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July 19, 2022

Carmen D. Diaz
Acting Secretary of the Board
44 South Clinton Avenue, 1st Floor
Trenton, NJ 08625-0350

RE: Docket No. QO21010085 – In The Matter Of New Jersey Grid Modernization / Interconnection Process

Dear Acting Secretary Diaz,

Thank you for the opportunity to submit comments in response to the Guidehouse report and recommendations on grid modernization. As a community solar and dual-use developer active in New Jersey, we see this proceeding as a critical inflection point for the deployment of distributed generation across the state. Interconnection delays, costs, and uncertainties remain the primary barrier to installing projects that stand to benefit all New Jerseyans and further our progress towards the goals laid out in the Energy Master Plan. We are grateful that the Board has prioritized this proceeding and provided the opportunity for stakeholder engagement throughout the development of this study and report.

BlueWave's vision is to protect our planet by transforming access to renewable energy. As a pioneering solar developer based in Boston, Massachusetts, BlueWave has developed and built more than 150 MW of solar projects to date. As built, these projects collectively generate enough solar energy to avoid more than 144,000 metric tons of carbon emissions annually. A certified B Corp, BlueWave has received national recognition for its work to protect the planet, and continues to innovate through community solar, energy storage, agrivoltaics, and floating solar technologies.

BlueWave's feedback in this proceeding is based on experiences related to distributed generation interconnection in Massachusetts, Maine, New York, and other Mid-Atlantic states. Our team has also contributed to a white paper of best practices for integrating distributed solar and storage to the grid.¹ Below, please find BlueWave's feedback corresponding to each finding and recommendation in the Guidehouse report.

Finding #1 – Implement IEEE 1547-2018

BlueWave supports the recommendations related to a technical working group.

¹ Coalition for Community Solar Access, *Integrating Distributed Solar and Storage: The keystones of a Modern Grid* (2021). https://www.communitysolaraccess.org/wp-content/uploads/2022/02/CCSA_BRO-White-Paper_20220214-1.pdf

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We also support the recommendation to adopt the newest IEEE 1547 standards, with one note about the implementation process. There are very few inverters currently on the market that are UL 1741 SB compliant, but many are entering production for availability in 2023. If there is a lack of equipment availability or corresponding certification documentation, we recommend implementing an exception or grace period and an accommodation of the market conditions (perhaps a delayed submission of documentation) for projects to come into compliance.

Finding #2 – Streamline/Automate IXC Application Process

BlueWave supports this recommendation. Data transparency and communication are important components of an efficient interconnection process. A software-based application platform (or portal) is the industry standard and can be extremely helpful to share milestone durations, approvals, and payments, as well as ensure efficient usage of utility resources. In Massachusetts, for example, utilities make a spreadsheet publicly available that shares the due dates for various payments and milestone timelines. The EDCs should ensure that their portals are automated to update regularly, and allow for back and forth messaging and two-way file sharing between the EDCs and applicants. In addition, BlueWave supports the application fee recommended for Level 1 projects.

Finding #3 – Align EDC Hosting Capacity Accuracy

BlueWave agrees that updated queue and installed capacity information will help developers make decisions about siting and ensure more viable projects are entering the queue. The EDCs should update NJAC and hosting capacity maps with additional and uniform information, including existing generation and cost estimates, the voltage and amperage rating of lines, and queue capacity for the feeder and substation transformer.

We recommend that the hosting capacity maps be current and integrated with the online interconnection platform for each utility territory described in finding #2. Such integration will help the hosting capacity maps accurately reflect the frequency of changes as more and more generation enters the queue and comes online.

Finding #4 – Institute Pre-Application Process (>500kW)

BlueWave is concerned about several unintended consequences that may arise during implementation of this recommendation. There is value in ensuring that small projects are protected from excessive study costs and lengthy study durations. In establishing an expedited track for these small projects, however, large projects must be safeguarded from the possibility of being “jumped” in the queue. Moving away from serial studies opens the door to countless restudies due to constantly changing baseline conditions, which becomes an unpredictable workload for the EDCs. We need all sizes of projects to move forward in order to meet the goals of the Energy Master Plan, and a predictable, transparent process will ensure projects come online in a timely and cost-effective manner.

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We urge the EDCs to implement queue-management strategies to avoid cost- and time-prohibitive delays for all projects, including:

- Lower the Level 2 threshold to 200kW.
- Shorten study periods for Level 2 projects but maintain queue order for all projects.
- Reserve a standard amount of capacity (1MW per feeder or ~10% of capacity per transformer) on each feeder and transformer for Level 2 projects.
- If a project moves forward with a system impact study, their queue position should be locked.

In addition, BlueWave supports the recommendation that pre-apps should be required for all projects above 500kW. To meet the objectives of this finding, and get viable projects in the queue, the pre-app needs to include valuable information similar to that included in hosting capacity maps described in finding #3. Hosting capacity maps are not always up to date, and a pre-application report could provide reliable verification of a circuit's information at the time of a reporting. This should include at a minimum how much capacity is installed and in queue on the feeder and substation transformer, and the total available capacity for the feeder and substation. With these measures, EDCs will face less congested clusters of applications as well as more realistic applications being submitted for viable projects. Once hosting capacity maps have fully incorporated the recommendations from the grid modernization report statewide and reflect real-time circuit data, pre-apps may be deemed redundant.

Lastly, we agree that pre-apps should be subject to a fee that can later be included toward the application fee if the project moves forward. Reasonable pre-app fees can range from \$750-\$1000.

Finding #5 – Encode Detail on IXC Rules

BlueWave supports the recommendation to implement a technical working group. Ongoing stakeholder involvement will be critical to ensure implementation of the entire grid modernization proposal. As industry members are typically current with the technological advances in the market, a diverse and collaborative working group can help the EDCs find nontraditional cost and time effective solutions to interconnection challenges. The technical working group should meet frequently and regularly, ideally monthly, and may need to break into topic-specific sub-groups later as issues are identified and prioritized.

In these forums, EDCs and industry can collaboratively solve issues that come up without needing to pursue an adjudicatory process. Further, we recommend that the BPU hire additional independent technical experts and ratepayer advocates to participate in any working groups and provide regulatory guidance.

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Finally, BlueWave supports the recommendation for having a consultant work with the EDCs to research and enable new technological capabilities in the pursuit of grid modernization. Areas of focus should include, but are not limited to, investments in advanced distribution management systems (DMS), supervisory control and data acquisition (SCADA) systems, and distributed energy management systems (DERMS). BlueWave recommends that the consultant be an active member of the proposed working group, and that their findings be shared with other stakeholders.

Finding #6 – Efficient Sequence of IXC Throughput

BlueWave supports the implementation of a uniform and streamlined queue process that holds both the EDCs and developers to tariff timelines. Each step of the interconnection process should be detailed in terms of deliverables and timeline for both parties. Typically, timelines for responses to inquiries or document requests range from 5-15 business days on both sides, and study timelines may range from 30-60 business days. Absent set deadlines, both developers and utilities may cause delays that negatively impact other projects in queue. BlueWave would support implementing timeline enforcement mechanisms to bring these incentives in line with the deployment goals outlined in New Jersey’s Energy Master Plan, as has been done successfully in other states including Massachusetts, Maine, and New York. Performance-based regulation mechanisms can be used to incentivize EDCs to meet milestones, and projects that fail to meet deadlines may be dequeued.

BlueWave recognizes that cluster studies have the potential to reduce interconnection timelines, identify shared distribution upgrade needs, and provide a basis for broader cost allocation. We urge the EDCs to implement the following best practices for cluster study administration:

- Cluster studies should provide transparency in how groups are geographically and electrically determined.
- Allow projects that have been in the queue longest (or that are first movers) to proceed without participating in a planned cluster study.
- The scope of any given group should be known before the cluster window opens, including which substations included are in the group, how long the cluster study window will remain open, and guaranteed timelines for all participants.
- Cluster studies should have timelines associated with each milestone, and timeline enforcement mechanisms applied accordingly.
- Withdrawal penalties can help deter speculative projects from entering into cluster studies, and should be reasonably scaled to the study fee.

Lastly, BlueWave supports the cost sharing measures detailed in this section. While we maintain that projects should continue to be studied in a serial fashion, we support efforts to streamline the entire interconnection process and allocate costs to **all** beneficiaries. Financial commitment,

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rather than other proposed measures related to project readiness, should be the measure of a project's ability to move forward.

Finding #7 – Grid Upgrade Cost Estimation/Allocation

As detailed above, BlueWave supports the recommendation to move away from the current practice of cost-causation. Distributed generation's many benefits to the grid and all ratepayers should be considered in establishing fair and transparent cost recovery policies.

Finding #8 – Integrated DER Plans and Defined Roadmap

BlueWave supports implementing integrated planning as part of the larger strategy toward grid modernization. Furthermore, BlueWave encourages the EDCs to coordinate with regional transmission organizations (RTOs) on long-term planning. We look forward to continued stakeholder engagement, specifically around the methodology for determining the costs and benefits of distribution plans. For example, an analysis of total buildable area would be helpful in determining paths to deploying distributed resources across the state, but such an analysis should include factors like town bylaws and construction limitations that EDCs may not have easy access to. Continued stakeholder input will be crucial to guide any analysis that will inform future grid planning and investments.

Finding #9 – Hybrid Solutions with Non-Renewables

BlueWave has no comments related to this recommendation.

Thank you for the opportunity to comment and for your commitment to stakeholder engagement in this proceeding. We look forward to continued collaboration that will modernize New Jersey's electric grid, provide cost-effective and efficient interconnections for much-needed distributed resources, and prepare us for the impacts of climate change. Please do not hesitate to reach out to us with any questions.

Sincerely,

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