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Sherri Golden
New Jersey Board of Public Utilities
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P.O. Box 350
Trenton, NJ 08625-0350

Via email to:
board.secretary@bpu.nj.gov

Re: MSSIA Comments to Docket No. QO22080540
New Jersey Energy Storage Incentive Program Straw Proposal

Dear Secretary Golden:

The Mid-Atlantic Solar & Storage Industries Association (MSSIA) is pleased to present these comments in regard to the above-referenced request for comments.

MSSIA is a trade organization that has represented solar energy companies in New Jersey, Pennsylvania, and Delaware since 1997. During this 26-year period, the organization has spearheaded efforts in the Mid-Atlantic region to make solar energy a major contributor to the region's energy future. Its fundamental policy goals, in brief, have been to: (1) grow solar energy and storage in our states as quickly as practicable; (2) do so at the lowest possible cost to ratepayers, while delivering the greatest possible benefit as a public good; and (3) preserve diversity in the market, including opportunity for New Jersey companies to grow and create local jobs. MSSIA recently added a fourth goal to ensure equitable access to the benefits of solar and storage for overburdened communities, and for low and moderate income households (https://mssia.org/fundamental-policy-objectives/).

MSSIA's comments follow:

1. MSSIA appreciates the ambitious target of 1,500 MW of storage to be incentivized through the Storage Incentive Program (SIP) by mid 2030.

2. MSSIA believes that the proposed basis for measuring a SIP project's capacity is appropriate, but asks for clarification of its application to the fixed incentive.

MSSIA notes that in the Straw Proposal "Staff proposes measuring an NJ SIP project's capacity as the lesser of its nameplate capacity (in MW) or its energy storage capacity (in MWh) divided by 4 hours". However, that measure is in units of MW, while the proposed fixed incentives are in units of kWh. *MSSIA seeks clarification that the proposed fixed incentive levels are as stated in Table 3 on a $ per kWh basis for all eligible projects.*

3. MSSIA tentatively agrees with the proposed initial incentive rates, but proposes an additional tier.
MSSIA tentatively believes that the proposed initial total incentive rates for distributed solar, as the sum of the upfront incentive plus the present value of the performance incentives, are roughly appropriate, *assuming the current federal ITC rules*. However, MSSIA feels the need for more time to analyze and model these rates. It is important to note, however, that the new federal administration and Congress are expected to roll back climate-related programs, as well as ITC adders. Furthermore, the new administration is expected to levy additional tariffs that could affect storage technology and cause higher prices, less availability of equipment, and delay in completing projects. *MSSIA urges BPU to monitor the situation closely, and to be prepared to adjust if the need arises.*

MSSIA also appreciates the inclusion of adders for overburdened communities, and believes that the proposed incentive adder rates are roughly appropriate (based on the current climate).

MSSIA recommends adding a new tier for larger distributed solar projects sized 10 MW and above. MSSIA recommends a lower incentive rate for this larger tier, tentatively recommended to be $100 per KWH for the fixed incentive, plus $30 per KWH for the overburdened community adder.

MSSIA also recommends including a statement in the straw proposal regarding the standards BPU will use to determine eligibility for overburdened community status.

4. Program size, particularly for distributed storage, is a vital piece of information, but is not mentioned.
The straw proposal does not provide information on the program size for the first years of the program. It is very difficult to advise on several aspects of the program without knowing its size. *MSSIA fervently requests that the program sizes for the first three years, and the proposed split between grid supply and distributed solar, be expressed for the straw proposal so that MSSIA members can understand the full impact of the proposal, and be able to respond meaningfully.*

Assuming that the SIP is finalized and applications are accepted by mid-2025, there will be 5 years to achieve the 1,500 MW goal by mid 2030. That means the program size would need to be 300 MW per year, on average, in order to achieve the goal. Small allocations for the first two years would make it impractical to meet the goal in the required time frame.

MSSIA recommends that the program size for the first two years approach the average (300 MW per year) in order to send a strong signal to the investment and development communities to invest substantial resources, and to accelerate development in the state.

5. Distributed storage projects are usually the most economic type, and development is robust.
Distributed storage projects, thanks to FERC Order 2222 and related previous FERC orders, can earn revenue from the same sources that grid supply projects can earn from. They can also earn revenue from sources only available to behind-the-meter projects. Such behind-the-meter revenue sources include reduction of capacity and transmission charges, monthly demand charges, and more. In many if not most cases, those behind-the-meter revenue sources can be considerably higher than the front-of-the-meter sources. This means that under current conditions distributed storage projects will tend to be

fundamentally more cost effective than grid supply projects, and can therefore reduce the ratepayer costs of the storage incentive program over time.

Distributed, behind-the-meter storage will be sized according to the design capacity of the load to which it is connected. Therefore, the current carrying capacity at the site where it is connected will be adequate by design. It will be

Because of their participation in demand reduction programs for capacity and transmission, distributed storage projects will contribute substantially to increasing capacity and transmission supply for the whole state, thus helping to moderate capacity and transmission costs for everyone, not just the SIP participants.

Furthermore, the development of distributed storage projects is very active, in project sizes from less than 10 KWH to well over 100 MWH. A straw poll of MSSIA member companies indicated that substantially more members are developing behind-the-meter projects than grid supply projects. Distributed storage is ready to deliver at the speed and scale necessary to achieve the program goals.

MSSIA strongly recommends that distributed solar be given substantial emphasis in program size, program start date, and other aspects of the SIP.

Accordingly, MSSIA requests that the distributed storage program be launched in 2025, and that distributed storage be given the most emphasis in program size allocation.

6. Distributed storage systems uniquely can provide additional value by delivering resilient power to critical facilities.

Energy storage facilities behind the meter are capable of producing much more revenue than grid supply projects and lowering electric costs statewide by enhancing capacity and transmission supply as described above. But they are also capable of providing resilient power to facilities that are critical to public health and safety during power emergencies. Storage projects are highly capable of functioning as microgrids during power outages, and are especially effective when paired with solar power systems connected to the same site. Clean microgrids of this type can be deployed at virtually any size from under 10 KWH to well over 100 MWH. For instance, a project has reportedly been completed to power Saudi Arabia's Red Sea New City entirely by a solar+storage microgrid – full-time. The system consists of a 400 MW solar system and a 1.3 GWH battery system.

With a combination of federal tax credits, SIP incentives, behind-the-meter revenue sources, and PJM market revenue sources, clean energy microgrids will be able to provide resilient power to these critical facilities while providing them with net revenue to support their public functions. Such projects will also displace the use of new fossil fueled backup power facilities that are not desired, especially in overburdened and environmental justice communities.

With storage technology progressing, economic viability improving, and the need for resilient power expected to intensify due to global warming, the demand for such resilient power can be expected to grow and diversify. Traditional critical functions like hospitals, nursing and progressive care facilities, prisons, water and sewerage treatment infrastructure, emergency services, etc. are sure to be considered. In addition, neighborhood assets that are useful during power emergencies like supermarkets, gas stations, hotels, emergency shelters, etc. can be powered silently and cleanly. Eventually, in an electric vehicle-dominated future, distributed microgrids will be able provide resilient power to police and fire vehicles, ambulances, buses and taxis, garbage trucks, and other vehicles that are especially important during power outages.

MSSIA recommends that the SIP encourage the development of such clean energy, first by allocating adequate program capacity to distributed storage, and then also consider a small adder and/or a set-aside for clean microgrid projects.

7. The distributed performance incentives should reflect the actual value of the services that distributed storage projects deliver to the distribution system. All capable storage systems should be able to participate.
If performance-based incentives are designed to reward services delivered by storage systems according to the value of those services, then those performance incentives "pay for themselves". Some exceptional projects may be able to be developed with performance incentives alone. That being the case, the performance incentives should be available to any qualifying distributed storage project, regardless of whether the project gets an upfront fixed incentive or not. This is the case in pay-for-performance markets such as those operated by PJM.

If some of the storage capacity needed to achieve the SIP goals can be developed with the performance incentives alone, then the resulting capacity is delivered to the state at a much-reduced incentive cost (performance incentive alone vs. fixed incentive + performance incentive). To the extent storage capacity is developed in that manner, the ratepayer burden for incentives is reduced.

MSSIA recommends that the performance incentive be made available to any eligible and capable storage projects, regardless of whether they receive the fixed incentive.

8. The distributed performance-based incentives should be based on the most important services storage systems can deliver to the distribution system.
MSSIA agrees with staff that simplicity is greatly desirable in an incentive system. However, a distributed performance incentive system that closely follows the value delivered to the distribution system may be difficult to achieve with pre-established call hours. Further, there may be reason to consider measuring services delivered by storage systems rather than a fixed $/KW capacity payment per year.

The needs of the distribution system can benefit from storage in more ways than mitigating peak load. Many of the services storage systems can provide are already monetized in existing markets, mainly through PJM, and through customer billing. To deliver value to the distribution system, perhaps the most valuable role storage can play is voltage control, which can be delivered by volt-VAR control or volt-Watt control. These are both services that energy storage systems are very well-suited to provide. These services would be provided as needed, either through pre-programmed algorithms or signals from the EDCs. The timing and frequency with which they are needed or called upon by the EDCs will vary. The degree to which energy storage systems respond to an EDC signal to provide services can be measured.

MSSIA believes further work and collaboration is advisable on the topic of the detailed design of the distributed performance incentive. Coordination with the Grid Modernization Working Groups' work on similar topics and coordination with the EDCs are also advisable. However, MSSIA believes that appropriate program design and compensation rates can be developed quickly with this collaborative approach, so that the performance incentive system can launch in 2025.

MSSIA recommends that BPU convene stakeholder meetings among BPU, the EDCs, and the storage development community to develop the optimum design of the performance-based incentive system for the SIP.

9. There will be a need to coordinate actions driven by the SIP performance-based incentive program with actions driven by existing PJM programs.

There may be times when the needs of the distribution system and the needs of the transmission system conflict. For instance, if voltage control locally were to require one action at the same time that frequency regulation across the transmission system were to require the opposite action, the decision regarding which action to take should be driven by more than just which program pays more at that moment. There will be a need for coordination and prioritization between PJM's needs and the EDC's needs. Likely it will be necessary for rules to be developed regarding which system should take priority, under what conditions.

MSSIA recommends that BPU convene a stakeholder meeting among BPU, the EDCs, PJM, and the storage industry to begin consideration of how distribution system needs and transmission system needs for deploying storage system capabilities should be coordinated and prioritized.

10. Declining block incentive programs can make investment in project development very difficult and high-risk, making private capital more expensive.

Declining block incentive programs often end up discouraging development, especially when the blocks are small and therefore short-lived - subject to rapid (on project development timescales) and unpredictable drops in incentive rates. C&I and public storage projects can take years to develop and can require large amounts of expenditures of money and resources during development. They usually require entering into contracts in order to achieve development milestones needed in order to meet maturity requirements to apply for incentives. It is exceedingly difficult to make those expenditures, and especially to enter into contracts such as leases, shared savings agreements, etc., when developers can't know what the incentive rates will be by the time they're ready to apply.

Furthermore, the greater risk involved in deploying development capital when incentive rates are uncertain will require a higher cost of capital. As we have said often, "high risk is high cost".

Another property of declining block incentives is that , especially with small blocks driving rapid change, if the first block is designed to clear the minimum threshold IRR for investment and no more, then by definition the second block will be inadequate for investment, and then most investment will stop. Therefore, the agency designing the program must choose between a program virtually designed to fail after the first block, or a program that starts with an incentive that is higher than the minimum that will produce the desired results.

Incentive review and adjustment can still be made, but on a regular, pre-determined timeline with enough time between adjustments to develop projects. Such a predictable time period for adjustment can still meet the goals in the straw proposal, including the 5th bullet in the statement of program goals, *"Grow a sustainable energy storage industry that gradually requires decreased incentives to deploy additional storage resources and ensure that the benefits of energy storage last well beyond the term of this initial program*". It will do a better job at achieving the 2nd bullet, "*Promote deployment of low-cost private capital into New Jersey storage projects by establishing a stable market structure*"

MSSIA recommends that the program be structured, at least initially, based on the fixed incentive rate set for the first program year, with a review after each program year to determine whether incentive rates need to be altered – similar to the way the ADI program works.

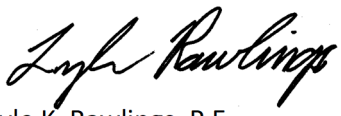
11. In the near term, the setting of incentive rates will need to be considered with attention to potential changes in federal incentives in the new administration in Washington.

Based on statements and promises of the President-elect, and based on information coming out of Washington currently, there is a strong potential for roll-back of incentives for storage contained in the IRA.

MSSIA recommends that BPU perform a review within a few months to assess whether there have been material changes to the federal incentives for storage (principally, the ITC), as well as other changes in the economic environment for storage, and alter the SIP incentive raes or structures if necessary to maintain the viability of the Program.

MSSIA thanks the Board for the opportunity to provide input on this matter.

Sincerely,



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