Intelligent Generation

December 18, 2024

Sherri L. Golden, Secretary of the Board
State of New Jersey Board of Public Utilities
44 South Clinton Ave, 1st Floor
PO Box 305
Trenton NJ 08625

RE: Docket No. QO22080540; In the Matter of the New Jersey Energy Storage Incentive Program

Dear Secretary Golden,

Intelligent Generation (IG) is pleased to provide these comments in response to the 2024 Straw Proposal on the New Jersey Energy Storage Incentive Program (NJ SIP). Our focus will be on questions 6 and 9 posed for the Distributed portion of the program. We also provide some general comments and suggestions.

Responses to questions pertaining to Distributed Energy Storage

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 the proposed incentive is appropriate but requires slight modifcations to the segment sizings. In IG's ten years of experience providing value stack services for energy storage projects, we have noted that the price demarcation between residential, small commercial and large commercial (which pertains to small, medium and large in the straw proposal at page 11) occurs at 100 kW and one MW.

The major domestic ESS producers like Tesla start their standard product offering at one MW, so that is where the true economies of scale begin and thus systems >1 MW warrant the $150/kWh incentive. Anything under 100 kW will usally requires stacking of residential modules that are in increments of 10-15 kWh so the $300/kWh incentive is appropriate here. ($300/kWh is the incentive Illinois provides residential systems under the Climate and Equitable Jobs Act – CEJA). The range between 100 kW and one MW did not have many suppliers as of a few years ago, but new entrants are coming to this space and thus the $200/kWh incentive seems appropriate here.

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?*

In IG's perspective, implementation of DERMS by New Jersey EDCs is both time consuming and unnecessary to successful implementaiton of a distributed energy storage program that helps the grid during peak times. A far better approach is for an EDC to send one alert or dispatch signal to energy storage aggregators or curtailment service providers (CSP) and empower them to dispatch the fleet of batteries under their management. This approach has been employed successfully by PJM for the last 10 years in addressing the fast response frequency regulation market. PJM sends the same dispatch signal to each CSP controlling a fleet of energy storage assets in one dispatch group. The CSP then allocates the signal among the units in its fleet and aggregates the response to report back to PJM. This same approach could accomplish New Jersey's goals. Put

another way, EDCs do not need to implement DERMS for distributed energy storage control because aggregators and CSPs are already doing the same thing.

Other Considerations for SIP Design

a) Presently the PJM interconnection queue for utility-sided batteries – Grid Supply Resources – is at least three years. Distributed resources, which need interconnection approval only from the EDC, can achieve commercial operation much faster. Vital to the success of the SIP will be allocating a significant protion of the incentive budget to distributed resources, particularly those addressing the commercial and industrial sectors.

b) Related to EDC interconnection, the Board should make sure that utilities have a rapid approval process in place for distributed projects, with explicit timelines and time limits in place if not already. Two ancillary aspects to this would be availability of and easy access to both interconnection hosting maps and customer interval load data (8,760 hours).

c) Declining incentive amounts in succeeding blocks tend to discourage investment because of financial uncertainty, particularly when a current round is oversubscribed with applicants. Even if it is true that the marginal value of energy storage in a later block is less than it is for an earlier block, the cost of a 2026 project versus a 2027 project is likely to be about the same.

d) EDC demand charges play a significant role in energy storage economics because charging of the battery will appear as incremental load on the utility meter. For example, if an EDC has a $10/peak kilowatt demand charge, and the assessment period is 24/7 every day of the month, then it will not be possible to charge the battery economically any time during the month as the charging will increase the billed load. The Board should ensure that there are adequate timeframes within each day to charge the batteries economically. Exempting a battery from demand charge assessment during night hours, when emissions are typically lower, would have the further benefit of reducing GHG emissions.

e) Consistent with FERC Order 2222, the Board should allow any energy storage systems participating in grid services for the EDC to also participate in PJM wholesale markets like frequency regulation and spinning reserve. Furthermore, the Board should seek to maximize the injection potential of a battery for retail/EDC services related to peak reduction and allow a distributed battery to inject into the grid under net metering tariffs to receive the credit for the energy and capacity supplied.

Thank you for the opportunity to comment on the 2024 straw proposal. We would be delighted to provide additional information related to any of our comments.

Sincerely,

David J. Braun

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Vice-President, Sales and Marketing
Intelligent Generation