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December 12, 2022

**Secretary of the Board**  
New Jersey Board of Public Utilities  
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Trenton, NJ 08625

Via email to:  
[Board.Secretary@bpu.nj.gov](mailto:Board.Secretary@bpu.nj.gov)

**Re: Docket No. QO22080540  
IN THE MATTER OF THE NEW JERSEY ENERGY STORAGE INCENTIVE  
PROGRAM**

Dear Acting Secretary Diaz:

The Passaic Valley Sewerage Commission (PVSC) is pleased to present these comments in regard to the above-referenced request for comments.

### **DESCRIPTION OF PVSC**

PVSC is a New Jersey state agency that owns and operates the largest sewage treatment facility in New Jersey (which is also the fourth-largest in the country). Based in Newark, NJ, PVSC serves 48 municipalities in Northeastern Jersey with sewage treatment. PVSC also handles stormwater runoff, serves several municipal water treatment facilities in the area, and provides many other environmental services. It is also one of the largest electric energy user in the state.

### **PVSC'S MICROGRID PROJECT**

During Hurricane Sandy, PVSC lost power, and power was not fully restored for two weeks. The plant also experienced flooding, knocking out emergency generators and other equipment. In fact, without grid or backup power, even undamaged equipment could not function, making it impossible to treat the incoming sewage for a substantial period of time. As a result, over a billion gallons of raw or partially treated sewage was released into the Passaic River and Newark Bay. In response, and with support from FEMA, PVSC plans to build a large, multi-source microgrid, along with other measures designed to make the plant more resilient during future adverse events. PVSC is determined to ensure that what happened as a result of Hurricane Sandy will never happen again.

A challenge for PVSC is that it is situated in an overburdened community with a strong desire to minimize fossil fuel emissions. This is a desire that PVSC shares, along with its primary mission to protect the area from pollution of its water resources. PVSC is currently evaluating responses to an RFP aimed at providing clean, renewable energy to power its microgrid to the greatest

degree possible, in tandem with the gas-fired turbine power plant project that is further along in the procurement process.

Several of the responses to the renewable energy RFP incorporate large-scale energy storage and large-scale solar development on PVSC's site. Some responses also anticipate clean fuel for the turbines including renewable natural gas, green methanol, and green hydrogen.

PVSC hopes to negotiate and implement a solution that maximizes the storage capacity of the system. This will allow more of the solar or other renewable sources to be stored and then released during a power outage.

PVSC anticipates including a storage system with *power* capacity of 34 MW or more to support its power needs, but PVSC also want to maximize the *energy* capacity – in other words, the hours of storage at its rated power capacity. The more hours of storage PVSC has, the more resilient its operation will be. But it will also enable PVSC to further minimize any use of fossil fuels during a power outage, helping to answer the concerns of the local environmental justice groups. **An incentive from BPU would help us advance these important goals.**

## **DISCUSSION AND RECOMMENDATIONS**

The solar and, especially, the storage parts of PVSC's microgrid project will be used to help stabilize the local distribution system operated by PSE&G as well as the transmission system operated by PJM, and earn revenue doing so. Such grid stabilization services would include frequency regulation and grid demand response services through PJM, the regional ISO. The Notice for this Docket indicates that New Jersey BPU is requiring electric distribution companies in the state to develop revenue-producing programs for storage assets in the state for their services in helping to stabilize the local distribution system. PVSC and its team of experts will be instrumental in helping the BPU to develop those programs, and the microgrid will provide the distribution support services as part of the implementation of the programs.

Since PVSC is using the market revenue-generating capability of batteries connected to its microgrid to help support its cost, it is important to us that the storage incentive program not run counter to those use cases. Those market signals, primarily through PJM, are designed to meet the needs of the electric grid in maintaining stability and reliability. A good example is the demand response (DR) markets. The DR market is one of the best sources of potential revenue for PVSC's microgrid, but it also is aimed and the peak periods of need for the year, the times of maximum stress on the system. As noted in the Notice on this Docket, these will also be the time of highest carbon intensity. **It would be logical to take advantage of this alignment, helping achieve the carbon goals of the program as well as serving the grid modernization goals of stability in an intermittent renewable-driven grid, and enhancing the cost-effectiveness of the projects supported by the program.**

### **RECOMMENDATION 1:**

**We suggest that BPU consider using market signals from PJM as well as utility-based programs as a proxy for performance for the purpose of determining the performance-based incentive.**

We are aware that many other public entities are planning or considering microgrids that similarly serve vital functions that protect the welfare, health, and safety of New Jersey citizens, and/or protect the environment. This includes other sewage treatment facilities as well as other

types of critical facilities. These projects will also help important New Jersey institutions like ours defray costs and generate revenue, recycling incentive funds created by BPU back to the public. Many such projects, like ours, will be located in overburdened communities. The projects will benefit those overburdened communities with greater resiliency in maintaining vital services; a more stable local distribution system; cleaner air; and workforce development, among other benefits. **Considering the resiliency and economic benefits of such projects, I expect that projects currently being planned or considered by leading public entities will encourage still other critical facilities to follow their lead, creating a great deal of demand for the distributed portion of the BPU's storage incentive program.**

**We are concerned that the straw proposal does not provide enough incentive program capacity even for our single project, let alone the many vital resiliency projects that are likely to be needed around the state.**

#### **RECOMMENDATION 2:**

**We suggest that BPU consider greatly increasing the overall capacity of the program in the first few years. We further suggest that BPU make the great majority of the capacity available to distributed storage projects, so that more vital projects such as PVSC's microgrid project will be supported and provide critical services to New Jersey communities.**

PVSC hopes to continue working with local partners in our service region to create further opportunities in overburdened communities - to enhance their power resiliency, improve energy efficiency, utilize renewable energy resources, reduce fossil fuel emissions, and otherwise protect the environment.

In PVSC's work planning our microgrid, we have been working hand-in-hand with PSE&G to help move this very complex project forward. In addition, in our hopes of creating more opportunities in our service region as discussed above, we anticipate the potential to work with PSE&G as one of the local partners who can help drive the process. PSE&G has the position, the capabilities, the resources, and the experience help develop and execute on ambitious plans in communities we serve.

The state's intention, in law and in the Energy Master Plan, to transform the state to a renewable energy-based economy, present enormous challenges and complications. PVSC appreciates these challenges from a ground-level perspective born of taking on large infrastructure projects successfully. WE know that in order to achieve these vital goals in a cost-efficient, safe, and reliable manner, it will be necessary to avail ourselves of the most capable and experienced entities that exist in the state. PSE&G's specific experience in storage will be an important element in advancing the region's move toward sustainability and resiliency.

Furthermore, in the renewable-connected grid of the near future utilities will, of necessity, be in a position of primary responsibility for keeping the distribution system stable and reliable. Furthermore, there may be moments in time when conflicts that arise between the needs of the distribution system (utility responsibility) and the needs of the transmission system (PJM responsibility), requiring real-time coordination between utilities and PJM.

These challenges will require that utilities coordinate, monitor, and control storage, along with renewable generation, to respond to the greater intermittency of power supply into the

distribution system. In order to fulfill these responsibilities well, it is important that utilities gain experience with the operation and control of distributed storage resources in response to the real-time needs of the distribution system.

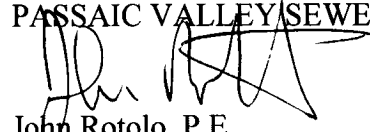
**RECOMMENDATION 3:**

**We suggest that BPU allow utility ownership in developing energy storage resources, and that utilities be encouraged to play a role in the use of storage resources to enhance the stability and reliability of the distribution system.**

PVSC thanks BPU and staff for the opportunity to comment on this matter.

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSION



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