EMPOWER NJ
NO FOSSIL FUEL PROJECTS

December 18, 2024

Sherri Golden
New Jersey Board of Public Utilities
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P.O. Box 350
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Via email to:
board.secretary@bpu.nj.gov

Re: EmpowerNJ Comments to Docket No. QO22080540
New Jersey Energy Storage Incentive (SIP) Program Straw Proposal

Dear Secretary Golden:

EmpowerNJ is pleased to present these comments in regard to the above-referenced request for comments.

EmpowerNJ is a coalition of over 110 environmental, civic, faith-based and other community based organizations focused on stopping new fossil fuel projects and promoting policies and projects in all sectors to ensure that New Jersey transitions to truly clean zero emissions energy solutions as rapidly and as justly as possible to help avoid the worst impacts of climate change and associated co-pollutants. We strongly support policies that incent the use of storage as part of clean, zero-emissions energy solutions.

The target for total storage volume (SIP plus CSI (Competitive Solar Incentive program)) should be set by first determining a viable path (costs and technologies) to achieve NJ's goals of a GHG reduction target of 50 percent below 2006 levels by 2030 and 100% clean energy by 2035. Given the high levels of renewable energy expected to come online in New Jersey this decade and the long term needed to develop projects of all sizes, particularly large transmission scale projects, it is imperative that NJ initiate the right sized storage program now – delays will be fatal as it will be virtually impossible to speed up development in later years. (The fact that the BPU Staff had to "*interpret the CEA's 2030 storage mandate as requiring New Jersey to procure 2,000 MW of storage systems capable of four hours of continuous discharge, or 8,000 MWh,*" implies this overall path is not the basis for this target). Both goals will require significant amounts of storage and it is not clear that the energy storage goal of 2,000 MW by 2030 is sufficient to meet these objectives. (The SIP projected GHG reductions of 100,000 metric tons per year must be viewed in light of the overall electric energy sector emissions of about 19 million metric tons per year. This equates to only 0.5% of the total sector emissions). Based on our conversations with storage experts, we recommend an initial target of at least 4,000 MW (16,0000 MWh) while considering

expansion to 6,000 MW as demand for electricity continues to grow. We also recommend focusing more on large transmission projects as the source of the largest GHG and co-pollution reductions.

Presenting a detailed path toward the 2030 and 2035 targets will also demonstrate the volumes and roles of grid storage vs. distributed storage and provide guidance as to the relative importance and size of incentives appropriate for each type of storage.

It is understood that as energy technologies and cost efficiencies evolve over time, it is reasonable to expect that these paths, storage targets and incentives will change. However, the initial storage target must be based on a viable path towards these key objectives. Annual changes to the storage target must also demonstrate that they are on the path towards these key objectives. EmpowerNJ understands that financial incentive programs are based on assumptions and that BPU may find it prudent to only apply them to a portion of the total storage needed to meet the 2030 and 2035 targets. However, BPU must demonstrate that SIP and other storage plans will meet these targets.

As part of this determination of a viable path toward the 50% reduction in GHGs and 100% renewable energy, the use of fuels such as RNG and other biomass or biofuels must not be considered non-GHG generating simply because they do not use carbon based fuels derived from drilling. When burned, these fuels emit GHG volumes similar to those from fracked methane and since the goal is to decrease GHG emissions, their emissions must be included in any GHG accounting scheme.

EmpowerNJ strongly supports the SIP goal of:

> *Encourage storage deployment that accelerates the clean energy transition, including facilitating deployment of renewable energy, electric vehicle or other DERs, and resiliency.*

Storage is essential in order to maintain the reliability of both the grid and local supply when retiring thermal facilities as well as to obtain maximum benefits from intermittent sources of truly clean energy such as solar and wind and to demonstrate their cost effectiveness versus “false climate solutions” such as RNG, hydrogen and “Low-carbon” fuels. These fuels are neither cost effective nor effective at reducing GHG and co-pollutants nor are they needed to provide reliability during a transition from thermal facilities to clean energy zero-emissions sources. EmpowerNJ encourages BPU to keep such comparisons in mind when setting incentives for storage and designing the solutions to reach the 2030 and 2035 targets. Once “false solutions” such as RNG and biofuels are implemented it will be very difficult to displace them with true zero-emissions solutions (storage plus solar/wind/hydro).

EmpowerNJ strongly supports the development of enhanced incentives for projects within or near overburdened communities in order to rapidly reduce co-pollutant emissions in those areas most affected. Given the health care issues incurred by those

communities we recommend developing a carve-out for procurement to replace peakers if this is required in order to accelerate deployment of battery storage for those facilities. Whether through the use of a carve-out or not, we recommend that the enhanced incentives for these projects be set at a level sufficient to eliminate all use of fossil fuel peaker plants in those communities in as short a time-frame as possible. In addition, priority should be placed on maximizing reductions in the normal use of the oldest fossil fuel generating units, which are often in the same communities.

Overall, the storage incentives should place a high priority on eliminating all use of fossil fuel peaker plants in the State.

Hydrogen storage technologies (green or otherwise) should not be included in this program as hydrogen is a strong indirect GHG with a GWP of 100 over 10 years.[1]

EmpowerNJ is not opposed to the BPU plan of only supporting privately owned and operated energy storage systems with NJ SIP. BPU must regulate these private entities as it does utilities, to require them to provide energy and other necessary services when needed for public health and welfare, regardless of profitability.

If the PJM interconnection process becomes a clear obstacle to achieving the storage target and it does not appear to be fixable in a reasonable amount of time, EmpowerNJ would support NJ creating its own interconnection process such as enabling utilities to accept, process, and approve applications for interconnection to electric public utilities' electric distribution or transmission systems.

EmpowerNJ supports the approach of reducing storage incentives over time in response to market participation for distributed storage projects as the costs of storage are expected to continue to decline and should become increasingly profitable.[2, 3]

EmpowerNJ supports the MSSIA (Mid-Atlantic Solar & Storage Industries Association) recommendation that distributed solar be given substantial emphasis in program size, program start date, and other aspects of the SIP as distributed storage projects will contribute substantially to increasing capacity and transmission supply for the whole

[1] https://www.energypolicy.columbia.edu/publications/hydrogen-leakage-potential-risk-hydrogen-economy/

[2] Lithium-ion batteries have seen an 85% reduction in production costs over the past decade. Journal of Energy Storage, "Historical and prospective lithium-ion battery cost trajectories from a bottom-up production modeling perspective," January 2024, https://www.sciencedirect.com/science/article/pii/S2352152X23031985#:~:text=Lithium%2Dion%20batteries%20(LiBs),costs%20over%20the%20past%20decade.

[3] The total installed cost of a Li-ion battery could fall by an additional 54-61% by 2030 in stationary applications. International Renewable Energy Agency (IRENA) report, ELECTRICITY STORAGE AND RENEWABLES: COSTS AND MARKETS TO 2030, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA_Electricity_Storage_Costs_2017.pdf

state, thus helping to moderate capacity and transmission costs for everyone, not just the SIP participants. Distributed storage systems can also provide additional value by delivering resilient power to critical facilities. Towards that end EmpowerNJ recommends adding additional credits for implementation of storage-based microgrids that are upgraded from diesel or gas based microgrids. Similarly, we recommend that incentives be eliminated for any new storage-based microgrids that include diesel or gas generation.

While distributed solar has many positive attributes as described in the MSSIA comments, it is also extremely important that the SIP effectively support large grid scale storage projects. EmpowerNJ has noted that beginning in early March [2024], for some portion of almost every day, a combination of solar, wind, geothermal, and hydropower has been producing **more than a hundred percent** of California's demand for electricity.[4] This is due to many factors, one of which is the development of large grid scale storage projects such as PG&E's Moss Landing 730 MWh facility.[5] Therefore, we support the comments from providers of grid scale projects in order to ensure that NJ has a process to facilitate development of large grid projects as needed to meet its GHG and clean energy targets. As written, the SIP grid supply proposal lacks program elements needed for transmission-scale developers to meaningfully participate. Specifically, we support the following improvements:

- Launch the first grid supply procurements in early 2025 to support the long timeframes required to bring large-scale projects online by the late 2020's.
- Provide long term commitments of at least 10 to 15 years by revising the payment structure from a one-time upfront payment to a commitment for fixed payments over time enabling providers to unlock lower financing costs leading to more cost-effective bids. Construction and supply chain unknowns and costs are making it a challenge to ensure profitability. The SIP needs to recognize providers' capital requirements by providing long term guarantees to protect providers from these uncertainties. NJ's recent experience with its OSW procurement is a good example of the havoc this can cause.
- 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. Given the high levels of renewable energy expected to come online in New Jersey this decade and the long timeframe needed to develop transmission scale projects, it is imperative that NJ initiate the right sized storage program now – delays will be fatal. 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.

[4] https://www.newyorker.com/news/daily-comment/california-is-showing-how-a-big-state-can-power-itself-without-fossil-fuels?utm_source=substack&utm_medium=email
[5] https://www.teslarati.com/tesla-moss-landing-megapack-battery-latest-updates-incidents/

- Set commercial operations dates that meet the realities of development cycles of at least 2 to 3 years from the receipt of state support.
- Specify the source(s) of funding for contracts to ensure confidence in long term funding.
- The current SIP limits incentives in overburdened areas to distribution connected projects and does not include transmission level projects. Transmission projects of 100 MW and larger are the key to the greatest reductions in GHGs and co-pollutants, which are critical for those communities. We recommend that the SIP review this policy with the priority of rapidly reducing co-pollutants in those areas.
- Implement a multi-year review process, which will enable changes to multi-year incentives if needed.

The recent delays in developing Off Shore Wind (OSW) reinforce the need for large amounts of storage. While storage cannot replace OSW as an energy generator it can act as an additional energy source to replace the loss of OSW for selected periods of time. This further highlights the importance, as noted above, for BPU to demonstrate that it has designed its SIP to meet the storage volume that will be needed to achieve the State's 2030 and 2035 GHG and clean energy targets.

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

Sincerely,
The EmpowerNJ Steering Committee:

Tracy Carluccio, Delaware Riverkeeper Network
Molly Cleary, Clean Water Action
Ken Dolsky, Don't Gas the Meadowlands Coalition
Doug O'Malley, Environment NJ
David Pringle, Principal, David Pringle Associates LLC
John Reichman, Blue Wave NJ
Matt Smith, Food & Water Watch