September 19, 2023

Sherri L. Golden
Secretary of the Board
New Jersey Board of Public Utilities
44 S. Clinton Avenue., 1st Floor
Trenton, NJ 08625-0350
Submitted via Online Docket System

RE: Request for Information, In the matter of the New Jersey Energy Storage Incentive Program Docket No. QO22080540

Dear NJBPU Representatives,

We appreciate the opportunity to participate in this process and the Board's consideration of our responses to the Request for Information. TigerGenCo is the owner/operator of the Bayonne Energy Center, a nominally rated 644 MW dual-fuel peaking power plant located in Bayonne, NJ and the Red Oak Power facility, a nominally rated 821 MW natural gas fired combined cycle facility located in Sayreville, NJ. TigerGenCo is also contemplating energy storage development projects throughout the state.

TigerGenCo enthusiastically supports the Board's efforts to gather stakeholder information through this Request for Information. Below, please find the Board's informational requests and our responses.

1.0 Utility Ownership/Dispatch Control

The Straw "does not propose to allow for utility ownership or operation of devices," but notes that "EDCs will play a key role in building the grid infrastructure necessary to enable the effective dispatch of energy storage devices." This proposal was intended to encourage private ownership and operation of energy storage devices and the development of a robust energy storage sector in New Jersey's restructured competitive market.

1.1 What are the advantages and disadvantages of utility control versus non-utility control of energy storage systems?

Response: No comment at this time.

1.2 For Distributed resource Performance-based Incentives, should responding to a utility signal be compulsory or voluntary?

Response: The assumption would be that a Distributed Resource would be behind-the-meter and not dispatched by PJM nor a utility, however, would be a load source during its charging mode. The entity operating and consuming the energy from the distributed resource would not be responding to a signal, although it would use its distributed resource to maximize economic benefits.

1.3 For Grid Supply resources Performance-based Incentives, should responding to a market signal be compulsory or voluntary?

Response: Grid Supply resources will be responding to a market signal from PJM.

2.0 Installed Storage Targets, Deployment Timelines and Capacity Blocks

The Straw set annual installed energy storage targets that increase over time (see section V. D. of the NJ SIP Straw Proposal for details).

2.1 How should capacity blocks be structured and proportioned, both within each component of the NJ SIP (Grid Supply and Distributed) and relative to each other?

Response:
We support the initial allocation from the straw proposal and maintaining a significant majority of the annual quantity to be allocated to the Grid Supply resources. Large grid supply projects best position NJ to meet its 2030 energy storage targets cost-effectively.

Additionally for Grid Supply projects, TigerGenCo recommends that the NJBPU consider increasing the MWh size of blocks as incentives decline. PJM capacity and ancillary service revenues for energy storage projects will decline as project penetration increases. Escalating the size of blocks as the incentive steps down will help private industry adjust to dynamic market conditions by smoothing out one aspect of revenue risk for projects.

2.2 Should the proposed first-come, first-served application process be changed to a "First-Ready, First-Served" process?

Response: Yes, we strongly recommend a First Ready, First Served process. TigerGenCo recommends that the NJBPU require projects to demonstrate local permitting engagement and experience with similarly situated projects in order to reserve capacity in a declining block. In addition to demonstrating a project's viability and commitment, we do not believe that the deposits outlined in the straw proposal were high enough to curb speculative behavior by developers. TigerGenCo recommends that the NJBPU adopt a block reservation fee of one-fifth of the capacity block award value reserved by the project and that distributed projects targeting LMI customers be exempted from this requirement.

2.3 How should the program be designed to avoid or minimize interconnection delays? Should the interconnection process be modified for accommodating energy storage and if so, how?

Response: Yes, the program should be designed to avoid and minimize interconnection delays. TigerGenCo recommends that the NJBPU closely follow PJM's recent interconnection reforms and any resulting stakeholder processes. It is very possible that the interconnection process updates to be implemented by PJM resolve many of the past interconnection issues.

3.0 Incentive Structure

The NJ SIP incentives are proposed to be comprised of two incentive payments, a Fixed Incentive and a Performance-based Incentive (see section V. E. of the NJ SIP Straw Proposal for details).

3.1 Incentives are meant to cover a portion of the fully installed cost of an energy storage system. What is the fully installed unit cost (in $/kWh) for energy storage systems at present,

and estimated to be each year through 2030? How do New Jersey-specific costs vary from these estimates? Please provide links to your references.

Response: We are seeing fully installed unit costs ranging from $500 - $850/kwh dependent on equipment type used, interconnection costs, and land arrangements.
Example: A 50mw/200mwh energy storage facility turn-key that costs $150 million dollars equates to a $750/kwh fully installed unit cost.
We expect equipment costs to decrease over time. However, interconnection, land, and labor costs are dependent on other factors.

3.2 What are the best public data sets for energy storage costs?

Response: No comment at this time.

3.3 Should Fixed Incentives be assignable to an aggregator? Why or why not?

Response: No comment at this time.

3.4 Should a Distributed energy storage resource that can provide grid services have the ability to opt in to either the Grid Supply or the Distributed storage program, for both the Fixed and Performance-based incentives?

Response: No, a resource may only be able to participate in its associated Grid Supply or Distributed program.

3.5 The Straw proposes the use of the PJM Marginal Emission Rate ("MER") signal as a basis for Performance-based Incentives for Grid Supply energy storage systems. Is or will the PJM MER be sufficiently developed to use to calculate NJ SIP Performance-based Incentives?

Response: No, the PJM MER signal should not be used as a basis for Performance-based Incentives. Another mechanism to incentivize the potential environmental benefits should be utilized. More discussions on these mechanisms will need to be coordinated with the stakeholders. An incentive based on a resource's ability to bilaterally procure charging energy for a designated "renewable resource" should be contemplated as a potential mechanism.

3.6 Is there a different methodology that can be used to determine Performance-based Incentives, such as a Peak Demand Reduction program?

Response: Yes, Peak Demand Reduction can be used as a variable to determine Performance-based Incentives.

3.7 If a Peak Demand Reduction program were to be developed, how should it be structured? What other states have similar programs that New Jersey should use as a benchmark?

Response: No comment at this time.

3.8 What degree/percentage of Peak Demand should be targeted for reduction? What effect would such a program have on GHG emissions?

Response: No comment at this time.

3.9 The Straw proposed that each EDC establish its own level of Performance-based Incentives. Should EDCs establish EDC-specific performance incentives, or should the incentive be standardized and common to all EDCs?

Response: No comment at this time.

3.10 Should energy storage owners be permitted to opt in, or be subject to utility control, in order to be eligible for Distributed performance incentives?

Response: No comment at this time.

3.11 How should incentives be structured for thermal storage systems?

Response: A separate program should be implemented for thermal storage systems if deemed necessary by the NJBPU.

3.12 Under what circumstances, if any, should Distributed resources be able to opt in to Grid Supply Performance-based Incentives?

Response: Assuming Distributed resources are those that are behind-the-meter as defined in the Straw Proposal then, Distributed resources should not be able to opt into Grid Supply Performance-base Incentives.

3.13 Large projects and long duration projects have the potential to qualify for significant incentives. Should incentive caps be applied in this program? If so, how (for example, by customer, project, developer, duration or meter), or other method?

Response: We strongly support implementation of a First-Ready, First-Served incentive program with significant project maturity enhancements over the straw proposal. If only mature projects are allowed to reserve incentives, caps are not as critical. If only interconnection study progress and a small deposit is required, the program could be at risk of not meeting NJ's targets if projects subsequently fail to move forward. If the NJBPU does not increase project maturity requirements, we recommend total award reservation caps based on comparable project experience by the developer or developer team members, and careful contemplation of project size and or total award concentration with a single developer to avoid project or systematic failures that could imperil the success of the overall program.

3.14 Should a cap be set such that the sum of federal and state incentives does not exceed a certain amount? If so, please provide details.

Response: No comment at this time.

3.15 What provisions should be included in the program for monitoring, reporting and evaluation in order for deployed projects to maintain eligibility for incentives that are paid over time?

Response: The program should include annual reporting requirements for the resource to document its kWh energy storage capacity and other applicable metrics used as variables in the incentive payment calculation.

3.16 How can BPU structure NJ SIP Performance-based Incentives to both promote value stacking and prevent double compensation?

Response: TigerGenCo would note that while the correlation between marginal emissions and energy market price is not perfect, it is strong. However, we would also note that just because the contemplated incentive is paid out based on performance when market revenues may be higher, it is easy to overlook the risk and cost involved and efficiently operating and charging an energy storage project around peak pricing events. It is very possible that a project may have to procure high priced charging energy in order to be available to discharge when emissions may be reaching a forecasted peak (tight margins and risk of going upside-down on a trade). Therefore, what may look like double compensation (performance incentive payout + high energy market prices) may turn out to be critical support to incent and drive behavior.

4.0 Overburdened Community Incentives

The Straw proposed three methods to support OBCs with energy storage incentives.

- *An incentive adder in kWh*
- *A separate incentive block*
- *An additional up-front incentive*

4.1 Staff is considering establishing both an adder and a capacity block for OBCs. What size should the capacity blocks be over time as a percentage of the overall Distributed segment? How much should the adder be in 1) $/kWh or 2) as a percentage of the base incentive?

Response: No comment at this time.

4.2 How can BPU assure that the incentive structure chosen will in fact provide benefits to OBCs?

Response: No comment at this time.

5.0 Other Questions

5.1 What actions, if any, should BPU take to improve access to the energy storage value stack as part of implementing the NJ SIP?

Response: No comment at this time.

5.2 How will Federal Energy Regulatory Commission ("FERC") Order 2222 affect New Jersey's energy storage market? What changes should the Board make to the NJ SIP to take advantage of PJM's pending implementation of FERC Order 2222?

Response: The Board should support PJM's pending implementation of FERC Order 2222.

5.3 Are modifications to the NJ SIP needed to maximize the ability of energy storage developers to access federal investment tax credits or other federal incentives?

Response: At this time, we have not identified any needed modifications to the NJ SIP to maximize the ability of energy storage developers to access federal investment tax credits or other federal incentives.

5.4 What provisions, if any, should be established for interconnection of zero-export energy storage facilities (that is, energy storage facilities that do not inject power back into the grid and only supply power to on-site load)?

Response: The project summarized in item 5.4 above is a Distributed resource, as defined in the Straw Proposal. No additional provisions are foreseen to be required for these resources to establish an interconnection.

5.5 What specific best practices regarding rates and tariffs from other states should be incorporated?

Response: TigerGenCo recommends that the NJBPU adopt much higher incentive reservation fees. Security that NYSERDA requires for holding an LSR or OSW REC contract is a comparable example of the type of security that curbs speculative behavior.

5.6 Should energy storage be utilized and compensated in the Triennium 2 Energy Efficiency /Demand Response proceeding as an allowable Demand Response resource? If so, what changes, if any, should be made to the NJ SIP design to avoid potentially providing double compensation for the same service?

Response: No comment at this time.

5.7 How should energy storage systems be metered and measured? Can an inverter serve this function? What role should advanced metering infrastructure ("AMI") play in the NJ SIP?

Response: Grid Supply resources should be metered and measured as provided in the resource's specific interconnection agreement and related PJM requirements.

5.8 Please provide any other comments on the NJ SIP.

Response: No additional comments at this time.

We greatly appreciate the opportunity to participate in this Request for Information process and look forward to working with the Board and related stakeholders on these matters in the future.

Sincerely,

Matt Lydon

Matt Lydon
VP of Compliance