March 14, 2025

Via Electronic Mail

Thomas Ferguson

100 Cambridge Street, 9th Floor,

Boston, MA 02114

RE: NineDot Energy's 83E Round 1 Comments

Dear Mr. Ferguson,

NineDot Energy, LLC ("NineDot") appreciates the opportunity to respond to the RFP Drafting Parties' February 21, 2025 request for feedback regarding the forthcoming Request for Proposals for mid-duration energy storage projects under Section 83E.

NineDot builds community-scale energy systems that support a more resilient electric grid, deliver economic savings, and reduce carbon emissions. NineDot is leading the way to urban clean energy and has constructed and is developing projects in the New York City area, with an emphasis on standalone battery storage. NineDot views these procurements as a vehicle for bringing our expertise working with front-of-meter ("FTM"), community-scale, distribution-connected projects in dense urban areas to the Massachusetts market. These community-scale projects represent a unique value proposition for the energy storage industry and are well-suited for land constrained geography such as the metro Boston area. These projects are large enough to reap a portion of the economies of scale enjoyed by utility scale projects, yet their location on the distribution grid allows for enhanced benefits to the grid relative to their larger transmission-connected counterparts. Since they are larger than customer-sited projects, which typically only benefit the customer they are connected to, and smaller than transmission-connected projects, which tend to have lengthier permitting and interconnection processes, they offer a combination of standardization and innovation that will allow the market to rapidly scale and provide system wide benefits, similar to assets in the SMART program.

Therefore, to ensure that these distribution-connected energy storage assets continue to be deployed in Massachusetts, the RFP Drafting Parties should:

1. Allow both transmission-connected and distribution-connected standalone energy storage resources to participate in the procurements under 83E
2. Create two tiers of resources in each procurement (transmission-connected and distribution-connected) which would each have their own individual procurement target
3. Allocate at least 20% of the initial procurement and at least 30% of the subsequent procurements towards distribution-connected projects, rolling over any unawarded capacity in each market segment into the same market segment in the subsequent next year.

4. Establish a working group with stakeholders to consider in the long-term a tariff-based mechanism for purchasing environmental attributes and other products from distribution-connected projects, which could also allow benefit sharing under a community storage model and build upon the Grid Services Study being conducted by MassCEC.

By implementing these recommendations, the RFP Drafting Parties can stimulate the distribution-connected storage market in Massachusetts and create a more successful and equitable program. Without these recommendations, the distribution-connected market will fall behind the transmission-connected market. This would send a negative signal to the industry, result in project attrition from interconnection queues, and cool investor interest in this market segment in Massachusetts. We provide additional details on each of these recommendations in response to a select number of the questions posed by the RFP Drafting Parties in their request for feedback.

Sincerely,

Lindsay Cherry

Director of Regulatory Affairs

NineDot Energy, LLC

To expand upon the four core recommendations in our introduction and to provide additional context to these responses based on our experience developing FTM distribution-connected projects, we respond to the following questions posed in the question document in the order that they appear.

1. Procurement Schedule:

a. ***The factors the RFP Drafting Parties should consider when designing the schedule for the 83E Round 1 solicitation, including deadlines for bid submission and selection of projects for negotiation. Please include as much specificity in key schedule milestones and timing as well as justification for preferred dates.***

NineDot does not have a specific proposal for the schedule for the 83E Round 1 solicitation but appreciates the opportunity for stakeholders to provide feedback. Understanding procurement schedules and milestones is critical for developers as they make key decisions regarding their projects in processes outside of the procurement process itself. To that end, the RFP Drafting Parties should strongly consider establishing procurement timeframes for future rounds of solicitations soon, alongside setting the procurement timelines for Round 1. Having a clear line of sight to future procurement opportunities will provide stability and confidence in the market that will support investment in new projects and encourage continued investment in existing projects, particularly projects in earlier stages of development.

2. Environmental Attributes:

a. ***The environmental attributes in addition to Clean Peak Energy Certificates ("CPECs") that could be procured from your project.***

Standalone energy storage projects on the transmission system and distribution system are not eligible to produce monetizable environmental attributes beyond CPECs. Given that CPECs are the only monetizable environmental attribute for standalone energy storage projects, procurements and programs which purchase CPECs from energy storage projects are critical for (1) valuing the services that these resources provide and (2) providing financial certainty to projects—both of which will help guarantee that Massachusetts achieves its statutory energy storage targets. Therefore, because CPECs are so critical to standalone energy storage deployment, and co-located energy storage projects with renewable energy generators already have mechanisms to secure revenue streams and produce significantly fewer CPECs due to the Contracted Resource and ES SMART multipliers, we recommend that procurements under 83E focus on standalone energy storage projects on the transmission and distribution system.

4. Eligible Bids:

a. ***Appropriate minimum and/or maximum bid size, both in terms of MW and Attributes.***

For distribution-connected projects, the RFP Parties should not include a maximum bid size as there are economies of scale with larger projects. In our experience, the interconnection process will naturally limit projects to the size that the grid can handle, and developers will optimize their projects based on available hosting capacity and the economics of making system upgrades based on the value that the resource would provide to the system. That said, we believe that the RFP Drafting Parties should carefully consider the portfolio risk they could face from awarding a small number of projects or contracts to a small number of project developers from the 83E solicitations. To mitigate this risk, we recommend the RFP Drafting Parties diversify this risk by implementing a cap on the total award from a

single project or project developer to a percentage (e.g., 50%) of the total procurement amount.

c. Appropriate project maturity requirements.

Designing appropriate project maturity requirements requires careful consideration of project development progress. There needs to be sufficient confidence that the assets will actually be deployed, without artificially limiting the pool of resources that may be able to provide the services sought in the solicitation. For distribution-connected projects, Massachusetts' complicated and lengthy interconnection and permitting processes make this increasingly difficult. Given the regulatory environment, we recommend the RFP Drafting Parties rely less on interconnection and permitting milestones (e.g., only requiring projects to provide proof of an active queue position and ability to submit applications for major permits within 120 days of award), and require a reasonable security deposit to mitigate potential project attrition instead. This security deposit could be scaled based on project size.

Unlike walk-up programs, like ConnectedSolutions and SMART, which provide ongoing opportunities to secure financing, procurements offer few, discrete opportunities to participate in a program making it difficult to align development, procurement and interconnection timelines. Therefore, the RFP Drafting Parties should allow for broader eligibility than walk-up program design to ensure the procurement awards go to the most cost-effective projects. Improvements to Massachusetts' interconnection data, including providing more accurate and dynamic hosting capacity maps with views into hosting capacity in the future, and interconnection processes, such as establishing the Long Term System Planning Process to proactively determine interconnection upgrades, should help projects identify more suitable site locations and reduce interconnection cost uncertainty which has driven project attrition in the past.

We believe there will be a significant number of distribution-connected projects interested in entering the market and seeking to interconnect driven by the implementation of these procurements, as well as the results of the Distributed Energy Resource Grid Services Study being conducted by MassCEC, and the development of infrastructure unlocking hosting capacity from Long Term System Planning Process. In the long-term, these procurements should reflect new interest in these programs from developers who can offer high value projects when these procurements go into effect. Therefore, the RFP Parties should carefully reevaluate interconnection study requirements future RFPs, so that also do not arbitrarily limit the pool of potential resources, while also preventing overly speculative projects from securing awards

5. Facilitating the Financing of Projects:

d. The risks associated with each revenue over the life of the project.

Currently, there are few opportunities for offtake contracts from energy storage projects in New England for wholesale market products, particularly for distribution-connected projects. Therefore, wholesale market risk is borne almost entirely by the project developer, and wholesale market revenue streams are significantly discounted by investors when evaluating projects. Even revenue streams which are intended to encourage project development and are expected to make up a significant portion of a project's revenue stack, like the capacity market, are heavily discounted by investors. This discount is elevated for markets undergoing significant reform, as future market outcomes are hard to predict, and further elevated where the reforms are expected to impact the revenues energy storage projects anticipate earning from them. ISO-NE's Capacity Auction Reform project, which is seeking to adjust auction timing and resource capacity accreditation, will likely negatively impact the capacity revenues for energy storage projects. We expect that this project will increase the volatility of capacity revenues for energy storage resources, as the amount of capacity that a resource will be able to offer into each auction will vary year-to-year, and will impact the amount of capacity that an energy storage will be able to sell through revised capacity accreditation techniques. While the magnitude of the impact is currently unknown and will remain unknown until indicative results are published near the end of 2025, uncertainty will remain until the next capacity auction in 2028, long after the procurements under section 83E.

6. Commercial Operation Date:

a. Any appropriate commercial operation date for Section 83E Round 1.

The RFP Drafting Parties should require that distribution-connected energy storage projects achieve commercial operation within 3 years of receiving an award, considering interconnection and development timelines. However, to recognize that due to factors outside of a developer's control, such as utility upgrade delays or extended timelines, we also recommend the Parties allow for projects to seek a limited extension, given that the project is making reasonable progress towards achieving commercial operation.

7. Resource Types:

a. Whether this procurement should allow for both transmission and distribution connected resources.

All procurements under 83E should include both transmission- and distribution-connected projects. Both market segments can provide the products and benefits sought in these solicitations and both market segments count toward Massachusetts' energy storage goals. The urgency of meeting climate and energy goals in the Commonwealth requires an all-hands-on-deck approach. Limiting these procurements to one market segment will significantly cool interest in development in the other, which would be a significant step backwards at an inflection point in the Commonwealth's energy transition.

As we covered in our response to Question 2.a and 5.d, contracts for CPECs are one of the only financing mechanisms for standalone FTM energy storage projects in Massachusetts right now. This is true for both transmission- and distribution-connected projects. Without these procurements, distribution-connected projects would not have a financeable revenue stream, nor a guarantee in CPEC value (which could fall in residual markets outside of these procurements). We fear that distribution-connected assets will not be built if they are not included in this procurement, despite the value they would bring to the system.

While transmission scale projects are valuable and necessary, distribution system projects can provide avoided cost, distribution-grid benefits near loads, and local environmental, reliability, and resilience benefits that transmission-connected projects are unable to provide. More specifically, distribution-connected projects:

- **Reduce distribution-level costs for MA consumers**. The "Avoided Energy Supply Cost" study used for energy efficiency and peak demand reduction cost-effectiveness estimates these costs at $198/kW for Eversource and $102/kW for National Grid[1]. A front-of-the-meter distribution connected resource should have similar cost reduction benefits to a behind-the-meter resource (New York's Value of Distributed Energy Resources ("VDER") program compensates behind-the-meter and front-of-meter resources similarly for avoided distribution).
- **Provide increased reliability and resilience**. With more extreme weather events due to climate change, recent storms have knocked down transmission lines which has prevented power from flowing into local areas. In these instances, consumers need distribution-connected resources to provide power.

In an effort to quantify the beneficial Grid Services that energy storage systems provide to the distribution grid, MassCEC is currently developing a methodology for valuing and compensating Distributed Energy Resources.[2] Because of this currently uncompensated additional value and the different costs for each market segment, we believe that these procurements should be split into two tiers of resources: (1) transmission-connected, and (2) distribution-connected; each with its own procurement

[1] https://www.synapse-energy.com/sites/default/files/inline-images/AESC%202024.pdf
[2] https://www.masscec.com/grid-modernization-and-infrastructure-planning/grid-services-study

target and criteria reflecting the expected contribution of each market segment to the total allocation of the target, which we expand upon in our response to Question 7.b.i.

b. The appropriate resource mix in Section 83E Round 1 procurement between distribution-connected QESS and transmission connected QESS.

i. If both distribution- and transmission-connected QESS are to be procured in Section 83E Round 1, please comment on:

1. The need, if any, for a carveout for either distribution- or transmission-connected QESS; and

The RFP Drafting Parties should allocate ~25-30% (875 - 1,050 MW) of the total mid-duration energy storage target (3.5 GW) to distribution-connected energy storage projects. Such an allocation would be consistent with designs in other regions, and which we believe to be an appropriate split to encourage development in both market segments[3]. To achieve this allocation, we propose that at least 300 MW of each procurement be allocated to distribution-connected projects (at least 20% of the Section 83E Round 1 solicitation and 30% of the Round 2 and 3 solicitations). Unawarded distribution-connected capacity should be rolled over into the next round of distribution-connected procurement. Capacity from one market segment should only roll into another market segment if there are still not enough MWs awarded in a market segment by the end of Round 3 and if there is not an alternative program available for that market segment which would be able to absorb the unprocured MWs.

2. The need, if any, for separate bidding criteria between distribution- and transmission-connected QESS to be considered by the RFP drafting parties.

While the general categories for the bidding criteria for transmission- and distribution-connected projects should be similar, the bidding and evaluation criteria should reflect differences in the development process for projects in each market segment. The categories could potentially include additional evaluation criteria if projects in a specific market segment provide additional resiliency or environmental justice value not captured in pricing already. For example:

- Interconnection process milestones and timelines are different for transmission- and distribution-connected projects depending whether the project is going through the utility interconnection process or ISO-NE's interconnection process
- Permitting process milestones and timelines are different for projects of different sizes depending on whether the project qualifies for ESFB review
- The RFP Drafting Parties may seek to include factors like local system resilience or distribution value in their evaluation criteria for distribution-connected projects

8. Contract Length and Form:

a. The contract length, for a period of up to 30 years, that should be considered under Section 83E Round 1 and associated reasoning, including how the contract term will facilitate the financing of the project, how the term aligns with useful life, augmentation schedules, etc.

[3] NY's 6 GW Energy Storage Order allocated 1,500 MW of the latest round of funding to Retail energy storage projects, bring the expected total allocation to ~1,800 MW (~30%) of the 6 GW target. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Energy-Storage/2024-06-6GW-Energy-Storage-Order.pdf

The RFP Drafting Parties should consider 15 years as an absolute floor on the term length for these contracts as this reflects the expected useful life of most energy storage equipment. The RFP Drafting Parties should feel confident that these assets will continue to deliver CPECs for at least that long. To make projects more attractive to investors and potentially lower cost capital, it is common practice to model projects for terms longer than 15 years, assuming project augmentation to maintain specified output levels. The longer these revenue streams can be contracted, the less future revenue streams will be discounted by investors. We recommend the Drafting Parties allow project developers to include their preferred contract term length, between 15 and 30 years, in their proposals, as that will let them provide the lowest offering considering the costs of financing and the cost of augmentation, which may vary from developer to developer.

c. For distribution-connected QESS, how the EDCs would develop manageable contract agreements, including but not limited to defined aggregations with one negotiated contract.

We are supportive of a portfolio approach to the procurement of distribution-connected projects, where a project developer would submit a single price/quantity representative of multiple discrete projects across the distribution system in a single all-or-nothing bid. Portfolios of projects allow developers to manage and hedge development and performance risk associated with a single project, while providing the RFP Drafting Parties the same benefits of individually contracting with a similar number of individual projects. This approach aligns with common methods for financing and funding distribution-connected projects, which is often done at a portfolio level. Awarding portfolios of projects allows developers to achieve lower financing costs than if each project was awarded a contract individually.

We believe these contracts would not need to significantly vary compared to contracts for individual projects if all of the distribution-connected projects are in the same EDC territory, as all environmental attributes and additional products would flow to the same entity.

9. Safety:

a. Which safety standards should be required as a minimum baseline.

The RFP Drafting Parties should look to national standards, guidance from the industry, and other programs across the country for determination of minimum safety standards for energy storage resources, including:

- NFPA: https://www.nfpa.org/education-and-research/electrical/energy-storage-systems?l=30
- UL: https://www.ul.com/services/industrial-battery-and-energy-storage-services
- EPRI: https://storagewiki.epri.com/index.php/Storage_Safety
- NY-BEST: https://ny-best.org/page/library
- ACP: https://cleanpower.org/resources/energy-storage-codes-standards/

10. Project Viability and Other Qualitative Factors:

b. The key elements that should be considered in evaluating project viability, including any minimum requirements for participating in the RFP. Please specifically comment on:

i. Site control

The RFP Drafting Parties should require site control (in the form of ownership, lease, or lease option) as a minimum requirement to bid.

ii. Interconnection studies

Please see our response to Question 4.d.

11. Grid Resiliency and Transmission Needs:

a. How Section 83E Round 1 may be designed to best encourage investments and commitments that maximize grid resiliency and fulfill transmission needs in specific geographic locations. Please be as specific as possible in describing resiliency and transmission needs.

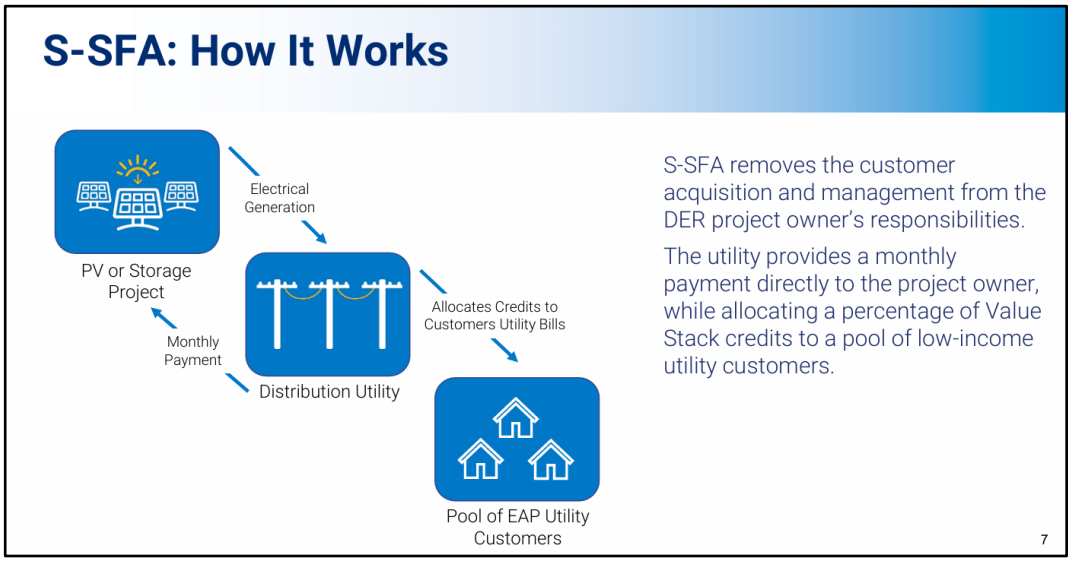
Distribution system owners are best positioned to identify locations where energy storage projects would have the most value to the system. Ideally these locations would be incentivized through price signals, which could be achieved through compensating distribution projects for additional grid services, as is being considered in MassCEC's Distributed Energy Resources Grid Services Study. If not achieved through price, solicitations should include non-priced evaluation factors which would encourage development in particular geographic regions or could include specific carve-outs for projects in particular geographic regions. We anticipate that the EDCs would identify these locations and clearly communicate them to potential bidders ahead of the solicitation. Recognizing the value the storage can provide to dense load centers, New York's energy storage program (both at the retail and bulk level) includes a carve out for projects located in NYC and has non-pricing factors which reward projects located in areas where they can provide system reliability and resiliency benefits.[4]

14. Environmental Justice:

a. How Section 83E Round 1 could be designed to best encourage project design and investments that avoid negative impacts on, and direct positive benefits of the project to, Environmental Justice ("EJ") communities.

The RFP Drafting Parties should consider a community-storage model similar to New York's Statewide Solar for All ("S-SFA") model, which provides distributed solar and standalone storage projects the opportunity to share credit value (in New York these credits are created through their VDER program) directly with eligible customers in return for an offtake contract with the local utility. This is shown on the slide below, taken from NYSERDA's October 30, 2024 webinar presentation on the same topic:

[4] NYSERDA Retail Implementation Plan: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={603F8595-0000-C451-B8D3-0FDA19DF65E5}
NYSERDA Bulk Implementation Plan: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={F099A092-0000-C938-98D5-9D3FB839557F}



Source: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/NY-Sun/Statewide-Solar-for-All-Webinar-Presentation-10_30_24.pdf

As the current procurement proposal already creates a contracting opportunity with the EDC, we would recommend that projects would be evaluated more favorably in the evaluation criteria for the RFP if they are willing to share a portion of the contract value directly with eligible customers, in the form of direct bill savings which could help offset rate increases caused with these contracts. We believe that this concept of direct bill savings will be a critical component of future programs and tariffs for distributed energy storage systems.

We also believe that additional non-price evaluation factors should be developed, with input directly from environmental justice communities and advocates, which would favor projects that would benefit environmental justice communities or otherwise mitigate the impact of these project (e.g. awarding projects additional evaluation points for siting on brownfields rather than greenfield development).

16. Future RFPs:

a. Whether and how the RFP drafting team should consider inclusion of energy services in future 83E RFP Rounds, both in terms of how future RFPs would be similar or different from 83E Round 1's RFP, which is only for environmental attributes.

As we covered in our response to Question 5.d, other revenue streams for energy storage projects in Massachusetts are subject to a significant amount of risk due to factors outside of an energy storage project developer's control. The greater certainty that a project can achieve in value streams outside of CPECs, the lower the cost will be for financing the project. For future RFPs, the RFP Drafting Partiers should consider including other services from these projects in these solicitations, especially if Massachusetts begins to compensate FTM storage for distribution system value. Centralized programs for multiple value streams, particularly for distribution-connected projects, will be more efficient than having assets participate in multiple programs. If resources separately qualify and contract for CPECs, distribution value through a grid services program, and wholesale market revenues, there is a high probability that these program timelines will misalign, resulting in unnecessary complexity with interconnection and permitting and potential inefficiency as projects drop out of one program as they wait to qualify for another. That being said, and as we expand on in our response to Question 17, we believe that procurements are not the most efficient, centralized way to contract with distribution-connected resources and we recommend that Massachusetts consider tariff or programmatic mechanisms which would provide an opportunity transact value outside of procurements and individual bespoke contracts.

17. Other:

a. Any additional comments that you believe should be known by or would be helpful to the RFP drafting team.

As the RFP Drafting Parties consider different mechanisms for contracting with energy storage resources for environmental attributes and other products moving forward, we'd propose that procurements are not the best method for incentivizing and contracting with distribution-connected energy storage projects. As was demonstrated with SMART and ConnectedSolutions, walk-up tariffs and programs with fixed rates, or rate guarantees, are the most effective mechanisms for attracting and deploying distribution-connected projects, while allowing the EDCs and ratepayers to take advantage of multiple value streams stemming from these projects avoiding the need to contract individual with potentially hundreds of distribution-connected projects. Given the various value streams that energy storage projects can deliver to the system and the flexibility that will be needed in the future to account for additional value streams as new grid needs arise, Massachusetts should consider creating a tariff which would compensate distribution-connected energy storage projects for the value they provide to the system. This tariff, like the VDER tariff in New York[5], could have multiple components and prices for different potential products. Recognizing that this is a topic that requires additional discussion, we believe that the region would benefit from a stakeholder process to explore a long-term vision for programs for distribution-connected assets, including energy storage. This group could build on the results of the Grid Services Study, the results of the initial Section 83E procurement, and the Department's experiences with existing DER programs to explore different models for centralized programs and tariffs for distribution-connected resources which we believe will unlock capability in an efficient and cost-effective manner. We are concerned that procuring multiple attributes across multiple programs in discrete opportunities without a vision for scalability will result in long-run inefficiency.

[5] The VDER Value Stack includes components for energy, capacity, environmental value, demand reduction value, and locational system relief value. https://www.nyserda.ny.gov/All-Programs/NY-Sun/Contractors/Value-of-Distributed-Energy-Resources