by Commission Order in the Reforming the Energy Vision (REV) Proceeding.¹

NY-BEST is a not-for-profit industry trade association that serves as the voice of the energy storage industry for more than 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 organizations ranging in size from small start-up companies to global corporations, leading research institutions and universities, national labs and numerous companies involved in the electricity and transportation sectors.

Our mission is to catalyze and grow the energy storage industry and establish New York State as a global leader in energy storage.

General Comments on the Supplemental DSIP

NY-BEST appreciates the time and effort that the utilities have spent to develop the Supplemental DSIP and to engage stakeholders in the process. NY-BEST commends the Joint Utilities (JU) for the extensive stakeholder engagement plan it put into place for purposes of developing the SDSIP and is grateful to have had the opportunity to serve on the (JU) Advisory Group. We strongly recommend that this engagement continue and we look forward to additional opportunities to meaningfully engage with the JU in the future.

¹ Case 14-M-0101, Reforming the Energy Vision, Order Adopting DSIP Guidance (issued April 20, 2016)

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We have reviewed the SDSIP and have identified some general concerns, as well as some specific areas where we believe additional information and focus is needed for the SDSIP to better align with the goals of REV and other state policy goals. In general, NY-BEST believes that the scope, pace and magnitude of change envisioned in the SDSIP are insufficient to fully transform the State's electric grid. While we fully recognize that the path to achieving the goals of REV must include many incremental steps, we are concerned that the SDSIP leaves a great deal of uncertainty about the future role for DERs in the state's distribution system, incorporates unnecessarily lengthy timeframes and does not provide a clear path or roadmap to a robust and transactive marketplace for DERs. In addition, as we indicated in our comments on the initial DSIPs, NY-BEST remains concerned that the initial DSIPs and now the SDSIP are not fully coordinated and aligned with the goals of the Clean Energy Standard (CES) to achieve 50 percent renewable energy by 2030.

As a result, NY-BEST recommends that the Commission adopt more proactive and directive approaches to ensure that the utilities move forward with specific objectives that will better ensure that the State achieves the CES goals and establishes an animated DER marketplace within established timeframes.

NY-BEST has identified a number of focus areas where we believe additional action by the Commission is needed to ensure the activities of the utilities achieve goals set forth by the Commission in its DSIP Order as well as the State's larger policy goals.

1. Incorporate plans to achieve Clean Energy Standard targets

In the Commission Order on the Clean Energy Standard², the Commission adopted the State Energy Plan goal that 50% of New York's electricity is to be generated by renewable sources by 2030 ("50 by 30"), as part of a strategy to reduce statewide greenhouse gas emissions by 40% by 2030. Given that the Commission in its Clean Energy Standard (CES) Order places the requirement on Load Serving Entities, including utilities, to procure specific amounts of renewable energy,³ NY-BEST believes that the SDSIP should be more clearly acknowledge and link to the CES renewable targets and explicitly incorporate the utilities' plans to achieve those targets. The SDSIP should also expressly identify and plan for the changes that will be necessary to accommodate higher penetrations of renewable energy resources on utility distribution systems.

² Case 15-E-0302, PSC Order Adopting Clean Energy Standard (issued August 1, 2016)

³ Ibid.



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NY-BEST, in our supplemental comments on the CES, shared analyses showing that New York will need to add at least 4 GW of multi-hour storage assets to the grid to meet the energy and emissions goals it has set for 2030. We have also recommended reasonable “no regrets” interim targets for energy storage on the state’s electric grid of **1 GW of multi-hour storage by 2022 and 2 GW by 2025**. These aggregate targets represent conservative near-term achievable goals that we believe should be adopted by the Commission and used to set energy storage procurement targets at the distribution level. To ensure that the State’s CES targets are achieved, NY-BEST urges the Commission to require utilities to expressly incorporate the CES targets, as well as corresponding energy storage targets, in the SDSIP and individual utility DSIPs.

To address energy storage needs, NY-BEST recommends that the Commission set specific targets for the deployment of energy storage that could be implemented across all of the relevant REV proceedings (DSIPs, EAMs, Value of DER, Dynamic load management, Clean Energy Standard). A “REV-wide” target for storage would ensure that storage is incorporated into every relevant REV initiative. The storage target could be structured similar to the REV Demonstration program, and build on the model of that program, where the primary objective is to provide each utility the flexibility to learn from the wide variety of energy storage applications. Storage could be deployed as a Non-Wires Alternative or to increase hosting capacity for example, and those deployments would count towards the storage target. In this manner, the utilities would gain early experience in storage applications and benefits, while also providing extremely valuable lessons for all stakeholders from the grid operators, interconnection staff, local permitting officials, financiers and storage project developers.

NY-BEST would welcome the opportunity to discuss this recommendation further with Department staff, as well as explore additional options for harnessing the benefits of storage.

2. Hosting Capacity

NY-BEST has a number of concerns with the SDSIP with regard to hosting capacity. First, the JU in the SDSIP focuses its attention on mapping hosting capacity through an initial prolonged process. It importantly does not address how the JU will address constrained



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circuits which are identified through the mapping process nor how those constraints will be managed.

In addition, NY-BEST is concerned that the JU did not fully discuss in the SDSIP its plans for managing hosting capacity in the near and long term, especially as increasing levels of renewable resources are being introduced to the distribution system. We note that SDSIP Figure IV-1 “Evolving Distribution System Planning Processes”⁴ does not reflect a relationship between the Hosting Capacity Analysis and the Distribution Investment Plan, which we strongly believe it should. And, importantly, SDSIP Figure IV-2 “Summary of Distribution System Planning Next Steps”⁵ does not include any efforts to increase hosting capacity from 2017-2021. The utilities have acknowledged stakeholder input that there is a need to increase hosting capacity and they reference some of the current REV demonstration projects that incorporate hosting capacity as example of their efforts in this area.

With respect to the hosting capacity methodology proposed by the JU, NY-BEST is concerned that the JU is defining it too narrowly for “passive” or “static” solar PV which cannot easily moderate its impacts on the grid. For example, if solar developers include storage with their installations (as is increasingly the case with the larger scale installations), then the hosting capacity methodology they are proposing will not be appropriate. The SDSIP states, in relation to the Stage 2 Hosting Capacity Analysis, “because the central aim of the Stage 2 maps is to inform DER integration and guide the commercial activities of DER developers, the utilities will carry out this analysis by modeling the impacts of larger, more centralized solar PV installations rather than looking at smaller rooftop solar PV systems dispersed throughout a given area”.⁶ NY-BEST is concerned that if the JU only model this kind of PV, the model will underestimate the hosting capacity of the system. NY-BEST recommends that more sophisticated methodologies be developed for the Stage 2 analysis.

NY-BEST believes that more proactive management of hosting capacity will be extremely important to ensuring that renewable resource integration can be achieved consistent with the timelines and levels of penetration envisioned by the CES. To this end, NY-BEST recommends that the Commission require the utilities to develop plans to address capacity

⁴ Joint Utilities SDSIP, November 1, 2016, p. 28

⁵ Ibid, p. 30

⁶ Ibid, p.52



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constrained circuits within one year of identifying those constraints. Without such a proactive strategy and plans in place, it is likely that customers seeking to install solar or other DER technologies will be prevented from doing so due distribution system constraints.

Further, NY-BEST disagrees with the JU approach to increasing hosting capacity described in the SDSIP, “Efforts aimed at increasing hosting capacity are separate and distinct from the hosting capacity analysis, where the latter is aimed at enabling the capabilities to develop hosting capacity evaluations that inform planning. These two processes can proceed in parallel and will ultimately be informed by one another.”⁷ NY-BEST believes strongly that these efforts should not be separate and parallel because the ability of DERs to increase hosting capacity should be integral to planning, so that procurement of DERs is limited by waiting for a separate process to increase hosting capacity. These should not be thought of as separate processes and procurement of DERs should be designed to increase hosting capacity at the same time.

Finally, NY-BEST believes that additional mechanisms and/or requirements must be put into place by the Commission to ensure that utilities have the proper incentive to increase hosting capacity. At the present time, based on existing regulatory requirements and utility business models, it is not clear what incentive utilities currently have to increase hosting capacity. As a result, NY-BEST urges the Commission to consider additional REV demonstrations, earnings adjustment mechanisms or specific regulatory requirements to ensure the proper regulatory and business model frameworks are in place to address hosting capacity needs.

3. Non-Wires Alternatives Suitability Criteria

NY-BEST appreciates and agrees with the SDSIP’s stated objective for establishing Non-Wires Alternatives (NWA) criteria “to direct developers to the highest potential opportunities and streamline the procurement process for all parties, and not to unduly restrict or exclude projects from consideration.”⁸ NY-BEST, as a stakeholder in the process, continues to stress the need to be inclusive with respect to the types of projects considered for NWA procurement as it is one of the primary means for utilities to support this objective.

⁷ Ibid, p. 57

⁸ Ibid, p. 41



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NY-BEST also agrees with other stakeholders that the RFP processes and bid evaluation should consider broad range of DER characteristics. Notably, NY-BEST believes that attributes and benefits which address public policy goals (CES goals, greenhouse gas reductions goals, etc.) and concurrent potential benefits, such as increasing hosting capacity, should be taken into consideration. Similarly, NY-BEST is concerned that “selecting projects based on cost effectiveness relative to traditional infrastructure projects” fails to take into account additional benefits of the NWA, for example, peak load reduction, environmental goals, CES goals, etc.

In addition, NY-BEST continues to strongly urge the JU to consider the value of “optionality”. Frequently, traditional infrastructure investments require large commitments due to the lack of ability to incrementally apply a solution. For example, if a 50MW increase of load growth is projected in 10 years, the procurement may be for the full 50MW even though there may be significant uncertainty in the load growth prediction. NWA solutions allow for smaller increments to be added over time to address the uncertainty of future load growth projections. It is important that procurement considers future uncertainty and values this “optionality” and incremental solutions.

NY-BEST also disagrees with the 60 month timeframe referenced in the SDSIP for NWA projects as we believe that this lead time can be substantially reduced, especially as more experience is gained with these types of projects. Energy storage projects can be deployed rapidly as evidenced in the recent Aliso Canyon project in California where 50 MW of energy storage projects have been deployed, under an expedited CPUC Order, in under one year.⁹

NY-BEST seeks additional information and clarity on cost suitability criteria and specifically the “company specific cost floor”¹⁰ and how this figure will be determined by each utility. Clearly, this “floor” should not be lower than average traditional solution or it will screen out cost effective projects before they are even considered. Moreover, as we indicated above cost criteria it should allow for consideration of other important policy objectives.

⁹ <https://www.greentechmedia.com/articles/read/california-utilities-are-fast-tracking-battery-projects-to-manage-aliso-can>

¹⁰ Joint Utilities SDSIP, November 1, 2016, p. 46



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NY-BEST recommends that additional transparency be provided for projects that are not deemed by utilities to be NWA Suitable. We urge the JU to publish information on these projects and the basis for the decision.

We also recommend that the JU should establish a path to broaden the scope of the criteria over time to include a greater range of suitability areas and to ultimately establish a project cost threshold (for example \$1 million) for which a project would be automatically considered for potential NWAs.

4. Market Operations

The SDSIP states, “A long term objective of REV is to animate markets at the retail level. As the DSP, utilities will play a leading role in animating markets by creating consistent platforms for the buying and selling of products and services among a broad set of market actors.” NY-BEST is concerned that the path to achieving this vision is missing in the SDSIP. To illustrate this point, the SDSIP refers to VAR support as a possible demonstration project but does not provide a comprehensive or longer-term vision of how products such as VAR support or other products created by “unbundling”, will be evolved and transacted in a marketplace managed by the DSP.

In addition, we fully understand that there are a number of on-going proceedings at PSC that will affect REV and its many components and as a result, many of the details that are needed for DERs to understand the potential pathways to market are not included in the SDSIP. The JU “are deferring to other relevant proceedings for decisions by the Commission regarding enhancements to current Pricing and Program mechanisms,¹¹ and Table VI-1 specifically identifies the other proceedings that are underway. The interdependency of the various proceeding contributes to our general concern that there remains a great deal of uncertainty among DER providers about the path to markets for DERs. We believe that our proposal to establish REV-wide targets for storage in the relevant REV proceedings would help address this lack of clarity, accelerate paths to market and bring enhanced focus to the work being undertaken by the utilities and DER providers.

5. Electric Vehicles

¹¹ JU SDSIP, November 1, 2016, p. 97



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The Commission Order states that the SDSIP also presents the opportunity for “utilities to collaborate in the development of initiatives that will have the effect of reducing carbon emissions, including de-carbonizing the transportation system.”¹² The Commission directed the JU to include in the SDSIP “planning for and enabling increased deployment of electric vehicle supply equipment (EVSE)”.

NY-BEST was pleased to participate in the JU advisory group on EVs as we are extremely interested in growing the Zero Emission Vehicle (ZEV) marketplace in New York State and assisting the State in its efforts to reduce greenhouse gas emissions by 40 percent by 2030 and 80 percent by 2050. New York’s transportation sector accounts for more than 30 percent of the state’s greenhouse gas emissions and represents a significant portion of the state’s economy. In addition, as noted by the SDSIP, New York has adopted a Zero Emission Vehicle (ZEV) Action Plan¹³ to protect air quality, boost economic development within the zero emission vehicle market, help mitigate the effects of climate change, and encourage consumers to make environmentally sound vehicle purchases. Under that program, 800,000 ZEVs must be deployed in New York State by 2025, an increase of approximately 785,000 ZEVs from current levels. Importantly, to achieve the State’s greenhouse gas reductions goals of 80 percent by 2050, nearly 100 percent of the cars sold in New York by 2050 will need to be ZEVs.

Although the JU acknowledges these goals, the approach put forward in the SDSIP does not embrace these goals nor the potential business growth opportunity presented for utilities through the development of the EV market. Electrified transportation can and should support new utility business models being created under REV by increasing sales volumes of electricity, utilizing existing electric infrastructure and thereby improving the economics for all consumers. It does not appear that the utilities are viewing electrified transportation as a business growth opportunity, and as a result are not assuming a leadership role with respect to the deployment of electric vehicles. NY-BEST believes that additional measures are necessary for the State to achieve these important goals.

While the State, through NYSEDA, NYPA, Thruway Authority and the Department of Environmental Conservation regulations, has taken several constructive steps to increase deployment of electrified transportation, NY-BEST believes a more coordinated, multi-

¹² PSC Order Adopting DSIP Guidance, April 20, 2016.

¹³ <http://www.nescaum.org/documents/multi-state-zev-action-plan.pdf/>

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dimensional and comprehensive strategy—involving both the public and private sectors—is needed to achieve substantial emissions reductions and yield major economic benefits for the State. Electrified transportation that is powered by homegrown “fuel” in the form of electricity produced domestically, ideally, solar and other clean renewable energy sources, will keep energy dollars in the state and help to support the State’s economy.

NY-BEST has recommended that the State create a New York Accelerator for Clean Transportation (NY-ACT) within NY-BEST to provide focused leadership, public-private collaboration and a platform to coordinate and help drive a clean transportation agenda for the State. Our goal with NY-ACT is to serve as a resource to State and local agencies, as well as a testing ground for new clean transportation technologies, programs, projects and business models. Through this proposed program, NY-BEST recommends that a State Action Plan for Clean Transportation be created that will identify the major steps that the private and public sectors needs to take together to achieve the State’s clean transportation goals.

Similar to our recommendations above, NY-BEST also recommends that the Commission establish target or goals for the utilities to meet that will advance electrified transportation. Specifically, we urge the Commission to establish targets and a schedule for increasing numbers of demonstration projects for EV charging infrastructure, vehicle to grid demonstrations and other unique business models supporting electrified transportation.

As described above, the State faces significant challenges to increase the wide scale deployment of ZEVs and meet its greenhouse gas goals. NY-BEST urges the Commission to take an active role and use its convening power to foster collaboration with industry, utilities and stakeholders to develop policies that will support and encourage sustainable business models for the deployment of ZEVs. NY-BEST would welcome the opportunity to discuss our recommendations further with Staff.

Conclusion

NY-BEST appreciates the efforts of the Joint Utilities in preparing the SDSIP. We realize the transformation envisioned by REV and CES places significant responsibility on the utilities and we acknowledge the critical role utilities are playing to achieve these important policy goals. NY-BEST believes that more work is necessary to coordinate the activities of the utilities and align them with the goals of the CES to achieve the 50 by 30 renewable energy



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goals, establish a robust transactive DER marketplace envisioned by REV and support that State's clean transportation goals.

We view energy storage as a key enabling technology to achieving these goals and we recommend that the Commission take more specific proactive actions to establish REV-wide targets for storage integration in the distribution system.

NY-BEST appreciates the opportunity to provide these comments and we are thankful for the opportunity to provide input. Should you have questions or need additional information or assistance, please feel free to contact us at 518-694-8474.

Respectfully Submitted,

Dr. William Acker

Executive Director
NY-BEST