

December 18, 2024

*Submitted electronically*

Sherri L. Golden  
Secretary of the Board  
44 South Clinton Ave., 1st Floor  
PO Box 350  
Trenton, NJ 08625-0350

**Re: IN THE MATTER OF THE COMMUNITY SOLAR ENERGY PROGRAM (DOCKET NO. QO22080540)**

Dear Secretary Golden:

Vote Solar respectfully submits the following comments in response to the solicitation for stakeholder feedback issued by the Board of Public Utilities (“Board” or “BPU”) staff concerning Docket No. QO22080540 and issued November 7, 2024.

Respectfully submitted,

*/s/ Kartik Amarnath*

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## **Introduction**

Vote Solar is grateful to the New Jersey Board of Public Utilities (“Board” or “BPU”) and Board staff for the opportunity to provide comments regarding the New Jersey Energy Storage Incentive Program (“NJ SIP”) 2024 Straw Proposal. The BPU’s straw proposal comes at a crucial moment in the state’s clean energy trajectory, where meaningful action is needed for the state to meet its 2030 statutory storage target in time. Federally, we are entering a moment of unpredictability and potential market volatility in the clean energy landscape. In this transitional moment nationally, it will be important for the BPU to entrench its commitment to a clean energy future through a combination of responsiveness, flexibility, and a commitment to added support and emboldened action where appropriate.

Vote Solar is a national non-profit advocacy organization that supports state governments in establishing policies that advance an equitable clean energy future. We have engaged in a number of issues in front of the BPU including community solar, FERC Order No. 2222 compliance, grid modernization, the Energy Master Plan, and the state’s successful Solar for All application. Notably, Vote Solar also submitted joint comments with Advanced Energy United, New Jersey Solar Energy Coalition, and Solar Energy Industry Association in response to BPU’s RFI regarding the development of NJ SIP in September 2023.<sup>1</sup> In addition to Vote Solar’s comments below, we reiterate the prior recommendations we provided in our September 2023 joint response and encourage BPU staff to refer to those comments for further insights. We look forward to continuing to work with the BPU to advance the state’s clean energy goals through NJ SIP and other initiatives.

Below are our responses to questions 1 to 3 and 4 to 10 that BPU staff have requested responses to as part of the NJ SIP 2024 Straw Proposal.

## **Grid Supply**

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

Vote Solar encourages the Board to maintain an explicit commitment towards incentivizing avoided emissions through the NJ SIP. Depending on the manner of deployment, storage technologies can increase overall emissions, as is even projected to initially happen in New Jersey by Staff’s consultant. Therefore, it is important that avoided emissions remain a foundational component of any storage policy through specific mechanisms of incentivizing deployment. The challenge of not having available data suggests that the Board should defer the implementation of this incentive to a later date, and this does not need to further delay the introduction of the NJ SIP. However, concurrent to the NJ SIP’s inaugural year, the BPU should commit to a multistakeholder incentive design process that can establish an incentive for net avoided emissions in lieu of an existing day-ahead marginal emissions signal. Around the country, organizations have identified best practices to use emissions data to incentivize storage deployment in ways that ensure targeted pollution reductions, and the BPU can tap into this wealth of knowledge through an incentive co-design process with

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<sup>1</sup> See *Advanced Energy United, New Jersey Solar Energy Coalition, Solar Energy Industry Association, and Vote Solar Joint Comments*. (September 2023). Docket No. QO22080540 - In the Matter of the New Jersey Storage Incentive Program, New Jersey Board of Public Utilities.

stakeholders.<sup>2</sup> This process should be transparent and abide by a strict timeline to ensure its incorporation into the program after at most one year after the NJ SIP's introduction. The final design of this incentive should remain somewhat flexible, allowing for regular updates to the incentive based on the availability or further refinement of relevant data from PJM or another entity in future years. NJ SIP projects selected in the first year, before the incorporation of the avoided emissions incentive, could receive a bridge incentive based on locational marginal price (LMP) or locational marginal emissions (LME) value.<sup>3</sup>

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

During the initial stages of the NJ SIP - while the BPU must pursue an avoided emissions incentive co-design process - the program could provide a temporary bridge performance incentive based on locational marginal price (LMP) or locational marginal emissions (LME). These values will likely correlate to a degree with an eventual avoided emissions incentive structure, and therefore the transition from the bridge incentive to the more permanent avoided emissions incentive likely would not significantly alter project economics. Projects selected in the initial stages of the NJ SIP under the bridge incentive structure can elect to remain on this incentive for an additional period of time before being required to transition to the avoided emissions incentive.

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

In the inaugural year of the NJ SIP, during a time in which an established avoided emissions incentive may still be in the design process, the BPU should also develop a protocol for how the NJ SIP can facilitate peaker plant displacement. The NJ SIP should establish a carveout or incentive adder for projects whose deployment would replace or demonstrate reduced reliance on specific peaker plant facilities that are aging, costly to operate, are significant sources of pollution, and in close proximity to overburdened communities. This is discussed further in the response to question 5 of this solicitation.

*5. Should Grid Supply energy storage projects that replace or demonstrably reduce the runtime 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.*

Grid Supply storage projects that replace or demonstrably reduce runtime of target polluting peaker plants should receive preference and added incentives in the NJ SIP. Peak demand in New Jersey is met in large part

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<sup>2</sup> *Using New Marginal Emissions Data to Improve State Renewable Portfolio Standards - Center on Global Energy Policy at Columbia University SIPA | CGEP.* (2024, May 30). Center on Global Energy Policy at Columbia University SIPA | CGEP.  
<https://www.energypolicy.columbia.edu/publications/using-new-marginal-emissions-data-to-improve-state-renewable-portfolio-standards/>

<sup>3</sup> *Locational Marginal Emissions (LME).* (2024, October 24). RESurety.  
<https://resurety.com/solutions/locational-marginal-emissions/>

by polluting facilities, one quarter of which burn oil and three quarters of which are over three decades old.<sup>4</sup> Several oil-burning facilities are almost or over half a century old. These are some of the most polluting facilities in the state and many are sited in overburdened communities, resulting in significant health and environmental harm to vulnerable populations.<sup>5</sup>

Vote Solar recommends the BPU establish a peaker plant displacement strategy within the NJ SIP that grants preferential selection and allocates enhanced incentives to projects that offset peaker plant usage. This displacement strategy should first establish a hierarchy of peaker plants targeted for replacement based on their age, fuel source, and proximity to overburdened communities. Grid Supply applicants to the NJ SIP would then be given selection preference based on demonstrable offsets to peaker plant use among high priority targeted facilities. Selection criteria that align with these preferences should be developed in consultation with environmental justice stakeholders, as well as through a Request For Information (RFI) process that solicits input from clean energy stakeholders who specialize in peaker plant replacement. Selected projects would then receive some form of a peaker replacement adder, which can be developed through the same stakeholder process as the one for emissions avoidance incentive discussed in response to question 1. A peaker replacement adder could be co-designed in tandem with an avoided emissions incentive, but should remain separate. The inclusion of this adder would demonstrate New Jersey's commitment to environmental justice, not solely throughout the selection process of the NJ SIP but also in facilitating the nascent storage market and the types of projects that are developed in pursuit of the state's 2030 storage target.

In the event that data availability poses an impediment to understanding the demonstrated localized offsets to peaker plant use at the wholesale level, thus making preferential selection across applicants difficult, the BPU should establish a distinct initiative within the Grid Supply incentive program that employs a facility-specific and project-based strategy for each peaking facility prioritized for replacement. There is precedent for this approach.<sup>6</sup> Organizations such as Clean Energy Group and PSE Healthy Energy have publicly available best practices for facility-specific peaker plant replacement with energy storage, including state-specific approaches for New Jersey.<sup>7,8,9</sup> In New York, the PEAK Coalition has worked directly with the New York Power Authority on peaker plant replacement strategies to prevent the repowering of over a gigawatt of polluting peaker capacity in environmental justice communities, replacing this capacity with targeted clean

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<sup>4</sup> *PSE Healthy Energy - Replacing Peaker Plants with Energy Storage in New Jersey*. (2024, October 9).

PSE Healthy Energy.

<https://www.psehealthyenergy.org/work/opportunities-for-replacing-peaker-plants-with-energy-storage-in-new-jersey/>

<sup>5</sup> *New Jersey Peaker Power Plants Energy Storage Replacement Opportunities*. (May 2020).

<https://www.psehealthyenergy.org/wp-content/uploads/2019/12/New-Jersey.pdf>

<sup>6</sup> Tarekegne, B., Powell, D., Oikonomou, K., Jacroux, E., & O'Neil, R. (2022). Analysis of Energy Justice and Equity Impacts from Replacing Peaker Plants with Energy Storage. *2022 IEEE Electrical Energy Storage Application and Technologies Conference (EESAT)*. <https://doi.org/10.1109/eesat55007.2022.9998034>

<sup>7</sup> *PSE Healthy Energy - Replacing Peaker Plants with Energy Storage in New Jersey*. (2024, October 9).

PSE Healthy Energy.

<https://www.psehealthyenergy.org/work/opportunities-for-replacing-peaker-plants-with-energy-storage-in-new-jersey/>

<sup>8</sup> *Energy Storage Program Design for Peak Demand Reduction*. (2024, December 18). Clean Energy Group.

<https://www.cleanegroup.org/publication/energy-storage-program-design-for-peak-demand-reduction/>

<sup>9</sup> *Phase Out Peakers*. (2024, November 12). Clean Energy Group.

<https://www.cleanegroup.org/initiatives/phase-out-peakers/>

energy strategies including storage deployment.<sup>10</sup> A coordinated New Jersey peaker plant replacement initiative and its corresponding selection processes and incentive allocations can be developed through the same standalone stakeholder process discussed in response to question 1 that would establish a co-designed avoided emissions incentive during the inaugural year of NJ SIP.

### **Distributed**

*6. The distributed incentive level breakdown provides varying incentive levels for different sized energy storage systems to account for cost differences. Are the proposed incentive levels appropriate?*

We believe that based on the logic provided by Board staff's consultants through their gap analysis, the incentive levels may be appropriate for the time being, but more weight should be given to the perspectives of storage developers. Further clarity is also needed in terms of program size and yearly targets for each market segment, which can help refine stakeholder recommendations on corresponding incentive levels.

We urge the Board to maintain flexibility with incentives during a time of market volatility due to the shifting federal energy policy landscape. We recommend the BPU proactively identify additional sources of funding should further incentives be needed to make up for lost federal support, and in the near-term convene a NJ SIP checkup and incentive review process at least biannually (Q2 and Q4 of 2025, Q2 and Q4 of 2026, etc). These stakeholder engagements would be conducted to make sure incentive levels remain optimal for storage market expansion, serving overburdened populations, and meeting the state's statutory storage targets given New Jersey is already well behind schedule.

*7. Are the incentive adders for OBCs too high, too low, or should the proposed OBC incentive otherwise be modified?*

On principle, we believe the OBC incentive adders should function to ensure that the percent of NJ SIP projects serving overburdened communities is proportional to percent of the state's population that is overburdened. Out of a total state population of just over 9 million, according to the NJ Department of Environmental Protection over 5 million people live in overburdened communities.<sup>11</sup> Given the nascency of New Jersey's storage market, and that not all households located within an OBC are overburdened, we suggest a target of 40% of NJ SIP projects to serve OBC households.

At a time of unpredictable market volatility incentive adders for OBCs must be monitored closely to ensure they are doing their job. We strongly recommend OBC incentive adders be reviewed biannually as part of a broader NJ SIP checkup stakeholder process, in line with what is discussed in response to question 6. We also believe any incentives related to avoided emissions and peaker plant replacement should be distinct from the OBC adder, ensuring that the latter is focused on directly serving OBCs and optimizing co-benefits.

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<sup>10</sup> PEAK Coalition. <https://www.peakcoalition.org/>

<sup>11</sup> NJDEP | Environmental Justice | What are Overburdened Communities (OBC)? Environmental Justice. <https://dep.nj.gov/ej/communities/>

Finally, we recommend the Board find opportunities for low-income and disadvantaged households that don't physically reside within an OBC census block to also still have access to OBC project benefits. Disadvantaged households are not always defined by geography.

*8. How far along are the EDCs in implementing the technology needed to issue calls for the performance incentive portion of the NJ SIP? Will this affect the design of the performance incentive?*

It is up to the BPU to demand transparency and accountability from these companies, and the fact that the institution responsible for regulating EDCs is not aware of their status in implementing mechanisms for distributed NJ SIP projects is deeply worrying. EDCs must align their actions around storage market development and facilitation with the statutory requirements of the state of New Jersey. We are concerned by the BPU's suggestion to delay the distributed storage incentive program to 2026 specifically to give EDCs the time to develop mechanisms without knowing the status of their progress. This timeline demands a rethink with more robust transparency measures and strictly binding deadlines for EDCs to report and complete their progress for a timely NJ SIP launch for distributed projects.

In many cases, behind-the-meter projects can be more cost effective than front-of-the-meter projects given the former's ability to capture revenue from reduced capacity and transmission costs at the distribution level. This market favorability means that an earlier launch of the distributed storage program can help New Jersey meet its storage target in a more timely manner when the state is already behind meeting the target in statute. We recommend the BPU put in place a detailed timeline of milestones that EDCs are to achieve to ensure a timely launch of the NJ SIP distributed program in 2025. Certain provisions and bridge programs can be incorporated during the early stages of NJ SIP to ensure the distributed incentive program launch while accommodating any final and necessary EDC refinements.

*9. Should the Board require EDCs to implement a designated distributed energy resources management system (DERMS) to effectively manage and dispatch resources across their systems?*

Yes, the Board should require EDCs to implement DERMS, but importantly the BPU must be in a position to provide technical assistance to EDCs and implement robust accountability and transparency measures to ensure timely implementation. It would be a benefit to all if EDCs use DERMS, and Vote Solar supports a requirement so long as it prioritizes the establishment of DERMS across EDCs in a way that is streamlined, consistent, and effective. Given the deeply concerning lack of clarity around EDC progress and preparedness related to distributed storage projects, potentially pushing back the timeline for New Jersey to meet its own statutory storage targets, a DERMS requirement must be partnered with a proactive and supportive BPU that can steward EDC DERMS development.

## **Other**

*10. Do any aspects of this program need to be modified to address NJ Legislature Bills S225/A4893, should the bill be signed into law?*

Since this bill has not passed yet and there is the potential for further language changes during the upcoming legislative session, Vote Solar is unable to weigh in at this time on whether any program modifications would be needed to comply with it. However, we support the BPU in tracking the bill's progress and ensuring that the spirit of the bill, as written now, is met through the Storage Incentive Program's design. This first and foremost means holding EDCs accountable in transparently progressing on their 'call upon' capabilities for distributed storage projects, and aiming for an expedited timeline (180 days, as specified in the bill) for launch of the distributed incentive program of the NJ SIP.<sup>12</sup> Secondly, the NJ SIP should establish an incentive structure for front-of-the-meter market segments that are not large enough to meaningfully participate in PJM markets. Finally, aligning with the spirit of the bill, the NJ SIP should be integrated with other BPU flagship programs and proceedings related to grid modernization and community solar. This would affirm community solar projects are eligible for appropriate incentives and efforts are made to facilitate community solar-plus-storage with meaningful benefits distributed back to subscribers.

### **Conclusion**

Vote Solar is grateful for the opportunity to comment on this important and timely straw proposal. We are happy to work with the Board and staff on making this program a national leader in the clean energy landscape, particularly around offsetting reliance on polluting peaker plants. Additionally, we strongly recommend Board staff continue to engage diverse stakeholders in the OBC and environmental justice landscape whose constituents and communities are most impacted by this program and the trajectory of the state's clean energy future. Their input is paramount to ensure New Jersey's clean energy transition is a just and equitable one.

Thank you for your time and consideration.

Sincerely,

*/s/ Kartik Amarnath*

Kartik Amarnath

Mid-Atlantic Regulatory Director

Vote Solar

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<sup>12</sup> See *SENATE ENVIRONMENT AND ENERGY COMMITTEE STATEMENT TO SENATE, No. 225* (2024, February 5). STATE OF NEW JERSEY. [https://pub.njleg.state.nj.us/Bills/2024/S0500/225\\_S1.PDF](https://pub.njleg.state.nj.us/Bills/2024/S0500/225_S1.PDF)