
December 18, 2024

New Jersey Board of Public Utilities
44 South Clinton Avenue, 7th Floor
P.O. Box 350
Trenton, NJ 08625-0350
Board.secretary@bpu.nj.gov
Attn: Secretary Sherri L. Golden

SUBMITTED TO THE DOCKET

RE: Docket No. QO22080540 – New Jersey Energy Storage Incentive Program

Dear Board Secretary,

Jupiter Power LLC (Jupiter) submits these comments in response to the New Jersey Board of Public Utilities (BPU)’s request for stakeholder feedback on the 2024 updated straw proposal for the New Jersey Storage Incentive Program (2024 SIP).

Jupiter is a leading developer, owner, and operator of standalone, utility-scale battery energy storage projects in the U.S. We have one of the largest portfolios of operating projects domestically, with nearly 3 GWh of projects in construction or commercial operation and 12,000 MW in development from California to Maine—including 400 MW of battery storage projects in development in New Jersey.

Jupiter has been working and investing in New Jersey since early 2020. We hope our projects in development can play a major role in supporting the state’s 2 GW storage goal by 2030. Our 400 MWs of projects proposed for New Jersey represent 20% of the state’s storage goal and are some of the most mature and well-advanced in the development stage statewide. These projects represent multi-hundred-million-dollar investments in New Jersey communities, built with well-paying union jobs, ready to deploy in advance of 2030.

Jupiter thanks BPU for opening this process and recognizing the vital role that battery energy storage will play in supporting New Jersey’s efforts to ensure reliable, affordable, and emissions-free power.

Summary of Comments

Given our utility-scale approach, Jupiter focuses these comments on policy solutions for larger (5 MW and above) *transmission-connected, standalone battery energy storage systems*, and does not weigh in on BPU’s proposed program structures for distribution system-connected projects

or behind-the-meter projects connected to a home or business. These transmission-connected projects would be under BPU's proposed Grid Supply program umbrella.

Time is of the essence to finalize and launch the Grid Supply program. To date, New Jersey's implementation path for storage has stalled, with the state far from achieving its 2 GW by 2030 storage goal.¹ But the state now has the opportunity to move quickly and decisively to launch an effective storage program that will support investment and get battery energy storage projects built at the scale (and pace) needed to further clean energy goals, enhance reliability and affordability, and make the state a leader in energy storage development.

As described in more detail below, unfortunately the 2024 SIP Grid Supply proposal lacks the requisite program elements for transmission-scale developers to meaningfully participate. Specifically, it fails to specify contract length for incentives, upfront procurement size, or a structure and funding source for contracts. Without these details, developers are left with considerable uncertainty as to whether the Grid Supply program slated for release in early 2025 will be responsive to the commercial realities of larger transmission-connected storage projects.

We urge BPU to build more specificity into the 2024 SIP to ensure that large-scale transmission-connected projects are able to participate in the Grid Supply program and have the policy support to proceed to the next phase.

Jupiter thanks BPU for the development of 2024 SIP and for this stakeholder process. In addition to providing comment on three critically-needed program design elements, we provide responses to a subset of the specific questions BPU is seeking comment on. We have not commented on every question but have focused on the most pressing issues in developing the Grid Supply program. The lack of comments on specific questions does not imply agreement or disagreement with Staff's recommendations regarding those topics.

We look forward to continued conversations with the BPU and reviewing the next iteration of the 2024 SIP.

Respectfully Submitted,

Samantha Williams

Senior Director of Strategic Projects and Market Development
Jupiter Power LLC

¹ Of note, modeling conducted for New Jersey's Energy Master Plan suggests that the state needs *substantially more* energy storage than the 2 GW currently called for in state law, estimating that need at between 9 and 11 GW by 2050. N.J. Bd. of Pub. Utils. et al., 2019 New Jersey Energy Master Plan: Pathways to 2050 at 287 (2019), https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

BPU Must Expedite a Well-Designed Grid Supply Program to Reach 2030 Storage Goals

As a preliminary matter, we urge the BPU to follow through with its proposal in the 2024 SIP to expedite implementation of the Grid Supply program by launching competitive procurements in early 2025. Currently, 3,700 MW of energy storage projects are in the PJM interconnection queue. While it is unclear how many of these projects will ultimately be built, there is a cohort of 1,200 MWs of more mature projects that have advanced further in the interconnection process that are in the expedited (“fast track”) and transition cycle #1 phases.² These projects have critical investment decisions coming up in 2025, and will need decisive policy support as soon as possible in 2025, in advance of making final PJM payments to interconnect to the transmission grid, execute interconnection agreements, and start the process of seeking financing ahead of construction. Launching the first procurements in early 2025 will help maximize the participation of mature projects further along in their development cycles, that are facing near-term commercial decisions and will be relying on state-supported commitments to move to the next phase.

Expediting the Grid Supply program is essential to ensure sufficient storage resources are online in time to support New Jersey’s 2030 clean energy goals. Construction typically takes two (or more) years from entering into contracts for offtake. Given this, mature projects must lock in long-term commitments through a state program by 2025 in order to have the lead time to get built and come online by the late 2020s.

Barring a program that launches in 2025, some of the projects in New Jersey’s PJM queue will likely not move forward, imperiling the state’s 2030 clean energy goals.

In addition to launching the Grid Supply program expeditiously, we urge BPU to amend and supplement the program as drafted in the 2024 SIP to address the following critical areas:

1. Long-term commitments of at least 15 years
2. Sufficient program size and project maturity metrics
3. Structure of procurement contracts

1) Long-Term Commitments of at least 15 years

The 2024 SIP proposes to forego long-term commitments in lieu of one-time, upfront payments to developers. We strongly recommend that BPU revise the payment structure for the Grid Supply program and consider a commitment for fixed payments over time, only adjusted based

² PJM queue data available upon request. There are approximately 1,222 MWs of standalone battery storage (greater than 5 MW in size) in the PJM queue for New Jersey across both the expedited (“fast track”) and transition cycle #1 projects, which are the projects that are most advanced in their interconnection studies and will be most capable of coming online before 2030.

on well-defined and simple performance metrics. Projects that demonstrate long-term contractedness have a greater likelihood of securing the financing necessary to move into the construction phase. Projects with an upfront award that are dependent on the future rollout of some performance-based mechanism are highly unlikely to move forward with major capital commitments and construction. In essence, a 2025 Grid Supply procurement that intends to fund only a portion of the revenue gap for projects, with a plan to fill the remaining gap with a later performance-based program, will not be successful in moving projects forward.

Upfront incentives as a sole funding mechanism may work for smaller-scale storage projects not participating in wholesale markets, or where the long-term view is uncertain; however, for capital-intensive large-scale projects, long-term contracts are now standard in state-supported programs.³ A long term approach mirrors contracting structures for other utility-scale renewables procured by the BPU, such as offshore wind or the CSI Solar program. Long-term contracts for storage, similar to renewables, unlock lower financing costs, ultimately leading to more cost-effective bids and reduced costs for ratepayers, all while amortizing those costs over time. They also match the expected payback period of large, commercial projects that operate in the wholesale market, typically in the 15-20 year timeframe.

BPU's 2022 SIP proposed a structure for the Grid Supply program that would pay out contracts over 10 to 15-year terms, giving developers the long-term revenue outlook necessary to secure financing. We strongly urge BPU to reinstate that critical element of the program.

A commitment may come via a board order authorizing an award of funds for a defined period, a contract with the BPU administrator, or other mechanism, as long as the commitment is binding and may not be revoked without legislative action. Importantly, a long-term commitment does not necessitate implementing an unproven complex GHG-based performance structure. The commitment may compensate projects for specific functions, like delivering capacity to the PJM market, or may simply be an incentive that adjusts with a project's availability to ensure projects remain operational and effective in the market.

2) Sufficient program size and appropriate maturity requirements

We recommend that BPU open up a large enough procurement block for the transmission-connected program to capture as many mature storage projects in the state's PJM queue as possible. As currently drafted, the 2024 SIP is silent as to the size of the procurement blocks.

³ See, for example, New York State, Massachusetts, Connecticut, and Maine, with legislation pending in Illinois for long-term procurements of battery energy storage.

Given the high levels of renewable energy expected to come online in New Jersey this decade, we must get the storage program right now. And right-sizing the program is necessary to align the build-out of transmission-scale storage with these clean energy assets.

For example, BPU’s 2022 SIP proposed segmenting smaller annual capacity blocks and weighting the size of those blocks more heavily in the outer years until 2030. The 2024 SIP does not indicate whether BPU intends to move forward with this approach or opt for a larger upfront procurement. Either way, not moving ahead with a program of sufficient size to capture the mature projects in the PJM queues (e.g., 500 MW), could exclude valuable MWs of mature storage projects and impact the diversity of projects and developers that would otherwise have contributed to New Jersey’s clean energy goals.

Given the more than 1,200 MW of mature projects in the PJM queue, we recommend that New Jersey start with a minimum 500MW competitive, grid-scale procurement in 2025. Any program size smaller than this could result in attrition of large-scale projects that have been in the PJM queue and looking to build in New Jersey for years.

Furthermore, the size of the standalone storage program being proposed in the 2024 SIP is already limited by the Competitive Solar Incentive (“CSI”) Program for solar co-located with storage—to which BPU has allocated half of the 2 GW state storage goal. Right-sizing the transmission-connected program in its early years, to ensure as many MWs as possible of large-scale storage have the opportunity to compete for contracts, will be key to ensuring significant levels of storage projects are ready to come online by 2030.

We also observe that BPU’s proposal to require projects to reach COD within 550 days of a project receiving its award must be revised.⁴ Transmission-scale projects take time to finish development, procure financing, and construct, all taking place after once they receive awards. This means that projects that are selected in a Grid Supply program in 2025 will have a likely COD date of late 2028 at the earliest. We recommend that BPU set commercially-achievable CODs for projects that meet the realities of development—at least 2 to 3 years from receipt of state support.

⁴ On this point, there is some confusion between the BPU’s 2024 SIP notice and the proposal Rule. In the SIP notice, at 15-16, Staff proposes that projects must demonstrate that they plan to achieve commercial operation **within 550 days of receiving an award** from the Board,” whereas in the proposed Rule at 14.3(l)(1) it provides “the Planned COD must be no more **than 550 days after the date of the execution of the GIA.**” (emphasis added).

3) Structure of procurement contracts

Finally, the 2024 SIP does not specify the form of contracts that would be entered into with selected projects, nor the source of funding for those contracts. Jupiter urges the BPU to select a structure for long-term contracts that is the most straightforward and able to be developed and implemented on an expedited schedule. While that would ideally be a full “tolling” agreement that provides revenue certainty to projects, time is also of the essence. Given the timing constraints, we recommend that BPU remit the fixed incentive payments over a 15-20 year term directly funded via the Societal Benefits Charge (“SBC”). The SBC is a consistent source of funding already collected on customer bills and approved on an annual basis. We urge BPU to commit fixed incentive payments from the existing pool of SBC funds that are allocated via the Clean Energy Program, over the long-term through a Board Order, locking in support for selected projects in a structure that enables developers to secure low-cost financing for storage projects.

We recognize that BPU may opt in the future to leverage a different source of funding for future Grid Supply procurements. In that event, Jupiter recommends that BPU build into the Grid Supply program the flexibility to establish a successor structure for funding previously-selected projects, such as through a rate-based tariff mechanism, in lieu of through the SBC. This would bring the Grid Supply program more in line with the structure for existing large-scale renewables procurement programs already in place in New Jersey. We note that given the 2028 or later commercial operations date of large projects, the BPU will have ample time to develop this successor funding mechanism. A successor funding mechanism does not necessitate revisions to a project’s incentive structure, but can merely reallocate the source of the funds.

We also recommend that BPU establish an annual review of the Grid Supply program, similar to Connecticut PURA's annual review of their battery energy storage program.⁵ Establishing this formal process would not only be an opportunity to examine New Jersey’s progress toward the 2 GW storage target and the impacts of the storage programs, but also to review the SBC funding structure for long-term contracts and ensure that it continues to meet the needs of both the state and developers. In the event BPU, working in concert with stakeholders, opts to select a different funding source for future Grid Supply procurements, this annual review process would be an effective forum in which to iterate on a possible successor program.

⁵ See, Docket No. 17-12-03RE03, July 28, 2021 *Decision, Investigation into Distribution System Planning of the Electric Distribution Companies—Electric Storage*, Connecticut Public Utilities Regulatory Authority, p. 43, available at 17-12-03RE03 FD

Responses to Specific BPU Questions on the 2024 SIP

Jupiter responds to select questions raised in the 2024 SIP specific to the Grid Supply proposal.

Should a performance incentive based on net avoided emissions be proposed only if PJM or another entity produces a day-ahead, marginal emissions signal?

In the 2022 SIP review, Jupiter expressed the need for an effective program design for any GHG-based performance incentive, and the necessity for accurate and timely data to ensure that a performance incentive program does not detract from the state’s primary objective of deploying energy storage resources that enable and accelerate the transition to clean energy and grid decarbonization. At that time, we made clear while we support using existing market structures, namely PJM’s LMP pricing, to determine performance-based incentives, barring a reliable data source it would not be prudent to develop and implement a new signal for developers.

In 2022, PJM expressed that their marginal emissions data was not fully developed, which might impact the effectiveness of a performance incentive. It is our understanding that those data remain not fully developed today. Given that, we recommend that BPU continue with its proposal in the 2024 SIP to delay implementation of any performance-based incentive until the BPU and stakeholders can develop a program that accurately incentivizes the environmental value of energy storage, including its facilitation of the decarbonization of the power sector. The 2024 SIP appears to give the BPU sufficient space to make such a determination in the future, while proceeding with a competitive procurement approach in the Grid Supply program in the immediate term.

In the absence of a day-ahead emissions signal, should the SIP institute another form of performance incentive for Grid Supply projects?

A long-term commitment by the BPU does not require implementing a complex emissions-based signal structure. Instead, a commitment may compensate projects in fixed period (monthly, quarterly or annually) for specific market functions, like delivering capacity to the PJM market, or may simply be an incentive that adjusts with a project’s availability (measured in basic operational metrics) to ensure projects remain operational and effective in the market. Other states, like in Connecticut and New York have implemented structures with compensation that varies based on energy pricing variability in the market – we caution those structures took many years to implement, so the BPU approaching these concepts at this late stage may not be prudent.

What other changes or alternatives would you propose to the GHG Performance Incentive?

As discussed above, we do not believe a GHG Performance Incentive is necessary to provide a long-term commitment to projects while ensuring they remain active and performing in the PJM market. Other, simpler structures should be considered to expedite the implementation of a long-term structure.

How can the Board mitigate the risk of Grid Supply projects not operating/performing after receiving upfront incentives?

- **Are the reporting requirements proposed herein sufficient?**

An upfront incentive is inherently a flawed program design given the potential for a project to cease operations after receiving upfront incentives. The BPU would have to implement complex clawback clauses, with rights to impound a site for failure to report data, for example. For energy storage projects that require active management through participation in the wholesale markets, which is the case for Grid Supply projects, there are complex maintenance and operational costs. The costs may not be worth incurring through a project's lifespan without the BPU's ongoing incentive to operate.

- **Should there be a clawback clause to recover fixed incentive payments from energy storage systems that cease operating shortly after coming online?**

While such a clause should be considered, the prospect of clawing back funds from a project owner that has, for example, undergone a bankruptcy proceeding, appears difficult, and would require extensive legal resources from BPU staff. Comparatively, a long-term incentive structure allows the BPU to simply stop payments in the case of a project that ceases operation.

Should Grid Supply energy storage projects that replace or demonstrably reduce the run-time of fossil-based peaker plants in overburdened communities be evaluated solely on price or receive additional weight or a preference in competitive solicitations? If additional weight or preference is warranted, please specify how.

We believe that basing bid selection, at least in part, on projects that further New Jersey's policy goals—such as brownfield redevelopment, siting energy storage in locations that have been overburdened by fossil-fired power, reducing emissions burdens on environmental justice communities, etc.—is sound policy for BPU's Grid Supply program. We recommend allocating relative weight for bid selection, especially in a competitive procurement, to both price and non-price factors to help avoid a race-to-the-bottom competitive procurement that values only the lowest bids, while ensuring both that the state is focusing on the most high quality projects capable of advancing to construction and that provide a variety of benefits to New Jersey and its residents.

We recommend that non-price factors take into account the varied ways projects support the energy transition. This includes projects that replace or reduce the run time of peaker plants, but should also include projects on retired plants generally (not in OBCs), projects on brownfields, and projects in overburdened and environmental justice communities that prove benefits to those communities.

There is strong precedent for storage programs including non-price factors in bid selection, including in New York and Connecticut. New York, for example, is proposing to base at least 40% of a bid's selection on a variety of non-price factors, including project maturity, value to the electricity system such as reliability and peaker displacement potential, and societal and economic benefits such as to disadvantaged communities.⁶ Jupiter would support a similar weighting of project bids in the context of the New Jersey Grid Supply program. We also reiterate our support articulated in the 2022 SIP process for an incentive adder in the Grid Supply program for projects that demonstrate direct benefit to overburdened communities.

⁶ See NYSERDA, Case 18-E-0130, *In the Matter of Energy Storage Deployment Program Bulk Energy Storage Implementation Plan Proposal*, October 18, 2024.