



Via Electronic Mail

December 12, 2022

Aida Camacho-Welch
Secretary of the Board
44 South Clinton Avenue, 1st Floor
Post Office Box 350
Trenton, NJ 08625-0350

RE: Docket No. QO22080540, In the Matter of New Jersey Energy Storage Incentive Program

Dear Secretary Camacho-Welch:

Tesla, Inc. ("Tesla") thanks the New Jersey Board of Public Utilities ("BPU" or "Board") for the opportunity to provide written comments regarding the New Jersey Energy Storage Incentive Program (NJ SIP) Straw Proposal (Straw). We appreciate the BPU's initiative in proposing the NJ SIP program to help meet New Jersey's statutory goal of installing 2 gigawatts of energy storage by 2030 in order to increase grid resilience, reduce greenhouse gas emissions, and facilitate greater deployment of clean energy resources. We support many of the program designs proposed by the BPU, including the use of a fixed incentive to motivate increased storage deployment and a separate performance-based incentive to encourage the operation of storage assets in beneficial ways. However, as currently proposed, the distributed behind-the-meter (BTM) incentive design would limit the NJ SIP's efficacy by failing to leverage the value of grid services provided by BTM storage resources that already have been deployed. Similarly, the fixed incentive as proposed in the Straw appears suboptimal for BTM resources by not establishing a carve out for residential-sited storage and by establishing undersized procurement blocks that are likely to lead to programmatic incentive cliffs. In our comments we request that the BPU adopt programmatic principles for performance and fixed incentives that have found success elsewhere. To address these issues, we recommend:

- I. The BPU should direct that all BTM storage systems be eligible to receive the NJ SIP Distributed performance-based incentive regardless of whether the system is subscribed to an NJ SIP fixed incentive capacity block.

- II. The BPU should direct Electric Distribution Companies (EDCs) to create a Distributed performance-based incentive that will encourage broad participation by employing an uncomplicated price signal and settlement based on inverter telemetry.
- III. The BPU should direct EDCs to have no availability or performance requirements for distributed resources in any part of the NJ SIP.
- IV. The BPU should modify the Straw's fixed incentive by creating a carve-out for residential systems, eliminating intra-year blocks, and eliminating incentive cliffs.

Tesla's mission is to accelerate the world's transition to sustainable energy through the deployment of hardware and software solutions that support rapid electrification and create affordability and access to energy resiliency solutions. We are pleased to submit the following written comments.

- I. **The BPU should Direct that all BTM Storage Systems be Eligible to Receive the NJ SIP Distributed Performance-Based Incentive Regardless of Whether the System is Subscribed to an NJ SIP Fixed Incentive Capacity Block.**

In Stakeholder Meeting #3 held on Nov. 14, 2022, BPU staff stated that under the Straw's program design, only BTM storage systems that had been selected to be subscribed to a fixed incentive capacity block would be eligible for the Distributed performance-based incentive portion of the NJ SIP. However, the plan to restrict a pay-for-performance program to only a subset of BTM storage systems on the grid would significantly limit the efficacy of such a program by failing to leverage the substantial value of existing BTM storage systems and that of storage systems that are not selected for a capacity block. New Jersey's statutory target of installing 2 gigawatts of storage by 2030 exists so that storage can be used to the benefit of residents and the grid as a whole. The state will benefit most from installed storage when it optimally leverages the extensive value that customer-sited storage can provide regarding grid stability, facilitating greater deployment of clean energy resources, and reducing load during periods of peak demand. If participation is limited in the NJ SIP, the BPU would fail to leverage a sizable subset of that value. Instead, we recommend that the BPU direct that all New Jersey-based BTM storage systems be eligible to receive the NJ SIP Distributed performance-based incentive regardless of whether the system is subscribed to an NJ SIP fixed incentive capacity block.

Our recommended eligibility for the NJ SIP performance incentive is in line with best practices employed by other states and utilities. In its Straw, BPU Staff states that it patterned its performance

incentive for distributed storage resource “off of the ConnectedSolutions program utilized in Connecticut and Massachusetts.”¹ However, the ConnectedSolutions program performance incentive is available to all installed batteries – not only new battery systems and not only battery systems selected for a limited-capacity program.² Similarly, when the California Public Utility Commission in 2021 created the Emergency Load Reduction Program – which called on BTM batteries to discharge during times of peak demand in order to relieve significant grid stress – the program was opened to all participants specifically so that it would leverage existing resources to provide immediate value to the grid.³

Those programs found success by recognizing that compensating customers for battery demand response is not a subsidy; it is a procurement of a service capable of providing immense value to the grid. While the BPU may have concerns regarding perceived over-procurement or over-participation of BTM batteries if the performance incentive is open to all, the BPU will have the opportunity to further tailor the NJ SIP program design and price signals in future years based on early program results. On the other hand, if BPU limits participation to only battery systems that received the fixed incentive, it will be stuck attempting to procure its desired grid services from a much smaller pool of potential participants. Every BTM battery has the capability to displace dirty fossil-fuel peaker plants, allow more renewable resources to be dispatched during peak hours, and simultaneously relieve grid stress. The BPU should not limit that benefit in the NJ SIP.

II. The BPU should direct EDCs to Create a Distributed Performance-Based Incentive that will Encourage Broad Participation by Employing an Uncomplicated Price Signal and Settlement Based on Inverter Telemetry.

We are supportive of the Straw’s proposals that the performance incentive be “a simple \$/kWh payment.”⁴ In order to achieve the simple payment design, we recommend that the Board direct EDCs to adopt uncomplicated single-system payments that compensate for energy, capacity and other grid services rather than more complex geographically variable performance incentives, which can be confusing to customers. Attempting to provide nuanced geographically-diverse price signals to customers

¹ See BPU Staff New Jersey Energy Storage Incentive Program Straw Proposal, Docket No. Q022080540 (Sept. 30, 2022), at p. 25.

² Eversource. “Demand Response For Home Battery Storage.” <https://www.eversource.com/content/ct-c/residential/save-money-energy/energy-efficiency-programs/demand-response/battery-storage-demand-response>

³ California Public Utilities Commission. “Emergency Load Reduction Program.”

<https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/demand-response-dr/emergency-load-reduction-program>

⁴ See BPU Straw, at p. 25.

based on localized needs can make incentive programs overly complex, and in turn can complicate customers' decisions about whether to participate.

We also are supportive of the Straw's proposal that customers should be compensated for "either injecting energy into the distribution system or by reducing the customer's consumption."⁵ The most cost-effective way to facilitate such a design is to allow for customers to be compensated based on data from their battery system's inverter telemetry. The inverter already measures battery discharge without the need for an additional utility production meter, and allowing for the performance incentive to be based on inverter telemetry would obviate the need for costly retrofits to install superfluous utility production meters, which would be a waste of ratepayer funds. Other utilities have successfully used inverter telemetry as the basis for battery demand response program, including California's Emergency Load Reduction Program.

III. The BPU should direct EDCs to have no availability or performance requirements for distributed resources in any part of the NJ SIP.

In the Straw, BPU Staff proposes that the Distributed performance incentive be an active dispatch program in which "responding to calls should be voluntary for the consumer."⁶ We support this active dispatch program design. Providing customers with the ability to fully control and make operational decisions of their own systems not only creates better customer experiences, it also leads to less complicated and more effective programs. It is for this reason that in response to BPU Staff's question regarding the potential for performance or availability requirements as part of the fixed incentive portion of the NJ SIP, we recommend that the BPU direct EDCs not to have any availability or performance requirements for distributed resources in any portion of the NJ SIP.

Adding availability requirements to the program is at odds with best practices and could significantly complicate the program and dissuade participation. Tesla has opted not to enroll our customers in other storage incentive programs due to burdensome programmatic requirements that would have prevented customers from fully controlling their battery systems. For example, in late November, Connecticut's Public Utilities Regulatory Authority (PURA) in a Proposed Decision changed participation rules in the state's Energy Storage Solutions Program due to low enrollment. In that decision,

⁵ *Id.*, at p. 26.

⁶ *Id.*, at p. 26.

PURA cited Tesla's lack of participation due to concern that a passive discharge requirement in the program "would compromise Tesla's customer experience and value proposition."⁷

IV. The BPU should Modify the Straw's Fixed Incentive by Creating a Carve-out for Residential Systems, Eliminating Intra-Year Blocks, and Eliminating Incentive Cliffs.

In the Straw, BPU Staff proposes relatively small initial annual procurement for the Distributed fixed incentive, with total block capacities of 40 MWhs in program year 2023-24 and another 40 MWhs in program year 2024-25. Those blocks are further broken up into even smaller intra-year block capacities that are spread out across a given program year, with a declining fixed incentive between intra-year blocks. While we recognize the challenges in designing a finely tuned declining block program, the Straw's Distributed fixed incentive program as currently designed is overly complex, could result in residential battery systems being "boxed out" of the Distributed incentive, and could create programmatic cliffs that lead to a "boom-bust" cycle of installations. To fix these issues, we recommend the BPU modify the fixed incentive to create a fixed-incentive carve-out for residential battery systems, by eliminating intra-year blocks, and by eliminating potential incentive cliffs by ensuring block capacity is always available.

A Distributed fixed incentive carve-out for residential battery systems is needed because commercial BTM batteries can be quite large, and a single project could use up an entire capacity block before residential systems ever have a chance to apply. If Distributed program applications are processed on a first-come basis, then each block's capacity is likely to be subscribed to primarily by whichever large commercial projects are first in line. The BPU can fix this by creating a carve-out within the program's Distributed fixed incentive for residential systems so that residential battery customers will not have to compete with commercial customers for program capacity.

The Straw's proposed structure for fixed incentives – of having firm annual procurement targets broken up into intra-year capacity blocks – creates too much uncertainty for developers and installers by incentivizing storage installation when program capacity exists but potentially dissuading installations when program capacity is full. This issue is compounded by a design that would create several intra-year programmatic "cliffs" that would require customers and installers to constantly monitor whether a given program block is open or closed, and could cause customers to choose to delay installation until a future

⁷ See PURA Proposed Decision, Docket No. 22-08-05 (Nov. 23, 2022), at p. 33, available at [https://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/1f438e22817d2aae852589030070c957/\\$FILE/22-08-05%20PFD.pdf](https://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/1f438e22817d2aae852589030070c957/$FILE/22-08-05%20PFD.pdf)

block opens. Limited-capacity declining block programs in other states have faced similar “boom-bust” cycles of clean energy installation when incentive programs unintentionally created an impetus for customers to delay installation to align with program blocks. When customers can save thousands of dollars by delaying installation by several months, the decision to wait can make sense. To fix these issues, we recommend that the BPU eliminate the smaller intra-year block sizes in which annual targets are broken up into smaller chunks. We also recommend that BPU create a fixed incentive design that avoids programmatic cliffs and ensures continuity between blocks by not arbitrarily aligning blocks with energy years. Instead, we recommend that when one capacity block fills, the next block should begin immediately. While this recommended design would create the potential for intra-year blocks if one block is filled and another opened, the intra-year blocks in our recommended design would be larger and would cause less uncertainty among installers and developers. Alternatively, the BPU could opt to increase block sizes in early years to size the program in a way that avoids the potential for programmatic cliffs.

V. Conclusion

Tesla welcomes the creation of the NJ SIP to help New Jersey meet its statutory storage targets and to leverage battery storage for the benefit of ratepayers, the grid, and program participants. Our recommended program modifications would increase the likelihood that the NJ SIP achieves its stated aims, and we urge the BPU to adjust the program accordingly. Thank you for the opportunity to provide written comments.

Sincerely,

/s/ Jordan Graham

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